

Standard Operating Procedures for the Ongoing 2016 Residential Drinking- Water Well Surveying and PFAS Sampling Program

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1.0 Introduction

This document provides the standard operating procedures (SOPs) for implementing the Ongoing 2016 Residential Drinking-Water Well Surveying and Per- and Polyfluoroalkyl Substances¹ (PFAS) Sampling Program (ongoing 2016 program) near and around the Chemours Company (Chemours) Chambers Works Complex (Chambers Works) in Deepwater, New Jersey. Drinking-water wells eligible for sampling in this program include only wells permitted as Category 1 Potable Water Supply Wells. This document covers all processes from the identification of potential drinking-water wells and residential contacts by Chemours to offer drinking-water well sampling, through the implementation of treatment and ongoing operation, maintenance, and monitoring (OM&M), or follow-up monitoring (Qualification Re-Evaluation Program), where appropriate. All costs associated with this program from sampling through treatment implementation and OM&M (as needed) are Chemours responsibility.

1.1 Background

In 2009, E.I. du Pont de Nemours and Company (DuPont) agreed to implement a voluntary program to sample residential drinking-water wells within a 2-mile radius of Chambers Works. The purpose of this program was to evaluate the distribution of perfluorooctanoic acid (PFOA), one PFAS chemical, in off-site residential drinking-water wells within the survey area and to provide treatment as needed to reduce human exposure to PFOA in drinking water.

The surveying was conducted by developing a mailing list that included approximately 225 names and addresses, performing mass mailings, and establishing a call center to manage sampling requests. The program included the sampling of 110 residential drinking-water wells. Of the 110 drinking-water wells sampled, only one drinking-water well contained a PFOA concentration above the evaluation criterion used at that time [0.4 micrograms per liter ($\mu\text{g/L}$); the U.S. Environmental Protection Agency (USEPA) 2009 Provisional Health Advisory for PFOA]. A granular activated carbon (GAC) treatment system was installed in June 2009 to reduce human exposure to PFOA in the drinking water. Quarterly OM&M continues to be conducted to ensure the effectiveness of the GAC treatment system. Figure 1 depicts the flow chart for that program and its outcomes.

In June 2016, Chemours voluntarily began a follow-up surveying and PFAS sampling program within the same 2-mile radius of Chambers Works. The purpose of this program was two-fold:

- Further evaluate the distribution of PFOA and 13 other PFAS in residential drinking-water wells within the survey area.
- Reduce human exposure to the three PFAS for which the New Jersey Department of Environmental Protection (NJDEP) had accepted or proposed drinking-water criteria [PFOA, perfluorooctane sulfonate (PFOS) and

¹ “Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that have been manufactured and used in a variety of industries around the globe, including in the United States since the 1940s. Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) have been the most extensively produced and studied of these chemicals. Both chemicals are very persistent in the environment....” (<https://www.epa.gov/pfas/basic-information-pfas>)

perfluorononanoic acid (PFNA)]. On June 1, 2020 NJDEP promulgated standards for PFOA and PFOS.

For this program, the same mailing list was used as in the 2009 program. Letters were mailed to residents² requesting them to respond to the offer of sampling (or resampling, if the wells were sampled in the 2009 program) and analysis of the 14 PFAS. Over time, based on the results obtained, the survey area was expanded beyond the 2-mile radius. Currently, the program is referred to as the ongoing 2016 program and as of November 2020, approximately 200 drinking-water wells have been identified with concentrations of PFOA, PFOS, and PFNA above the evaluation criteria.

Since the ongoing 2016 program began in June 2016, the geographical area of the investigation has expanded and several of the processes used in the implementation of the program have changed. In addition, the criteria used for evaluation of the PFOA, PFOS, and PFNA results have been lowered, and the PFAS analyte list has been expanded. The purpose of this document is to describe the ongoing 2016 program and to provide descriptions of the current SOPs used to implement the program (see Figures 3 and 4).

1.2 Document Structure

The following information is presented in this document:

- The PFAS analytical list, the analytical method, and the evaluation criteria to which the results are compared are provided in Section 2.
- The SOP used for the development of a potential drinking-water wells address list, through the reporting of the results when drinking-water wells are sampled is provided in Section 3.
- The SOP used for the determination that a drinking-water well exceeds the evaluation criteria and is qualified for an offer of treatment by Chemours, through the completed treatment implementation is provided in Section 4.
- The SOP used for OM&M of GAC treatment systems after installation by Chemours is provided in Section 5.
- The SOP used for the determination that a drinking-water well does not exceed the evaluation criteria and is not qualified for an offer of treatment, through inclusion in the Qualification Re-Evaluation Program (a seven-year monitoring program of annual and biennial events) is described in Section 6.

² In these SOPs, the term “resident” refers to both the owner of the property and the drinking-water well and any person who lives in the residence and consumed the well water but is not the owner of the property (a renter or tenant, for example). However, in Sections 4 and 5, there is a distinction made between a resident and a property owner because only a property owner can accept treatment that requires modification to the property.

2.0 PFAS Analytes, Analytical Method, and Evaluation Criteria

2.1 PFAS Analytes and the Analytical Method

On June 3, 2016, the *Quality Assurance Project Plan for the PFAS Drinking Water Sampling Program, Chemours Chambers Works, Deepwater, New Jersey* was submitted to Mr. Sin Kie Tjho (the USEPA Region 2 Project Manager at that time) and was also copied to Ms. Linda Range (the NJDEP case manager at that time). This document, which described the PFAS analytes and analytical methods to be used for the project, was approved by Mr. Tjho on June 9, 2016. As per the *Quality Assurance Project Plan for the PFAS Drinking Water Sampling Program, Chemours Chambers Works, Deepwater, New Jersey, Revision 3* (QAPP Rev 3³; AECOM, 2020), drinking-water samples from wells identified in the ongoing 2016 program are currently analyzed for 18 PFAS by an analytical laboratory with a New Jersey certification for Drinking Water Method 537.1. The current list of analytes, method abbreviations, Chemical Abstracts Service (CAS) numbers and reporting limits (RLs) in µg/L are as follows.

Analyte	Compound Abbreviation	CAS Num	RL (µg/L)
N-ethyl perfluorooctane sulfonamidoacetic acid	NEtFOSAA	2991-50-6	0.003
N-methyl perfluorooctane sulfonamidoacetic acid	NMeFOSAA	2355-31-9	0.002
Perfluorobutanesulfonic acid	PFBS	375-73-5	0.002
Perfluorodecanoic acid	PFDA	335-76-2	0.002
Perfluorododecanoic acid	PFDoA	307-55-1	0.002
Perfluoroheptanoic acid	PFHpA	375-85-9	0.002
Perfluorohexanesulfonic acid	PFHxS	355-46-4	0.002
Perfluorohexanoic acid	PFHxA	307-24-4	0.002
Perfluorononanoic acid	PFNA	375-95-1	0.002
Perfluorooctanesulfonic acid	PFOS	1763-23-1	0.002
Perfluorooctanoic acid	PFOA	335-67-1	0.002
Perfluorotetradecanoic acid	PFTeA	376-06-7	0.002
Perfluorotridecanoic acid	PFTriA	72629-94-8	0.002
Perfluoroundecanoic acid	PFUnA	2058-94-8	0.002
Hexafluoropropylene oxide dimer acid	HFPO-DA	13252-13-6	0.002
4,8-dioxa-3H-perfluorononanoic acid	ADONA	958445-44-8	0.002
11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid	11C1-PF3-OUdS	763051-92-9	0.002
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid	9C1-PF3-ONS	756426-58-1	0.002

Additional details regarding the analytical laboratory and PFAS analysis can be found in the QAPP Rev 3. Note that:

- The analytical method can be changed with the concurrent approval of the USEPA and the NJDEP.

³ The QAPP Rev 3 was submitted to USEPA and NJDEP on November 13, 2020 and was approved by USEPA and NJDEP on December 1, 2020.

- The analytical methods selected will be as per the USEPA and NJDEP regulatory requirements.
- The analytical laboratory selected will be certified by the State of New Jersey for the approved analytical method and analyte.
- Additional PFAS analytes may be included based on site conditions or changes in regulatory requirements.
- The QAPP Rev 3 will be continually updated to reflect the current sampling procedures, analytical method, analyte list, and evaluation criteria.

2.2 Evaluation Criteria

Currently, Chemours is implementing the New Jersey Drinking Water Standards for PFOA, PFOS, and PFNA. The New Jersey Drinking Water Standards are the following:

- PFOA at 0.014 µg/L
- PFOS at 0.013 µg/L
- PFNA at 0.013 µg/L

A drinking-water well that has a PFOA concentration equal to or greater than 0.014 µg/L or a PFOS or PFNA concentration equal to or greater than 0.013 µg/L will qualify for an offer of treatment (see Section 3.6 and 4). A drinking-water well that has a PFOA concentration less than 0.014 µg/L and a PFOS and PFNA concentration less than 0.013 µg/L, will not qualify for an offer of treatment but will be included in the Qualification Re-Evaluation Program (see Section 6).

Each of the remaining 15 PFAS compounds do not have a New Jersey Drinking Water Standard. The compounds are included in the analysis for informational purposes only (analytes presence/absence). An evaluation of an analytical result will occur upon the USEPA's or the NJDEP's development of a criterion.

3.0 Development of Drinking-Water Well Owner Contact List Through Issuing of the Result Letters

This section lists the sequential steps that are followed by the Chemours representative in implementing the ongoing 2016 program from the development of a resident address contact list where a drinking-water well may be used through the issuing of the result letter for the drinking-water wells sampled.

3.1 Residential Contact List Development

A list of addresses that are to be included in the current phase of investigation of the ongoing 2016 program has been developed. Lists of residents to be included in a specific phase are developed via several methods including searches of a tax information database (http://tax1.co.monmouth.nj.us/cgi-bin/prc6.cgi?&ms_user=monm&passwd=data&srch_type=1&adv=2&out_type=2&district=1700), a GIS mapping database (NJ GeoWeb: <https://www.nj.gov/dep/gis/geoweb splash.htm>), a well search database (NJDEP DataMiner: <https://www13.state.nj.us/DataMiner>), and/or field reconnaissance by Chemours representatives. In some situations, specific resident address lists or potential drinking-water well location address lists were or may be provided to Chemours by USEPA or NJDEP. In addition, new well permits are tracked using publicly available databases and/or a publicly available database tracking service⁴ and offer letters are mailed to residents or property owners offering sampling of drinking-water wells.

3.2 Residential Outreach

Each resident included in the current phase of the ongoing 2016 program is contacted and offered sampling of drinking-water wells via mailing a series of three drinking-water well sampling offer letters (referred to in the remainder of these SOPs as “sampling offer letters”), three weeks apart. See Appendix A for an example of the type of surveying and sampling offer letter typically sent⁵. Electronic copies of offer letters are shared with USEPA and NJDEP (see Table 1). In July 2019, Chemours implemented a new process of adding a self-addressed, stamped, response postcard with each offer letter mailed (see Appendix B for an example). The response postcard has several check boxes that encourage the resident to request sampling or otherwise share the reason that the offer is not being accepted. If tax records indicate that the property owner does not live where the potential drinking-water well is located, a duplicate letter is mailed to the property owner’s address that includes the potential drinking-water well address in the subject line to indicate that sampling is being offered. All outreach efforts for residents and property owners are tracked in the evergreen (draft versions that are continuously updated) residential contacts spreadsheet⁶ that is used to document responses to offer letters and sampling completed. The evergreen residential contacts spreadsheet is provided to USEPA and NJDEP on an approximate monthly basis, prior to project status conference calls. Note that either the resident or the property owner may request

⁴ The database tracking service currently used by Chemours provides updates each month.

⁵ All example letters provided in these SOPs reflect current templates and are subject to modification in the future.

⁶ The title of this evergreen spreadsheet has varied over time based on the phase of the investigation being implemented. With approval of these SOPs, the title of this spreadsheet will change to Evergreen Residential Contacts XXXXXX, where XXXXXX is the month, day and year through which the spreadsheet has been updated (for example, 102919 for October 29, 2019).

sampling of the drinking-water well. The drinking-water well will also be sampled if the resident requests sampling, but the owner does not or is non-responsive to the sampling offer.

3.3 Process Responses to the Sampling Offer Letters

Sections 3.3.1 through 3.3.5, respectively, describe the procedures to be followed for the responses to the sampling offer letters including:

- Letters returned to Chemours
- Letters mailed for which there is no response from the resident
- Responses where there is no well or the well is not used
- Responses that are declines of the sampling offer
- Responses where the offer to sample is accepted

All responses are depicted in Figure 2 and are tracked in the evergreen residential contacts spreadsheet.

3.3.1 “Return to Sender” (RTS) Letters Procedures

All letters received back by Chemours as “Return to Sender” (RTS), which indicates that the intended recipient did not receive the letter, are evaluated. Offer letters may be returned by the postal service to Chemours marked as RTS due to a variety of reasons including, but not limited to:

- No Such Number
- No Such Street
- Not Deliverable as Addressed
- Insufficient Address
- No Mail Receptacle
- Attempted – Not Known
- Unclaimed
- Forward Time Expired

In these situations, the Chemours representatives search available tax databases, or contact municipal tax clerks, or conduct field reconnaissance to find additional name or address information to ensure that the resident receives the sampling offer letter. In other cases, the name initially used with the address is changed to “Resident”, or the Chemours representative may attempt to hand deliver the sampling offer letter. If several different attempts are made and the Chemours representative still does not believe the sampling offer letter was received by a resident, this information is shared with USEPA and NJDEP for additional follow-up.

In addition, some RTS letters are marked as “Vacant.” In this case, the Chemours representative will on an annual basis visit the location to see if any signs of occupancy are evident. If so, sampling offer letters will be mailed addressed to “Resident.” In addition, the Chemours representative will also track the address using publicly available databases or a publicly available database tracking service, so that if the property changes ownership, the new property owner can be offered sampling of the

drinking-water well, if one is used. Property ownership changes and new sampling offers are tracked in the evergreen residential contacts spreadsheets. If the property owner's address is different from the resident's address and the resident's sampling offer letter is RTS as vacant but the property owner's sampling offer letter is not RTS, the resident's address (and associated owner's address) is tracked as "non-response." Processing of these situations is described in Section 3.3.2.

3.3.2 Non-Response Residents Procedures

All addresses for which residents that are non-response after completion of the mailing process as described in Section 3.2 are documented and tracked. Non-response indicates that because the offer letter was not returned as RTS, Chemours assumes the intended recipient received the offer letter(s) and did not choose to respond either by calling the Chemours representative or filling out the response postcard and mailing it back. For non-response residents, Chemours will annually perform a mailing of one sampling offer letter (see Appendix A for an example of the type of letter that will typically be sent). If the resident responds at any time, then Section 3.3 will be followed based on the response. In addition, the addresses for non-response residents will be monitored using publicly available databases or a publicly available database tracking service so that if the property changes ownership, the new resident or property owner can be offered sampling of the drinking-water well, if one is used. In addition, if the tracking service indicates that the address is in foreclosure or lender-owned, Chemours will send the listed party a sampling offer letter.

3.3.3 No Well or No Well Used Procedures

All situations where no well is used are documented and tracked. Previously, some residents who have received the sampling offer letter or postcard have notified the Chemours representative that the residence is connected to a public water supply (PWS) and no further sampling offers are needed. If a resident, who received the sampling offer letter or postcard, notified Chemours that the residence is connected to PWS, the address will be provided to the NJDEP. The NJDEP will determine if the address is located within a PWS area. If the address is not located within a PWS area, Chemours will track the residence's address using publicly available databases or a publicly available database tracking service, so that if the property changes ownership, the new resident or property owner can be offered sampling of the drinking-water well, if one is used. For residences that have a well, but it is not currently used as a drinking-water source, Chemours will contact the resident by mail annually to confirm the well is still not being used as a drinking-water source and will continue to track the residence's address using publicly available databases or a publicly available database tracking service so that if the property changes ownership, the new resident or property owner can be offered sampling of the drinking-water well, if one is used.

3.3.4 Declines of the Offer to Sample Procedures

One of the check boxes on the response postcards included with the mailing is for declining the offer of sampling. All postcards returned to Chemours indicating a decline of the offer of sampling or phone calls to Chemours indicating a decline of the sampling offer are documented and tracked. Residents that decline the offer of sampling will be re-contacted on an annual basis by mail, to again be offered sampling. In addition, the addresses for declines will be monitored using publicly available databases or a publicly available database tracking service so that if the property changes ownership, the new

resident or property owner can be offered sampling of the drinking-water well, if one is used.

3.3.5 Sampling Offer Accepted Procedures

The Chemours representative logs all resident contact information, phone calls, voice mail messages and postcards that the Chemours representative receives and schedules the sampling of the drinking-water well at the convenience of the resident.

Note that either the resident or the property owner may request sampling of the drinking-water well. The drinking-water well will also be sampled if the resident requests sampling, but the property owner does not or is non-responsive to the offer of sampling. If a resident has previously declined the offer of sampling, but now has contacted the Chemours representative and requests sampling, the Chemours representative will schedule the sampling of the drinking-water well.

When a resident with a drinking-water well located within the current or a previous investigation area first contacts the Chemours representative, the following actions are taken:

1. The Chemours representative returns the phone call within two to three business days of a resident calling the Chemours representative.
2. Upon reaching the resident, the Chemours representative verifies that the drinking-water well is located within the current or previous investigation area, and schedules sampling at the resident's convenience. The Chemours representative will also ask if the resident is the property owner.
3. If the drinking-water well is located outside of the current or previous investigation areas, the Chemours representative notifies the resident that if the investigation is expanded to where the well is located, the Chemours representative will follow-up with a sampling offer letter.
4. If the resident then declines the offer of sampling, the process in Section 3.3.4 is followed.
5. If the resident does not answer the phone, the Chemours representative leaves a message asking the resident to call back at their convenience. If the resident does not return the Chemours representative's call, the Chemours representative leaves at least three messages encouraging the resident to return their call.

In some cases, the Chemours representative will visit the residence to see if the resident can be contacted. If the resident is not home, the Chemours representative will leave a "we missed you" notification, typically a hang tag⁷ that indicates that the Chemours representative stopped by and provides contact information to encourage the resident to respond.

6. If the resident is non-responsive to the Chemours representative's multiple attempts to contact the resident, that information is shared with USEPA and NJDEP, for their continued follow-up, if appropriate.

⁷ Hang tags are typically left any time the Chemours representative stops by a residence and the resident is not home.

3.4 Drinking-Water Well Sampling

Chemours representatives that conduct PFAS sampling must have completed the AECOM internal PFAS Sampling Training. At the prearranged date and time, the Chemours representative arrives at the residence and typically samples the drinking water from a kitchen tap; although, if the resident requests, samples can be collected from any faucet (outside tap, bathroom, etc.). If the resident has a preexisting treatment system, then a sample of the untreated water that enters the treatment system (identified as “Pre”) and a sample of the treated water that is distributed through the residence (identified as “Post”) are collected and analyzed. Drinking-water sampling is conducted as per the QAPP Rev 3.

Drinking-water samples are typically shipped to the laboratory for analysis on Tuesdays to ensure receipt by the laboratory on a weekday, as issues were encountered previously when samples arrived at the laboratory on weekends. Turnaround time for the samples is requested to be three weeks from receipt at the laboratory. However, laboratory capacity may dictate the turnaround time provided.

3.5 Data Review and Qualification for an Offer of an Alternate Water Source

Drinking-water analytical results are reviewed and finalized in accordance with the QAPP Rev 3. Drinking-water results are compared to the currently applicable evaluation criteria, which are provided in Section 2.2. Residents with drinking water that exceed the applicable screening criteria are qualified to receive an offer of treatment from Chemours. The alternate potable water sources available to the homeowners are as follows:

- Bottled water can be provided as an interim source or a long-term source.
- A Point of Entry Treatment System in the form of a Granulated Activated Carbon (GAC) treatment system can be installed.
- A Public Water connection, if available, can be used.
- The owner of an impacted well has the option, at their own expense, to install a replacement well. If the well owner informs Chemours a replacement well was installed, Chemours will offer sampling of the well. If the well is impacted, the same procedures will apply as to the original well.

The process of notifying a resident that a drinking-water well is qualified for treatment is started at the same time as the letter generation process. In cases where the property owner is not the resident, the property owner is also notified that the drinking-water well is qualified for an offer of treatment. The Chemours representative calls the resident to inform them that their results notification letter is being generated and that if any concentration in the well exceeds the evaluation criteria, then the well will be qualified for treatment. The resident is offered bottled water until treatment has been implemented. Residents who are not the property owner can still accept the offer of bottled water. If the Chemours representative does not directly speak with the resident, the Chemours representative leaves a message offering bottled water and requesting the resident to call back and let the Chemours representative know if they do or do not want to accept the bottled water provision. In addition, the Chemours representative will inform the resident of the property owner’s treatment decision.

3.6 Notification of Results

Drinking-water result letters are prepared and mailed per the NJDEP Technical Requirements for Site Remediation N.J.A.C. 7:26E. The results in the letter will be reported in units of $\mu\text{g/L}$ (where $0.001 \mu\text{g/L}$ equals 1 ng/L) per N.J.A.C. 7:26E-1.6. Private personal information (PPI), as defined by Chemours, includes names, addresses, telephone numbers and location IDs (a version of the street address used to identify the drinking-water well) and is information that Chemours believes it should not share publicly. Therefore, each drinking-water well sampled is also assigned a regulatory location identification number (REG LOC ID). After December 1, 2020, the REG LOC ID assigned to the drinking-water well sample will be included in the results letter. For drinking-water wells sampled prior to December 1, 2020, a letter had been sent to the drinking-water well owner that notified the owner of the assigned REG LOC ID. Owners who are not the resident are requested to share the REG LOC ID with the resident.

Electronic copies of the result letters are also provided to the Salem County Health Department, the municipal clerks for the township in which the drinking-water well is located, USEPA, and NJDEP (see Table 1). Each time result letters are mailed, USEPA and NJDEP are also provided with the evergreen results spreadsheet⁸ that includes all results for drinking-water wells sampled as part of the ongoing 2016 program. The results spreadsheet will be reported in units of $\mu\text{g/L}$ (where $0.001 \mu\text{g/L}$ equals 1 ng/L) per N.J.A.C. 7:26E-1.6. Associated with the evergreen results spreadsheet is an evergreen map⁹, which provides results finalized to date for that specific phase of investigation in the ongoing 2016 program. The evergreen spreadsheet and map are provided prior to monthly meetings with USEPA and NJDEP. Periodically, a set of comprehensive evergreen maps that include all results for drinking-water wells sampled in the ongoing 2016 program are also updated and shared with USEPA and NJDEP.

3.6.1 Drinking-Water Wells That Exceed the Evaluation Criteria and Are Offered Treatment

If the drinking-water well results exceed the evaluation criteria (see Section 2.2) and is qualified for treatment, the procedures presented in Section 3.5 are followed to verbally notify the resident of the qualification for treatment. Within five days of data finalization, a result letter is generated and mailed to the resident (see Appendix C for an example of the type of letter that will typically be sent). Result letters for drinking-water wells that are above the evaluation criteria include a decline sheet that the resident can use to formally decline the offer of treatment, if they choose to do so. In situations where the resident is not the property owner, a duplicate result letter is mailed to the property owner.

When drinking-water wells exceed the evaluation criteria, the procedures described in Section 4 are followed. If a GAC treatment system is installed, then the procedures in Section 5, which describe the quarterly OM&M program, are also followed.

⁸ The title of this evergreen spreadsheet is USEPA NJDEP Results Spreadsheet XXXXXX where XXXXXX is the month, day and year through which the spreadsheet has been updated (for example, 102919 for October 29, 2019). With approval of these SOPs, the title of this spreadsheet will change to Evergreen Results Mailed XXXXXX.

⁹ The titles of the evergreen maps have varied over time based on the phase of the investigation being implemented. With approval of these SOPs, the title of this evergreen map will change to Evergreen Results Map XXXXXX, where XXXXXX is the month, day and year through which the map has been updated (for example, 102919 for October 29, 2019).

3.6.2 Drinking-Water Wells That Exceed the Evaluation Criteria and Are Not Offered Treatment

In almost all situations, drinking-water wells that exceed the evaluation criteria (see Section 2.2) receive offers of treatment. However, to date, there have been three types of situations where a drinking-water well that exceeded the evaluation criteria was not offered treatment. These three situations include the following:

- One resident connected the residence to a PWS after the sample had been collected, but before the results were available. When the results showed that the drinking-water well was qualified for treatment, Chemours reimbursed the resident for the PWS connection cost.
- One resident requested sampling of a barn well. The result indicated that the barn well exceeded the evaluation criteria. However, the barn well was later determined not to be a potable well. In this case, the primary drinking-water source was the well at the residence, which was below the evaluation criteria.
- A few residents have drilled new wells during the ongoing 2016 program. Any time a new well is drilled, the resident can request sampling once the well is connected to the residence. If the new well drilled did not exceed the evaluation criteria, the GAC treatment system will be removed or bottled water will no longer be supplied.

3.6.3 Drinking-Water Wells That Do Not Exceed the Evaluation Criteria

If the drinking-water well results do not exceed the evaluation criteria, the well does not qualify for treatment. A results notification letter is generated and mailed to the resident within 30 days of review of final laboratory data (see Appendix D for an example of the type of letter that will typically be sent). The results in the letter will be reported in units of $\mu\text{g/L}$ (where $0.001 \mu\text{g/L}$ equals 1 ng/L) per N.J.A.C. 7:26E1-6. In addition, the well would then be included in the Qualification Re-Evaluation Program. This program will be implemented with the approval of these SOPs and consists of seven years of sequential annual and biennial monitoring events, as described in Section 6.

3.6.4 Reporting

Drinking-water well sampling analytical reports will be submitted semiannually on the last business day of May and November each year:

- The report will contain the analytical data, an evaluation of the analytical data, and a schedule for future sampling.
- The results will be reported in units of $\mu\text{g/L}$ (where $0.001 \mu\text{g/L}$ equals 1 ng/L) per N.J.A.C. 7:26E-1.6.
- Full data deliverables will be submitted to the NJDEP as per N.J.A.C. 7:26E-2.1.

4.0 Treatment Offer for Qualified Drinking-Water Wells Through Completed Treatment Implementation

This section lists the steps that are followed by the Chemours representative in implementing the ongoing 2016 program from the determination that the results for a drinking-water well exceed the evaluation criteria through the completed treatment implementation.

Residents or property owners receiving an offer of treatment from Chemours are pulled into a separate spreadsheet that tracks the treatment type to be offered and all actions taken from the acceptance or declining of the offer of temporary bottled water through completion of the treatment implementation. This evergreen spreadsheet¹⁰ is provided to EPA and NJDEP on an approximately monthly basis, prior to project update conference calls.

4.1 Treatment Options and Property Ownership

Treatment options offered are a function of the property ownership because only a property owner can accept treatment that requires modification to the property such as installation of a GAC treatment system or PWS connection.

Where there is a resident and property owner, and the property owner accepts the offer of treatment for the drinking-water well, the following treatment options will be offered, as applicable:

- Temporary provision of bottled water until such time as permanent treatment is implemented, and
- Connection to a PWS, where practical, or
- Installation of a GAC treatment system, or
- Provision of long-term bottled water for the resident.

Figure 3 depicts the flow chart for the drinking-water wells qualified for treatment and possible outcomes.

4.1.1 Non-Response to the Treatment Offer Procedures

If the property owner is non-responsive to the offer of treatment, the only treatment option offered to the resident is provision of long-term bottled water. In addition, the Chemours representatives will make several attempts to get the property owner to respond to the offer of treatment. If none of those contact attempts with the property owner are successful, then the Chemours representative will share this information with EPA and NJDEP for additional follow-up. Further, the Chemours representatives will track the address using publicly available databases or a publicly available database tracking service, so that if the property changes ownership, the new owner can be notified of the qualification for treatment.

¹⁰ The title of this evergreen spreadsheet is the Evergreen Installation Spreadsheet XXXXXX where XXXXXX is the month, day and year through which the spreadsheet has been updated (for example, 102919 for October 29, 2019). With approval of these SOPs, the title of this spreadsheet will change to Evergreen Treatment Status XXXXXX.

4.1.2 Declines of the Treatment Offer Procedures

If the property owner verbally declines the offer of treatment by Chemours at any point, the Chemours representative encourages the property owner to sign the decline paperwork included in the result letter (see Appendix C for an example of the type of letter that will typically be sent). Property owners who decline the offer of treatment will be re-contacted on an annual basis by mail to verify that the resident still wants to decline the offer of treatment. Residents who are not the property owner will be offered long-term bottled water even if the property owner declines the treatment offer. In addition, the addresses for declines will be monitored per Section 3.2.

4.2 Evaluation of Treatment to be Offered PWS Connection

The Chemours representative evaluates the location of the drinking-water well with respect to the type of treatment to be offered. The first option evaluated is connection to PWS and effective December 1, 2020, abandonment (sealing) of the drinking-water well per the NJDEP's Well Construction and Maintenance; Sealing of Abandoned Wells N.J.A.C. 7:9D, to be protective of the homeowner and to reduce the risk of the well being reconnected for residential use¹¹. Existing public water lines are evaluated to determine whether a connection to PWS can be offered. In some cases, the PWS is contacted to confirm if PWS is available or not. If PWS connection is not offered for the location, the treatment offered is the installation of a GAC treatment system or a long-term provision of bottled water.

4.3 The Treatment Interview with the Resident

The Chemours representative re-contacts the property owner of the drinking-water well qualified for treatment and schedules a time to discuss the result letter and explain the treatment option(s) being offered by Chemours. In some cases, the property owner may authorize the Chemours representative to work with the resident on treatment installation.

The Chemours representative arrives at the prearranged meeting time to discuss the result letter, the treatment offered by Chemours and to answer any question the property owner may have regarding treatment or other related topics, if the Chemours representative is qualified to do so. Alternatively, if the Chemours representative is not qualified to answer the specific question, the property owner is referred to EPA or NJDEP.

Listed below are the procedures followed based on the type of treatment offered:

- **Long-Term Bottled Water:** To date, there have only been a few situations where long-term bottled water has been requested by the resident or property owner. When long-term bottled water is offered and accepted, the resident signs a bottled water offer letter (see Appendix E for an example of the type of letter that will typically be sent), and the Chemours representative sets up a schedule for bottled water delivery and delivery begins.
- **PWS Connection:** If a PWS connection is offered, during the interview with the resident or property owner, the Chemours representative will:

¹¹ Chemours is working with the residents that had PWS connections completed prior to December 1, 2020 to either permit the well as a non-potable well, if possible, or abandon the well.

- Provide the most recent information sheet from New Jersey Department of Health (NJDOH) regarding PFAS in drinking water (updated September 2020; see Appendix F).
- Explain that included with Chemours PWS connection offer is the requirement that the drinking-water well be abandoned and that the costs for well abandonment will be covered by Chemours. In addition, explain that the costs of the PWS connection will be covered by Chemours, but that future water bills will be the resident's or property owner's responsibility.
- Answer any questions that the property owner has regarding PWS connection and the drinking-water well abandonment and/or refer the property owner to NJDEP or USEPA if questions arise that the Chemours representative is not qualified to answer.
- Review the Public Water Connection Agreement (see Appendix G for an example of the type of agreement that will typically be used). Note only the property owner can sign this agreement.
- **GAC Treatment:** If GAC treatment is offered by Chemours, during the interview with the resident or property owner, the Chemours representative will:
 - Provide the most recent information sheet from NJDOH regarding PFAS in drinking water (updated September 2020; see Appendix F).
 - Provide a photograph of what a typical GAC treatment system looks like (see Appendix H).
 - Evaluate the plumbing in the home via a questionnaire and a visual assessment and make a preliminary decision regarding where the system can be installed, or if space or other constraints require installation outside of the home (typically inside of a stand-alone shed).
 - Discuss the proposed location for the installation of the GAC treatment system with the property owner.
 - Review the GAC Treatment System Installation, Operation, and Maintenance Agreement (OM&M Agreement; see Appendix I for an example of the type of agreement that will typically be used). Note only the property owner can sign this agreement.
 - Answer any questions that the resident or property owner has regarding GAC treatment and/or refer the resident or property owner to NJDEP or USEPA if questions arise that the Chemours representative is not qualified to answer.

After the PWS Connection Agreement or the OM&M Agreement is signed by the property owner, the agreement is forwarded to Chemours for countersigning. After the agreement has been countersigned by Chemours, the treatment implementation is scheduled at the resident or property owner's convenience.

4.4 Treatment Implementation

Implementation of treatment follows the steps below based on the acceptance of the treatment offer.

- **PWS Connection:** If the treatment to be implemented is a PWS connection, a copy of the signed and counter signed PWS Connection agreement is provided

to the property owner. The Chemours representative then assists the property owner in submitting a service application to the PWS. Once the application is approved, the plumbing subcontractor installs residential plumbing from the house to the water meter while the PWS installs the water meter. Once the meter is installed, the PWS starts sending bills directly to the resident or property owner. The Chemours representative will then schedule the well abandonment by a New Jersey licensed water well contractor at the convenience of the resident. In the event the property owner reneges on the agreement to seal the well, USEPA and NJDEP will be notified. The date of the PWS connection and the date of well abandonment will be documented in the evergreen treatment status spreadsheet.

- **GAC Treatment System Installation:** If the treatment to be implemented is a GAC treatment system installation, the Chemours representative provides a copy of the signed and counter signed OM&M agreement to the property owner and schedules an installation appointment with the resident or property owner. The Chemours representative instructs the plumbing subcontractor to obtain a water treatment permit. During the installation appointment, the following activities are completed by the Chemours representative:
 - Review the GAC treatment system installation location with the resident or property owner and the plumbing subcontractor and confirm that the property owner has approved of the location. Identify any resident belongings that need to be moved. No belongings of the resident will be touched or moved without the resident's approval.
 - Provide oversight for the installation while the plumbing subcontractor completes all needed work to install the system.
 - Inform the resident or property owner when the water will be shut off and when the water is turned back on.

If, at any point in time, the situation seems uncomfortable or unsafe, the Chemours representative and the plumbing subcontractor will stop work, remove themselves from the situation, relocate to a safe place, and contact the AECOM Project Manager and Chemours. If necessary, the Chemours representative may also contact the authorities.

Once the GAC treatment system has been installed, the Chemours representative will review the system with the resident or property owner. The resident is reminded that nothing should be placed near or around the GAC treatment system. The location of the Chemours representative's contact information and the GAC treatment system identifier that reads "GAC for PFAS Removal" is pointed out. The three-valve bypass is demonstrated so that the resident or property owner knows that, in case of an emergency, they can bypass their system. The resident or property owner are reminded, however, that it is preferable that only a Chemours representative or the plumbing subcontractor bypass the system. The property owner is then made aware of some possible after effects of the GAC treatment system including bubbles in their water, pockets of air in the line, and that sometimes there are small pieces of carbon that can be seen in a glass of water or bath, but that all of these are normal and will dissipate in the few days following installation. The Chemours representative will again leave contact information and will then inform the resident or property owner of the following:

- The municipality plumbing inspector will be contacting them to schedule the inspection of the treatment system, which is a requirement of the water treatment permit, at their convenience.
- The GAC treatment system will be included in Chemours Quarterly OM&M program (see Section 5) starting in the quarter following the GAC installation date and that the OM&M program includes quarterly sampling to monitor the operation and performance of the system.

5.0 Quarterly OM&M Program for GAC Treatment Systems

This section describes the steps that are followed by the Chemours representative in implementing the ongoing 2016 program for routine monitoring after a GAC treatment system is installed. As with the treatment implementation, in situations where there is a property owner and a resident, the property owner may request that the resident be the point of contact for the quarterly OM&M.

5.1 Scheduling Quarterly OM&M

Beginning with the first quarter after the treatment system is installed, the Chemours representative will call each resident to schedule quarterly sampling. If the resident does not answer the phone, the Chemours representative leaves a message asking the resident to call back at their convenience. If the resident does not return the Chemours representative's call, the Chemours representative leaves at least three messages encouraging the property owner to call back.

If the resident is still non-responsive to the Chemours representative's attempts to schedule sampling, a letter is sent to the resident (or the resident and property owner) and copied electronically to USEPA, NJDEP, the Salem County Health Department and the municipal clerks for the township in which the drinking-water well is located (see Appendix J for an example of the type of letter that will typically be sent). This letter notifies the resident (or the resident and property owner) that the quarterly OM&M is needed because sampling results provide operational data on the performances of the system and is the basis for operational and/or maintenance actions.

5.2 Performing the Quarterly OM&M

During the quarterly OM&M visits, the Chemours representative completes the following steps:

1. Ask the resident if they are experiencing any issues or pressure problems with the system.
2. Visually check to see if there are any leaks with the system.
3. Photo-document the current condition of system.
4. Check performance pressure gauges before BED1 and after BED2 and note pressure readings.
5. Check filter change out schedule. Each home has its own filter change out schedule and filters are changed accordingly. Every home has a sediment filter. Some homes have an iron filter.
6. Check the flow meter and confirm that it is working correctly.
7. Document the pressure gauge numbers, flow meter amount, time, sediment/iron filter conditions, and overall condition of the system in the field book at the time of visit.
 - 7a. If the system is bypassed upon arrival, flush system for 10 minutes from port three prior to collecting samples.
 - 7b. The sample from port three (after BED2) is collected first followed by the sample from port two (after BED1). During the third quarter of the year a

- sample from port one will be collected and called the prior to treatment or PT sample.
- 7c. Remove the bottle cap, place the bottle under the tap, and fill.
 - 7d. Recap the sample bottle.
 - 7e. Affix a sample label, unless the label was affixed by the laboratory.
 - 7f. Place the sample in a cooler of ice.
 - 7g. Complete the COC form.
8. Once per year, clean the exterior of the systems with a non PFAS soap and water.
 9. For systems residing in sheds, conduct a preliminary check for animal activity around the shed and check that the lock and key still work.
 10. Report any notable damage, leaks, or pressure issues to the Chemours representative managing the OM&M program and the plumbing subcontractor for follow-up, if needed.
 11. In the event a homeowner's system must be bypassed, immediately provide bottled water until the system is in operation again.

During the quarterly OM&M visits, the Chemours representative also evaluates the positions of the bypass valves. If the bypass valves are observed to be in the incorrect position, the Chemours representative will document the bypass condition, place the bypass valves in the correct position, and flush the GAC treatment system by running 10 gallons of water through the treatment system before collecting the water samples. The Chemours representative will also remind the resident of the proper position of the valves and that they should not be moved unless necessary.

The Chemours representative then collects treatment system samples from the sample ports after each carbon bed in the treatment system (BED1 and BED2). Sample collection procedures used are the same as for collecting an initial drinking-water sample from a tap (procedures are documented in the QAPP Rev 3. During the third quarter of each year, an additional sample is collected from the prior to treatment or PT sample port. If the PFOA, PFOS and PFNA results for the PT sample is less than the evaluation criteria, the procedures in Section 6.3 are followed. Samples are sent to the laboratory to be analyzed for PFOA, PFOS, and PFNA only (the three PFAS used as the evaluation criteria are described in Section 2.2). The laboratory and analytical methods used are described in Section 2.1.

5.3 Sample Analysis and Reporting of Results

The BED1 sample is analyzed each quarter. The BED2 sample remains on hold until the analytical results from BED1 are evaluated. The BED2 sample is analyzed only if the analytical results from BED1 are greater than the reporting limit of 0.002 µg/L. The untreated well water is only sampled and analyzed in the third quarter of each year. If hold-time exceedances occur in the laboratory, USEPA and NJDEP will be notified via email of the exceedance within one week of the laboratory's notification of the exceedance. After the BED1 (and possibly BED2) analytical results are finalized, a sampling results notification letter including both the analytical results (plus PT analytical results in the third quarter) is mailed to the resident or property owner. The results will be reported in units of µg/L (where 0.001 µg/L equals 1 ng/L) per N.J.A.C. 7:26E-1.6.

5.4 Carbon Bed Changeouts

A carbon bed changeout of BED1 and BED2 will take place if the BED2 concentrations for PFOA, PFOS, or PFNA are detected above the reporting limit of 0.002 µg/L in one quarterly sampling event. Alternatively, carbon beds will be replaced every five years if the change-out criteria are not reached within five years.

5.5 Quarterly Monitoring Reports

After all analytical data for each treatment system sampled during the quarter is finalized, a quarterly report letter is prepared for USEPA and NJDEP (as indicated in Table 1) within two weeks of data finalization. The report consists of two versions, one of which includes private personal information and one which does not. Private personal information (PPI), as defined by Chemours, includes names, addresses, telephone numbers and location IDs (a version of the street address used to identify the samples from a drinking-water well) and is information that Chemours believes it should not share publicly. The REG LOC ID version of the quarterly report will be publicly available in the future and GAC treatment system owners have been notified of their assigned REG LOC ID. For the PPI excluded version, each GAC treatment system has been assigned a unique regulatory location identification (REG LOC ID) number which is used instead of PPI. Both versions of this report are provided to USEPA and NJDEP although the version which contains PPI is identified as “Private Personal Information (PPI) – Do Not Release.”

The REG LOC ID version of the report includes the following information:

- Table 1 (hard copy and electronic copy), which provides information for all GAC treatment systems installed as a result of this surveying and sampling program, including GAC treatment systems that were installed during the quarter and will be incorporated into the OM&M program in the next quarter, as well as any that were later removed and the justification for removal, all listed by REG LOC ID
- Table 2 (hard copy and electronic copy), which provides all PFOA, PFOS and PFNA results to date for each residential GAC treatment system included in that quarter’s OM&M monitoring, all listed by REG LOC ID
- Table 3 (hard copy and electronic copy), which provides all PFOA, PFOS and PFNA results for each residential GAC treatment system that has been removed, listed by REG LOC ID
- Figure 1 (hard copy and electronic copy), which provides the location of each GAC treatment system installed and provides the location of each GAC treatment system that has been removed as of the end of the quarter, all listed by REG LOC ID.

The PPI version of the report includes the following information:

- Expanded Table 1 (hard copy), which provides information for all GAC treatment systems (including PPI) installed as a result of this surveying and sampling program, including GAC treatment systems that were installed during this quarter and will be incorporated into the OM&M program in the next quarter, as well as any that were later removed and the justification for removal

- Table 2 (hard copy), which provides all PFOA, PFOS and PFNA results to date for each residential GAC treatment system included in this quarter's OM&M, listed by location ID
- Table 3 (hard copy), which provides all PFOA, PFOS and PFNA results for each residential GAC treatment system that has been removed, listed by location ID
- Figure 1 (hard copy), which provides the location of each GAC treatment system installed as of the end of this quarter and provides the location of each GAC treatment system that has been removed, shown by location ID
- Analytical result letters sent to the well owners (hard copy)
- Letters sent to well owners who are non-responsive to the request to perform quarterly OM&M sampling (hard copy)
- Electronic copies (on CD) of the full data deliverables as per N.J.A.C. 7:26E-2.1 associated with this quarter's OM&M program.

5.6 GAC Treatment System Removal

The Qualification Re-Evaluation Program will be used to determine if removal of a GAC treatment system is appropriate, based on the changes in concentration of PFOA, PFOS, and PFNA in the annual PT samples over time (see Figure 4). This process is described further in Section 6.3.

Only the property owner can request GAC treatment system removal. Bottled water will be offered as an alternative long-term provision. The resident must sign a bottled water acceptance letter, which states that bottled water will be delivered, the GAC treatment system removed, and the GAC OM&M agreement becomes null and void. The address will be tracked per Section 3.2.

If the resident has installed a replacement drinking-water well¹², a Chemours representative will sample the replacement well when the original well is disconnected from the residence and the replacement well is connected. If the replacement well qualifies for treatment, the GAC treatment system is left in place and OM&M continues. If the replacement well is below the evaluation criteria, the GAC treatment system is removed, the GAC OM&M agreement becomes null and void, and the replacement well is included in the Qualification Re-Evaluation Program described in Section 6.

¹² If a resident installs a replacement drinking-water well, sampling will be offered as soon as the well is being used as a drinking-water source. Well permits are tracked in the publicly available tracking service, so in general, the Chemours representative is aware when replacement wells are going to be installed.

6.0 Drinking-Water Wells Not Qualified for Treatment and the Qualification Re-Evaluation Program

This section describes the Qualification Re-Evaluation Program, which is a new program that will be implemented December 1, 2020 with the approval of these SOPs. This program consists of seven years of annual and biennial monitoring events. All drinking-water wells from the current and previous investigation areas with results that do not exceed the evaluation criteria (all wells with less than 0.014 µg/L of PFOA, and less than 0.013 µg/L of PFOS and PFNA) are automatically included in this program. This includes wells that had results below the reporting limit of 0.002 µg/L. This program provides follow-up monitoring of the concentration of PFOA, PFOS, and PFNA in the drinking-water wells over time. The program includes a sequential series of two annual events and three biennial events. Drinking-water wells with concentrations of PFOA, PFOS, or PFNA that do not exceed the evaluation criteria after the completion of this series of monitoring events will be discussed with USEPA and NJDEP to determine if additional monitoring is warranted or not.

The Qualification Re-Evaluation Program consists of a series of sampling/resampling events offered to residents or property owners from previous, current or future investigation areas with drinking-water well results that do not exceed the evaluation criteria (all wells with less than 0.014 µg/L of PFOA and less than 0.013 µg/L of PFOS and PFNA, including wells that had results below the reporting limit of 0.002 µg/L). Each of these drinking-water wells will be sampled for PFOA, PFOS and PFNA following the sequential timeframe below:

- Annual #1 – Year 0
- Annual #2 – Year 1
- Biennial #1 – Year 3
- Biennial #2 – Year 5
- Biennial #3 – Year 7

Appendix K and Appendix L provide examples of the type of Qualification Re-Evaluation Program inclusion letters that will be sent to residents with wells included in this program. Figure 4 depicts a flow chart for the Qualification Re-Evaluation Program and the possible outcomes.

6.1 The Annual #1 Event

As indicated above, the Qualification Re-Evaluation Program will be implemented December 1, 2020, following approval of these SOPs. All residents and property owners with drinking-water wells sampled more than 1 year prior to the approval date of these SOPs (up to December 1, 2019) are being offered resampling because the original result could be over 3.5 years old (see Appendix K for an example of the type of letter that will typically be sent). This resampling result will be evaluated as the first sampling event (Annual #1) of the Qualification Re-Evaluation Program and only PFOA, PFOS and PFNA concentrations will be evaluated. Drinking-water wells sampled within 1 year of the approval date of this document (between December 1, 2019 and December 1, 2020) will be considered as the first sampling event (Annual #1) of the Qualification Re-Evaluation Program because these results are recent, approximately less than one year old (see Appendix L for an example of the type of letter that will typically be sent). The

first set of results for all new drinking-water wells sampled after December 1, 2020 will be used as the first sampling event (Annual #1) of the Qualification Re-Evaluation Program because these results will be the first time the drinking-water well has been sampled. Again, note that after the original sampling of a drinking-water well, only PFOA, PFOS, and PFNA are included in the analyte list for the sequential monitoring events.

If results for PFOA, PFOS or PFNA from any monitoring event in the Qualification Re-Evaluation Program are above the evaluation criteria, the drinking water well owner is qualified for an offer of treatment and the procedures starting in Section 3.5 Data Review and Qualification for an Offer of an Alternate Water Source are to be followed.

6.2 Sequential Monitoring Event Results and Paths Forward

The PFOA, PFOS and PFNA results from the Annual #1 monitoring event (and sequential monitoring events) are placed into one of three concentration categories, each of which has a unique path forward, as indicated below.

- **PFOA, PFOS, and PFNA Are All Less than the Reporting Limit:** If the results for PFOA, PFOS and PFNA for any sampling event are all below the reporting limit of 0.002 µg/L, then a resampling event will be offered one year later, regardless of which sequential sampling event generated the results. For example, if the results for Biennial #1 are all below the reporting limit of 0.002 µg/L, then a resampling event will be offered in the next year. If those results are all below the reporting limit of 0.002 µg/L, Chemours will evaluate the results for the drinking-water well and surrounding drinking-water well results and will determine if additional monitoring is warranted or not based on discussion with USEPA and NJDEP. If those results are at or above the reporting limit of 0.002 µg/L, then the Qualification Re-Evaluation Program sampling will resume at the next sequential sampling event. In the case of the example above, this would be Biennial #2.

If two sequential annual events have results for PFOA, PFOS, and PFNA below the reporting limit, Chemours will evaluate the results for the drinking-water well and surrounding drinking-water well results and will determine if additional monitoring is warranted or not based on discussion with USEPA and NJDEP.

- **PFOA, PFOS, and PFNA Are All Less than the Evaluation Criteria:** If the results for PFOA, PFOS, and PFNA for any sampling event are less than the evaluation criteria (PFOA less than 0.014 µg/L and PFOS and PFNA less than 0.013 µg/L), resampling will resume following the above listed sequential monitoring frequency.
- **PFOA, PFOS, or PFNA Are Equal to or Greater Than the Evaluation Criteria:** If the results for PFOA or PFOS or PFNA for any sampling event are equal to or above the evaluation criteria (PFOA equal to or greater than 0.014 µg/L or PFOS or PFNA equal to or greater than 0.013 µg/L), treatment will be offered (unless the well is no longer the potable source) and the procedures described in Section 4.0 will be implemented.

The path forward from each sequential monitoring event is a function of which of the above described concentration categories the results for PFOA, PFOS, or PFNA fall. Appendix M provides an example of the type of Qualification Re-Evaluation Program results letter that will be sent to residents with a drinking-water well qualified for treatment. Appendix N provides an example of the type of Qualification Re-Evaluation

Program results letter that will be sent to residents whose drinking-water well results did not qualify for treatment. The results for any drinking-water well still in the Qualification Re-Evaluation Program after the Biennial #3 event has taken place will be re-evaluated to determine if additional monitoring is warranted or not based on discussion with USEPA and NJDEP.

6.3 Inclusion of Drinking-Water Wells with GAC Treatment Installed in the Qualification Re-Evaluation Program

For drinking-water wells where a GAC treatment system has been installed, PT water is sampled on an annual basis during the third quarter of each year as part of the quarterly OM&M program (see Section 5.2). GAC-treated drinking-water wells will be included in the Qualification Re-Evaluation Program if the PT results for PFOA, PFOS, and PFNA for a sampling event are less than the evaluation criteria (see Figure 4). The GAC treatment system continues in the OM&M program and routine quarterly carbon bed sampling and analysis will occur. However, the PT sampling will switch to the Qualification Re-Evaluation Program sampling frequency beginning with the Annual #2 sampling event. Paths forward are a function of the concentration categories that the PT results fall in as indicated below.

- **PFOA, PFOS, and PFNA All Less than the Reporting Limit:** If the Annual #2 PT results for PFOA, PFOS, and PFNA for a sampling event are below the reporting limit (PFOA, PFOS and PFNA less than 0.002 µg/L), then a resampling event will be offered one year later. If two sequential annual PT events have results for PFOA, PFOS, and PFNA below the reporting limit (PFOA, PFOS, and PFNA less than 0.002 µg/L), then the results and surrounding drinking-water well results will be evaluated to see if GAC treatment system removal is warranted or not after discussion with USEPA and NJDEP.
- **PFOA, PFOS, and PFNA All Less than the Evaluation Criteria:** If the Annual #2 PT results for PFOA, PFOS, or PFNA for a sampling event are above the reporting limit (PFOA, PFOS or PFNA equal to or greater than 0.002 µg/L), but are below the evaluation criteria, then the Qualification Re-Evaluation Program sequential monitoring frequency is followed.

PT results with a concentration of PFOA, PFOS or PFNA that do not exceed the evaluation criteria after the completion of this sequential series of monitoring events through Biennial #3 will be discussed with USEPA and NJDEP to determine if additional monitoring is warranted.

- **PFOA, PFOS, or PFNA Equal to or Greater Than the Evaluation Criteria:** If the Annual #2 PT results or the results for any of the sequential sampling events show that the PFOA or PFOS or PFNA concentration for any sampling event are equal to or above the evaluation criteria (PFOA equal to or greater than 0.014 µg/L or PFOS or PFNA equal to or greater than 0.013 µg/L), then annual PT sampling as part of the quarterly OM&M program will resume.

If, after resuming the OM&M annual PT sampling, any future annual PT event shows concentrations less than the evaluation criteria, then the results will be considered as the Annual #1 sampling event, and the drinking-water well will be pulled back in the Qualification Re-Evaluation Program at Annual #2.

6.4 Reporting

All outreach efforts for residents and property owners for the Qualification Re-Evaluation Program will be tracked in an evergreen residential contacts spreadsheet¹³ that will be used to document responses to offer letters and sampling completed for each sampling event in the program. A separate evergreen spreadsheet will be used to track the PFOA, PFOS and PFNA results for each sequential sampling event in the Qualification Re-Evaluation Program¹⁴. These two evergreen spreadsheets will be provided to USEPA and NJDEP on an approximate monthly basis, prior to project status conference calls.

In addition, the Qualification Re-Evaluation Program analytical reports will be submitted semiannually on the last business day of May and November each year:

- The report will contain the analytical data, an evaluation of the analytical data, and schedule for future sampling.
- The results will be reported in units of µg/L (where 0.001 µg/L equals 1 ng/L) per N.J.A.C. 7:26E-1.6.
- Full data deliverables will be submitted to the NJDEP as per N.J.A.C. 7:26E-2.1.

¹³ The title of this evergreen spreadsheet will be Evergreen QREP Contacts XXXXXX, where XXXXXX is the month, day and year through which the spreadsheet has been updated (for example, 102919 for October 29, 2019).

¹⁴ The title of this evergreen spreadsheet will be Evergreen QREP Results XXXXXX, where XXXXXX is the month, day and year through which the spreadsheet has been updated (for example, 102919 for October 29, 2019).

7.0 References

AECOM. 2020. *Quality Assurance Project Plan for the Chemours 2016 PFAS Residential Drinking-Water Well Surveying and Sampling Program, Revision 2*. Chemours Chambers Works Complex, Deepwater, New Jersey. Original Date: May 2016; Revision 1: June 2016; Revision 2: July 2020.

Tables

Table 1
Distribution Lists for Ongoing 2016 Program Letters and Reports
Ongoing 2016 Residential Drinking-Water Well Surveying and PFAS Sampling Program
Chemours Chambers Works Complex
Deepwater, New Jersey

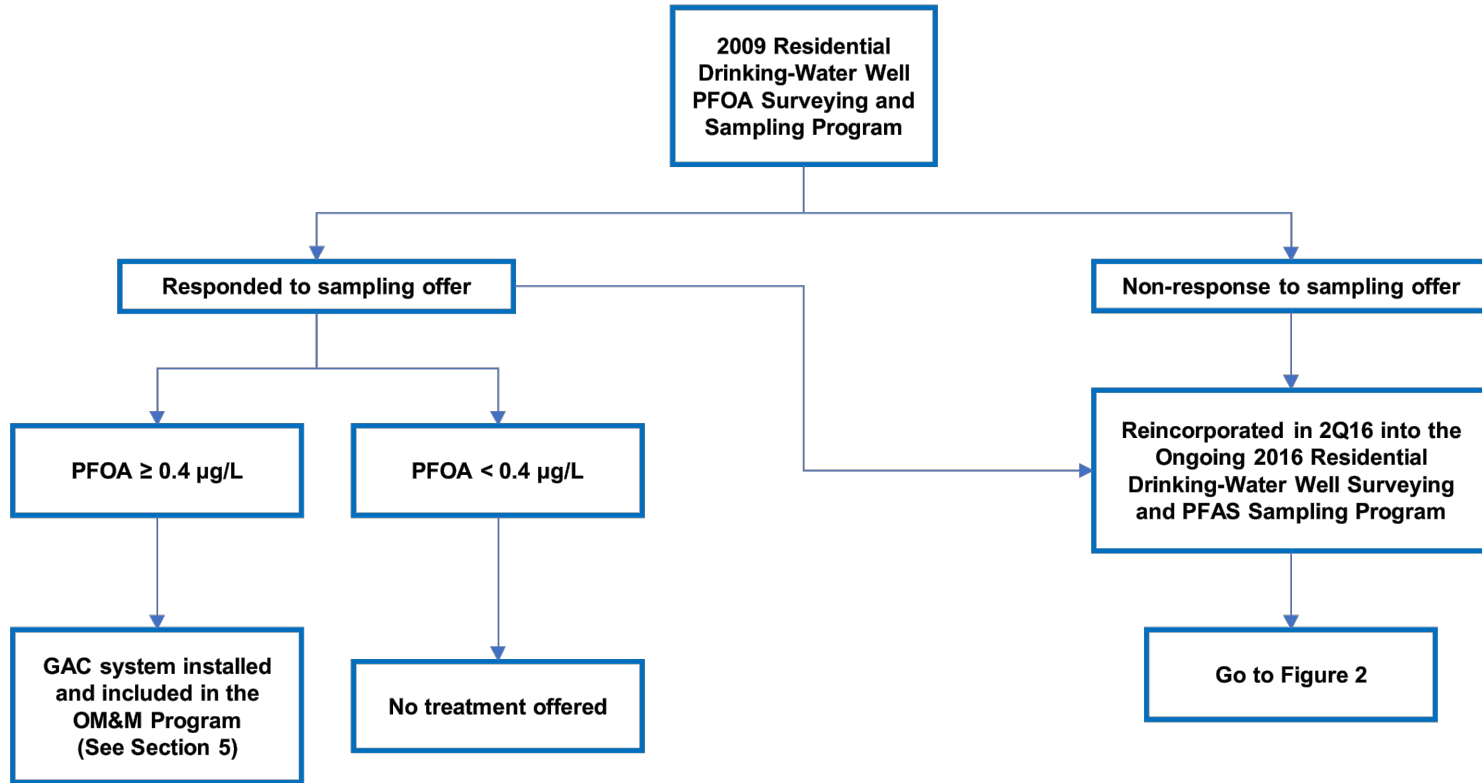
Letter or Document	Organization*	Name	Title	Contact Information	Format	
Ongoing 2016 Drinking-Water Well Surveying and PFAS Sampling Program Offer Letter; Qualification Re-Evaluation Program Incursion Letter	USEPA Region 2	Eleni Kavvadias	Project Manager	kavvadias.eleni@epa.gov	Electronic	
	USEPA Region 2	Pat Seppi	Community Involvement Coordinator	Seppi.Pat@epa.gov	Electronic	
	NJDEP	Helen Dudar	Case Manager	helen.dudar@dep.nj.gov	Electronic	
	NJDEP	Mark Herzberg	Community Relations Coordinator	Mark.Herzberg@dep.nj.gov	Electronic	
Ongoing 2016 Drinking-Water Well Surveying and PFAS Sampling Program Results Letter; Qualification Re-Evaluation Program Results Letter	USEPA Region 2	Eleni Kavvadias	Project Manager	kavvadias.eleni@epa.gov	Electronic	
	USEPA Region 2	Pat Seppi	Community Involvement Coordinator	Seppi.Pat@epa.gov	Electronic	
	NJDEP	Helen Dudar	Case Manager	helen.dudar@dep.nj.gov	Electronic	
	NJDEP	Mark Herzberg	Community Relations Coordinator	Mark.Herzberg@dep.nj.gov	Electronic	
	Carneys Point Municipal Clerk	June Proffitt	Municipal Clerk, Registrar of Vital Statistics	junep@carneyspointtp.org	Electronic	
	Pedricktown Municipal Clerk	Melinda Taylor	Municipal Clerk	clerk@oldmantownship.com	Electronic	
	Mannington Municipal Clerk	Esther Mitchell	Municipal Clerk/Administrator, Registrar of Vital Statistics	townshipclerk@manningtontwp.com	Electronic	
	Pennsville Municipal Clerk	Angela Foote	Municipal Clerk	pvclerk@pvtwp.com	Electronic	
	Pennsgrove Municipal Clerk	Sharon R. Williams	Borough Clerk, Registrar of Vital Statistics	swilliams@pennsgrove-nj.org	Electronic	
	Salem County Department of Health	June Sieber	Health and Human Services Director	June.Sieber@salemcountynj.gov	Electronic	
	Woodstown Township Municipal Clerk	Melissa Fackler	Deputy Clerk	woodstownclerk@comcast.net	Electronic	
	GAC Treatment System Quarterly OM&M Program Non-Response Letters	USEPA Region 2	Eleni Kavvadias	Project Manager	kavvadias.eleni@epa.gov	Electronic
NJDEP		Helen Dudar	Case Manager	helen.dudar@dep.nj.gov	Electronic	
Carneys Point Municipal Clerk		June Proffitt	Municipal Clerk, Registrar of Vital Statistics	junep@carneyspointtp.org	Electronic	
Pedricktown Municipal Clerk		Melinda Taylor	Municipal Clerk	clerk@oldmantownship.com	Electronic	
Mannington Municipal Clerk		Esther Mitchell	Municipal Clerk/Administrator, Registrar of Vital Statistics	townshipclerk@manningtontwp.com	Electronic	
Pennsville Municipal Clerk		Angela Foote	Municipal Clerk	pvclerk@pvtwp.com	Electronic	
Pennsgrove Municipal Clerk		Sharon R. Williams	Borough Clerk, Registrar of Vital Statistics	swilliams@pennsgrove-nj.org	Electronic	
Salem County Department of Health		June Sieber	Health and Human Services Director	June.Sieber@salemcountynj.gov	Electronic	
Woodstown Township Municipal Clerk		Melissa Fackler	Deputy Clerk	woodstownclerk@comcast.net	Electronic	
GAC Treatment System Quarterly OM&M Report; Ongoing 2016 Drinking-Water Well Surveying and PFAS Sampling Program update reports; Ongoing 2016 Drinking-Water Well Surveying and PFAS Sampling Program Semiannual Analytical Report Submissions; Qualification Re-Evaluation Program Semiannual Analytical Report Submissions		USEPA Region 2	Eleni Kavvadias	Project Manager	kavvadias.eleni@epa.gov	Electronic
		NJDEP	Helen Dudar	Case Manager	helen.dudar@dep.nj.gov	Electronic

* Municipal Clerks are copied if the letters are mailed to addresses within the township for which they are the municipal clerk, indicated as appropriate.

GAC = Granular Activated Carbon

OM&M = Operation, Maintenance, and Monitoring

Figures



DESIGNED BY: C. MIEDZUIS
DRAWN BY: D. LITTEL
DATA QUALITY CHKD: K. DAVIS
APPROVED BY:



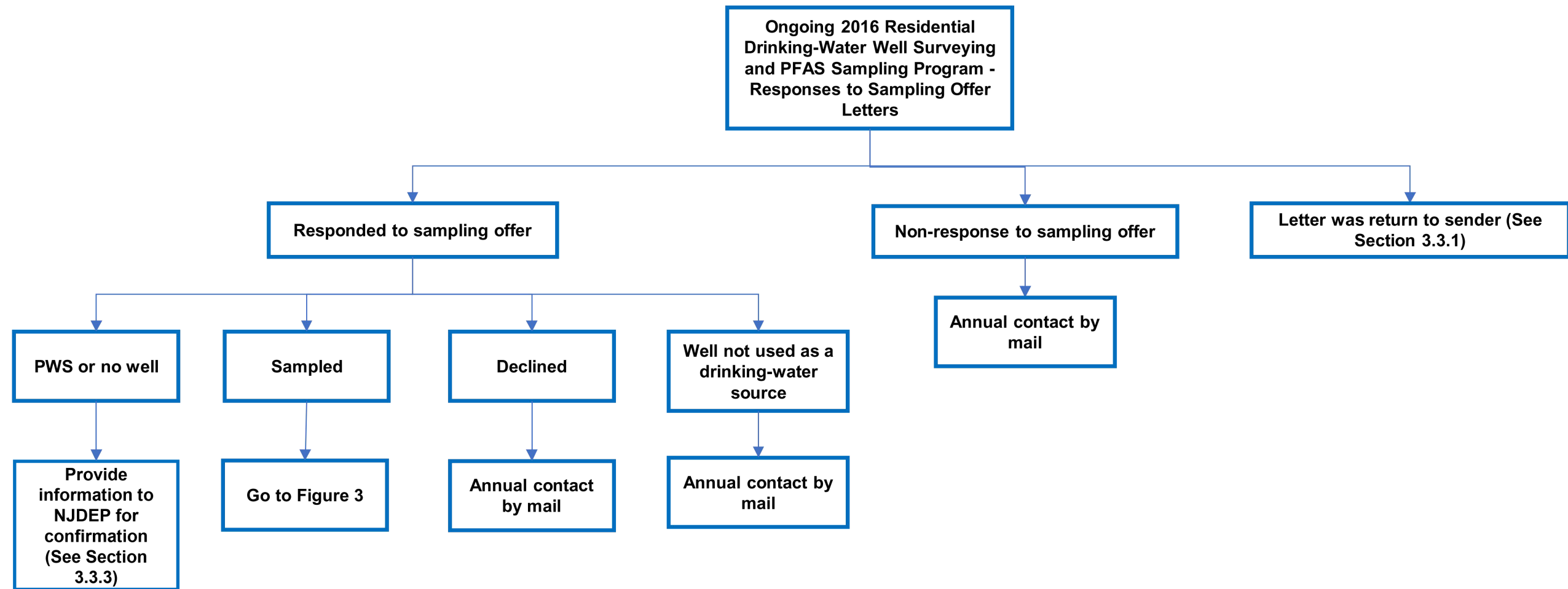
Sabre Building, Suite 300
4051 Ogletown Road
Newark, Delaware 19713
Phone: 302-781-5900

2009 RESIDENTIAL DRINKING-WATER
WELL PFOA SURVEYING AND SAMPLING
PROGRAM FLOW CHART

CHEMOURS CHAMBERS WORKS
DEEPWATER, NEW JERSEY

PROJECT NO. 60593797
DATE 11/25/2020
FIGURE No: 1

L:\DCS\Projects\DuPont\Chambers_Works\CAD\Project\60593797\Drawings\Figures 1 thru 4 Nov 2020.dwg, 11/10/2020 2:25 PM, Littel, David E (Newark), PDF995.ppt3, User:32767, 1'-0" = 1'-0"



DESIGNED BY:
C. MIEDZIUS
DRAWN BY:
D. LITTEL
DATA QUALITY CHKD:
K. DAVIS
APPROVED BY:



Sabre Building, Suite 300
4051 Oglethorpe Road
Newark, Delaware 19713
Phone: 302-781-5900

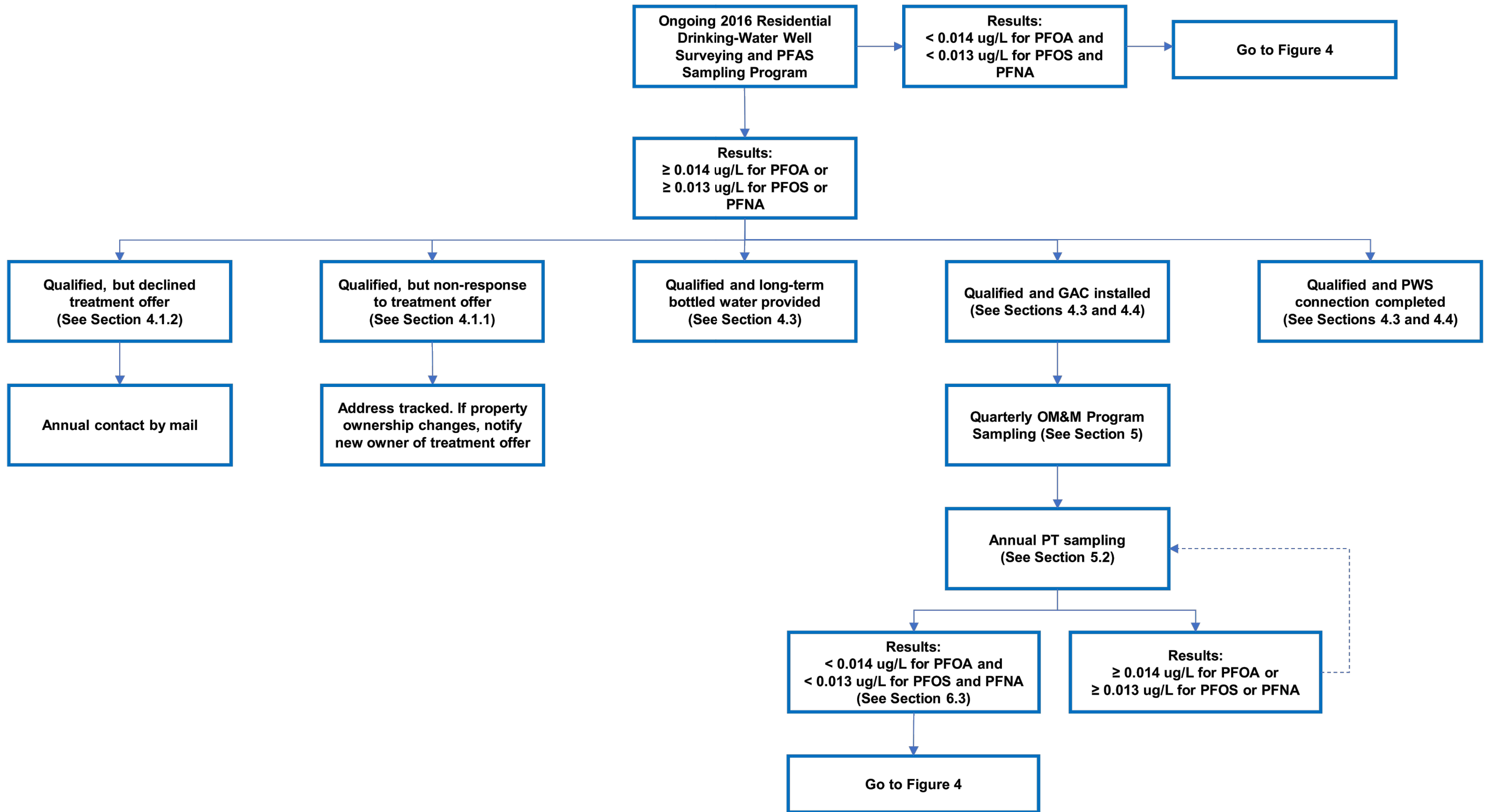
ONGOING 2016 RESIDENTIAL DRINKING-WATER
WELL SURVEYING AND PFAS SAMPLING
PROGRAM RESPONSES FLOW CHART

CHEMOURS CHAMBERS WORKS
DEEPWATER, NEW JERSEY

PROJECT NO.
60593797
DATE
11/25/2020
FIGURE No:

2

L:\DCS\Projects\Dupont\Chambers_Works\CAD\Project\60593797\Drawings\Figures 1 thru 4 Nov 2020.dwg, 11/10/2020 2:25 PM, Littell, David E (Newark), PDF995.ppt3, User:32767, 1'-0" = 1'-0"



DESIGNED BY:
C. MIEDZIUS
DRAWN BY:
D. LITTEL
DATA QUALITY CHKD:
K. DAVIS
APPROVED BY:



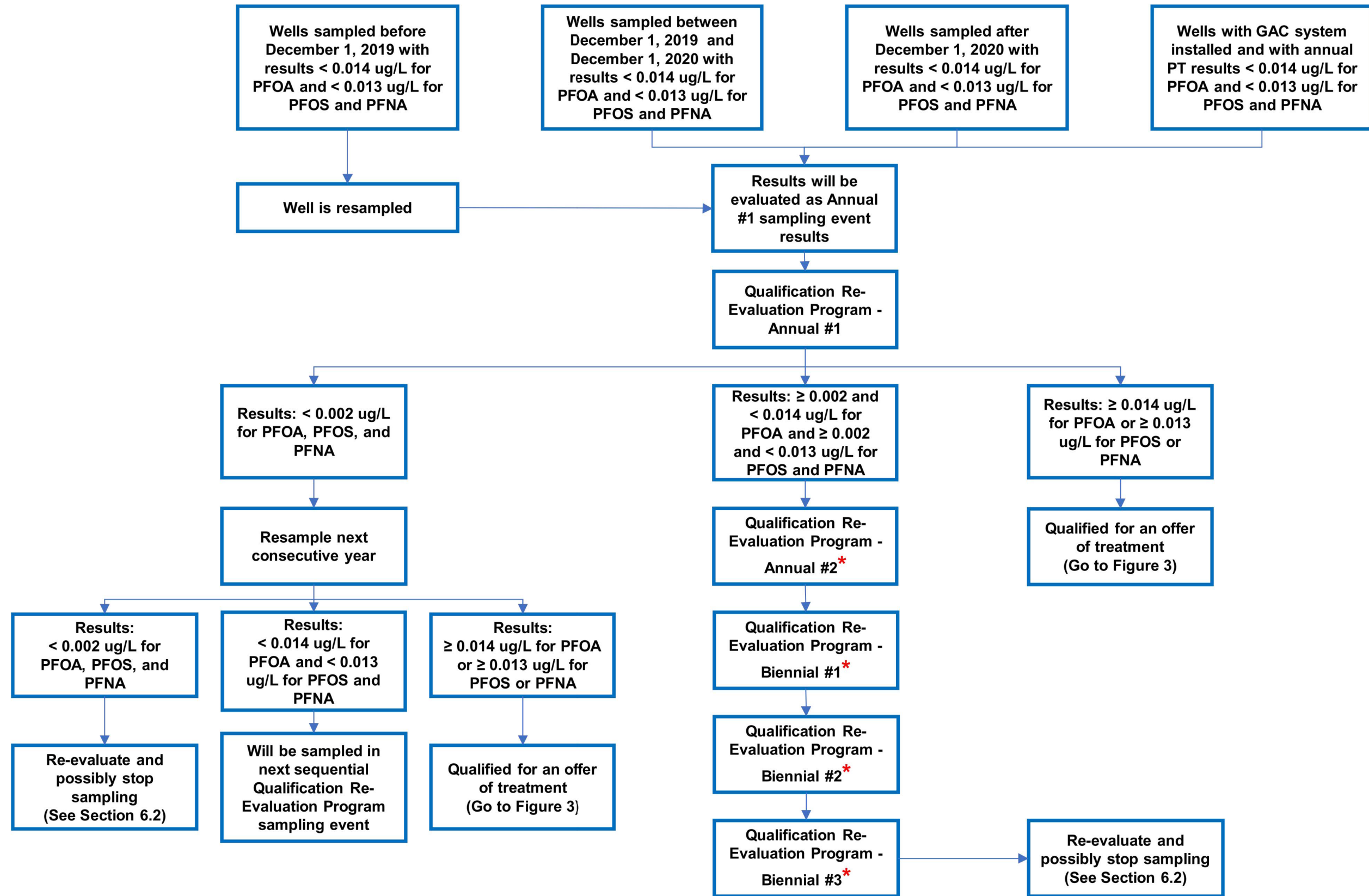
Sabre Building, Suite 300
4051 Oglethorpe Road
Newark, Delaware 19713
Phone: 302-781-5900

ONGOING 2016 RESIDENTIAL
DRINKING-WATER WELL SURVEYING AND
PFAS SAMPLING PROGRAM FLOW CHART

CHEMOURS CHAMBERS WORKS
DEEPWATER, NEW JERSEY

PROJECT NO.
60593797
DATE
11/25/2020

FIGURE No:
3



* The results for Annual #2 and the sequential sampling events will follow the same flow paths as Annual #1

DESIGNED BY:
C. MIEDZIUS
DRAWN BY:
D. LITTEL
DATA QUALITY CHKD:
K. DAVIS
APPROVED BY:

AECOM
Sabre Building, Suite 300
4051 Ogletown Road
Newark, Delaware 19713
Phone: 302-781-5900

QUALIFICATION RE-EVALUATION PROGRAM FLOW CHART
CHEMOURS CHAMBERS WORKS DEEPWATER, NEW JERSEY

PROJECT NO.
60593797
DATE
11/25/2020
FIGURE No:
4

Appendices

Appendix A

Example of a Surveying and Sampling Offer Letter



The Chemours Company
1007 Market Street
PO Box 2047
Wilmington, DE 19899

302-773-1000 t
chemours.com

Name (Resident/Owner) Post Card #: XXX
Address
City, State, Zip

Date

FIRST NOTICE

Drinking-Water Well Sampling Offer Chemours Chambers Work Facility, Deepwater, Salem County, New Jersey Ongoing 2016 Residential Drinking-Water Well Surveying and PFAS Sampling Program – Well Address

Please read the information below and use the enclosed self-addressed, stamped postcard to respond to Chemours. Thank you for your participation.

Commencing in 2009, E. I. du Pont de Nemours and Company (DuPont) worked in collaboration with the New Jersey Department of Environmental Protection (NJDEP) and the United States Environmental Protection Agency (USEPA) to conduct a Private Drinking-Water Well Surveying and Sampling Program for Perfluorooctanoic Acid (PFOA), one compound in a class of compounds called per- and polyfluoroalkyl substances (PFAS).

In 2016, The Chemours Company (Chemours), an independent publicly traded company through the spin-off of DuPont Performance Chemicals, expanded the Private Drinking-Water Well Survey and Sampling Program to include additional PFAS. The NJDEP has a Drinking Water Standard for the following three PFAS:

- PFOA is 0.014 micrograms per liter ($\mu\text{g/L}$);
- Perfluorooctanesulfonic acid (PFOS) is 0.013 $\mu\text{g/L}$; and,
- Perfluorononanoic acid (PFNA) is 0.013 $\mu\text{g/L}$.

The PFOA, PFOS and PFNA concentration within each drinking-water well are compared to the respective Drinking Water Standard.

Results for the current sampling activities conducted near your residence have shown the presence of PFAS in drinking water. Chemours is encouraging your participation in the sampling program and requests your permission to sample your drinking-water well at this time, if one is used as a drinking-water source.

If you accept the sampling offer, the water from your well will be analyzed for PFAS, including PFOA, PFOS and PFNA, and the results will be provided to you at no cost to you. Your participation in this sampling event is greatly appreciated. A Regulatory Location ID will be assigned and will be included in the drinking-water well results letter. We encourage you to schedule your drinking-water well for sampling as soon as possible by contacting Ms. Shannon Murphy of Chemours at **(856) 981-1510** or by filling out and returning the enclosed self-addressed, stamped postcard to Chemours. The sampling will be scheduled at your convenience and requires a technician to come to your house for less than 10 minutes to collect a small container of water. If your residence is connected

to a public water supply or you do not use your well for drinking water, or you decline the offer of sampling, please fill out the postcard and return it to Chemours.

For your information, additional facts regarding PFAS and perfluorinated compounds can be found at <https://www.epa.gov/pfas> or https://www.nj.gov/health/ceohs/documents/pfas_drinking%20water.pdf.

If you have any questions regarding this sampling program, please feel free to contact Mr. Mark Herzberg of NJDEP at **(609) 633-1369** or Ms. Pat Seppi of USEPA Region 2 at **(646) 369-0068**.

Sincerely,
The Chemours Company

Andrew S. Hartten
Principal Remediation Project Manager
Corporate Remediation Group

cc: Eleni Kavvadias, USEPA Region 2 (electronic)
Helen Dudar, NJDEP (electronic)

Appendix B

Response Postcard

CWK __

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



CWK __

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



Please check the appropriate box and mail this postcard:

- I have a public water connection.
- I do not use my well as my drinking-water source.
- I use my well as my drinking-water source:
- I will call you to schedule sampling.
 - Please call me at _____ to schedule sampling.
 - I decline the offer of sampling.

Thank you for your response.

CWK __

Please check the appropriate box and mail this postcard:

- I have a public water connection.
- I do not use my well as my drinking-water source.
- I use my well as my drinking-water source:
- I will call you to schedule sampling.
 - Please call me at _____ to schedule sampling.
 - I decline the offer of sampling.

Thank you for your response.

CWK __

Appendix C

Example of a Result Letter for a Resident with a Drinking-Water Well Qualified for Treatment



The Chemours Company
1007 Market Street
PO Box 2047
Wilmington, DE 19899

302-773-1000 t
chemours.com

Date

REG LOC ID - XXX

Name (Resident/Owner)

Street Address

City, State Zip

Chemours Ongoing 2016 Residential Drinking-Water Well Surveying and PFAS Sampling Program Results – “Sample ID”

Commencing in 2009, E. I. du Pont de Nemours and Company (DuPont) worked in collaboration with the New Jersey Department of Environmental Protection (NJDEP) and the United States Environmental Protection Agency (USEPA) to conduct a Private Drinking-Water Well Surveying and Sampling Program for Perfluorooctanoic Acid (PFOA), one compound in a class of compounds called per- and polyfluoroalkyl substances (PFAS).

In 2016, The Chemours Company (Chemours), an independent publicly traded company through the spin-off of DuPont Performance Chemicals, expanded the Private Drinking-Water Well Survey and Sampling Program to include additional PFAS. The NJDEP has a Drinking Water Standard for the following three PFAS:

- PFOA is 0.014 micrograms per liter ($\mu\text{g/L}$);
- Perfluorooctanesulfonic acid (PFOS) is 0.013 $\mu\text{g/L}$; and,
- Perfluorononanoic acid (PFNA) is 0.013 $\mu\text{g/L}$.

The PFOA, PFOS and PFNA concentration within each drinking-water well are compared to the respective Drinking Water Standard.

Attached please find the PFAS results for the drinking-water well sampling conducted recently by Chemours at your residence or property¹. The PFOA, PFOS, and PFNA results for your drinking-water well were compared to the above referenced current drinking water standards. The results for your well indicate that one or more of the above referenced standards have been met or exceeded and therefore, your drinking-water well will require treatment to meet established standards. A Chemours' representative will be contacting you shortly to discuss the form of treatment that will be offered to you. If you choose to decline this offer of treatment, please sign below and return this letter in the self-addressed stamped envelope.

For your information, additional facts regarding PFAS and perfluorinated compounds can be found at <https://www.epa.gov/pfas> or https://www.nj.gov/health/ceohs/documents/pfas_drinking%20water.pdf. If you have any

¹ In the future, Chemours may make results from this program as publicly available information. To ensure residential confidentiality, the drinking-water well and treatment system results, if applicable, will be identified by a Regulatory Location ID, instead of the sample ID, which is the drinking-water well address or an abbreviated version of the address. The Regulatory Location ID that has been assigned to your drinking-water well is located in the upper right corner of this letter.

questions regarding this sampling program, please feel free to contact Mr. Mark Herzberg of NJDEP at **(609) 633-1369** or Ms. Pat Seppi of USEPA Region 2 at **(646) 369-0068**.

Sincerely,
The Chemours Company

Andrew S. Hartten
Principal Remediation Project Manager
Corporate Remediation Group

cc: Eleni Kavvadias, USEPA Region 2 (electronic copy)
Helen Dudar, NJDEP (electronic copy)
June Sieber, Salem County Department of Health (electronic copy)
Name, Township Municipal Clerk (electronic copy)

**Chemours Ongoing 2016 Residential Drinking-Water Well Surveying and PFAS
Sampling Program Results – “Sample ID”**

I decline the offer of permanent treatment from Chemours.

(Owner's Signature and Date of Decline)

Appendix D

Example of a Result Letter for a Resident with a Drinking-Water Well Not Qualified for Treatment



The Chemours Company
1007 Market Street
PO Box 2047
Wilmington, DE 19899

302-773-1000 t
chemours.com

Date

REG LOC ID - XXX

Name (Resident/Owner)

Street Address

City, State Zip

Chemours Ongoing 2016 Residential Drinking-Water Well Surveying and PFAS Sampling Program Results – “Sample ID”

Commencing in 2009, E. I. du Pont de Nemours and Company (DuPont) worked in collaboration with the New Jersey Department of Environmental Protection (NJDEP) and the United States Environmental Protection Agency (USEPA) to conduct a Private Drinking-Water Well Surveying and Sampling Program for Perfluorooctanoic Acid (PFOA), one compound in a class of compounds called per- and polyfluoroalkyl substances (PFAS).

In 2016, The Chemours Company (Chemours), an independent publicly traded company through the spin-off of DuPont Performance Chemicals, expanded the Private Drinking-Water Well Survey and Sampling Program to include additional PFAS. The NJDEP has a Drinking Water Standard for the following three PFAS:

- PFOA is 0.014 micrograms per liter ($\mu\text{g/L}$);
- Perfluorooctanesulfonic acid (PFOS) is 0.013 $\mu\text{g/L}$; and,
- Perfluorononanoic acid (PFNA) is 0.013 $\mu\text{g/L}$.

The PFOA, PFOS and PFNA concentration within each drinking-water well are compared to the respective Drinking Water Standard.

Attached please find the PFAS results for the drinking-water well sampling conducted recently by Chemours at your residence or property¹. The PFOA, PFOS, and PFNA results for your drinking-water well were compared to the above referenced current drinking water standards. The results for your well were less than each of these criteria. Therefore, your drinking-water well is not qualified for treatment at this time. However, your drinking-water well will be included in a follow up monitoring program.

The Qualification Re-Evaluation Program provides follow-up monitoring of the concentration of PFOA, PFOS, and PFNA in your drinking-water well over time. This program consists of seven years of annual and biennial monitoring events including two annual events (annual #1 and annual #2), and three biennial events (biennial #1, biennial #2, and biennial #3) in a sequential series. The sampling results provided here will be used as the first annual event (annual #1) for the Qualification Re-evaluation Program. Resampling for the annual #2 will be offered to you in 2021 and Chemours will recontact you by letter when that resampling is offered to schedule it at your convenience. Please

¹ In the future, Chemours may make results from this program as publicly available information. To ensure residential confidentiality, the drinking-water well and treatment system results, if applicable, will be identified by a Regulatory Location ID, instead of the sample ID, which is the drinking-water well address or an abbreviated version of the address. The Regulatory Location ID that has been assigned to your drinking-water well is located in the upper right corner of this letter.

note that samples for this program will be analyzed for PFOA, PFOS, and PFNA and if at any point in the Qualification Re-evaluation Program the results for your drinking-water well are equal to or exceed the criteria listed above, your drinking-water well will be qualified for an offer of treatment.

For your information, additional facts regarding PFAS and perfluorinated compounds can be found at <https://www.epa.gov/pfas> or https://www.nj.gov/health/ceohs/documents/pfas_drinking%20water.pdf. If you have any questions regarding this sampling program, please feel free to contact Mr. Mark Herzberg of NJDEP at **(609) 633-1369** or Ms. Pat Seppi of USEPA Region 2 at **(646) 369-0068**.

Sincerely,
The Chemours Company

Andrew S. Hartten
Principal Remediation Project Manager
Corporate Remediation Group

cc: Eleni Kavvadias, USEPA Region 2 (electronic copy)
Helen Dudar, NJDEP (electronic copy)
June Sieber, Salem County Department of Health (electronic copy)
Name, Township Municipal Clerk (electronic copy)

Appendix E

Example of a Bottled Water Offer Letter



The Chemours Company
1007 Market Street
PO Box 2047
Wilmington, DE 19899

302-773-1000 t
chemours.com

Date REG LOC ID - XXX

Name (Resident/Owner)
Street Address
City, State Zip

Chemours Ongoing 2016 Residential Drinking-Water Well Surveying and PFAS Sampling Program – Permanent Bottled Water Offer – “Sample ID”

On **Month DD, YYYY**, your drinking-water well was sampled as part of The Chemours Company (Chemours) Ongoing 2016 Residential Drinking-Water Well Surveying and PFAS Sampling Program. Results mailed to you on **Month DD, YYYY** showed that your drinking-water well is qualified for treatment and a GAC system was offered for installation.

To accept this offer and to have bottled water provided at Chemours’ expense as an alternative treatment at this time, please sign and date below and return this letter in the enclosed self-addressed stamped envelope.

If you choose to decline this offer of treatment, please sign below and return this letter in the self-addressed stamped envelope.

Sincerely,
The Chemours Company

Andrew S. Hartten
Principal Remediation Project Manager
Corporate Remediation Group

cc: Eleni Kavvadias, USEPA Region 2 (electronic copy)
Helen Dudar, NJDEP (electronic copy)

Chemours Ongoing 2016 Residential Drinking-Water Well Surveying and PFAS Sampling Program Results – “Sample ID”

I **accept** the offer to have bottled water provided by Chemours as alternative treatment at this time.

(Owner’s Signature and Date)

**Chemours Ongoing 2016 Residential Drinking Water Well Surveying and PFAS
Sampling Program – “Sample ID”**

I decline the offer of treatment from Chemours.

(Owner’s Signature and Date of Decline)

Appendix F

New Jersey Department of Health Drinking-Water Fact Sheets: Per- and Polyfluoroalkyl Substances (PFAS) in Drinking Water



Drinking Water Facts:

Per- and Polyfluoroalkyl Substances (PFAS) in Drinking Water

*formerly titled PFCs in Drinking Water

- Per- and polyfluoroalkyl substances (PFAS) are a group of chemicals with many commercial and industrial uses.
- PFAS have been associated with a variety of adverse health effects in humans, but it has not been definitively established that PFAS cause these effects.
- PFOA, PFNA, and PFOS have drinking water regulations in New Jersey.

What are PFAS and perfluorinated chemicals (PFCs)?

PFAS are a group of manmade chemicals which include a smaller group of chemicals called PFCs. PFAS repel water and oil and are resistant to heat and chemical reactions. They therefore have important industrial and commercial uses. PFAS are used in production of some non-stick cookware, in waterproof and stain proof coatings, in “leak-proof” coatings on food packaging materials, in fire-fighting foams, and in other uses. PFAS can enter drinking water through industrial release to water, air, or soil; discharges from sewage treatment plants; land application of contaminated sludge; and use of fire-fighting foam.

PFCs are not broken down in the body. Four types of PFCs have been found in the blood (serum) of greater than 98% of the United States population. **These PFCs build up and stay in the human body for many years, and the amount goes down very slowly over time.**

- **PFOS** – perfluorooctane sulfonate
- **PFOA** – perfluorooctanoic acid
- **PFNA** – perfluorononanoic acid
- **PFHxS** – perfluorohexane sulfonate

How can I be exposed to PFAS?

Some PFAS can dissolve in water. Therefore, drinking water may be a major source of exposure to PFAS for people living in communities with contaminated drinking water. Other sources of PFAS exposure include food, food packaging, consumer products, house dust, indoor and outdoor air, and at workplaces where PFAS are made or used.

Exposure to PFAS in drinking water is primarily from ingestion. Exposure to PFAS through other household uses of water such as showering, bathing, laundry and dishwashing is not significant.

Are PFAS harmful to my health?

There is considerable information on the health effects of PFAS in humans and animals, and more information is continually becoming available. In experimental animals, some PFAS have been found to cause developmental, immune, neurobehavioral, liver, endocrine, and metabolic toxicity, generally at levels well above human exposures. Some studies of the general population, communities with drinking water exposures, and exposed workers suggest that PFAS increase the risk of a number of health effects. The most consistent human health effect findings for PFOA – the most well-studied of the PFAS – are increases in serum cholesterol, some liver enzymes, and uric acid levels. For PFOS, the most consistently found human health effects include increased serum cholesterol and uric acid levels. PFOA and PFOS have been associated with decreased antibody response following vaccination.

PFOA and PFOS caused tumors in rodents. In a community with substantial exposure to PFOA through drinking water, PFOA exposure was associated with higher incidence of kidney and testicular cancers.

How can PFAS affect children?

In experimental animals, some PFAS cause developmental effects. In humans, exposure to PFAS before birth or in early childhood may result in decreased birth weight, decreased immune responses, and hormonal effects later in life. More research is needed to understand the role of PFAS in developmental effects.

Infants and children consume more water per body weight than older individuals, so their exposures may be higher than adults in communities with PFAS in drinking water. They may also be more sensitive to the effects of PFAS.

Continued...

When PFAS are elevated in a drinking water supply, it is advisable to use bottled water to prepare infant formula for bottle-fed babies. Beverages for infants, such as juice made from concentrate, should also be prepared with bottled water. PFAS are present in breast milk. Based on the scientific understanding at this time, since the benefits of breast-feeding are well-established, infants should continue to be breast-fed. Pregnant, nursing, and women considering having children may choose to use home water filters or bottled water for drinking and cooking to reduce exposure to PFAS in your water. However, exposure to fetuses and nursing infants is influenced by past exposures and slow excretion of these substances from the body, so risk reduction will not be immediate.

What levels of PFAS in drinking water are safe?

In 2018, NJ became the first state to establish a drinking water standard for a PFAS chemical when it set a Maximum Contaminant Level (MCL) for **PFNA, at 13 parts per trillion (ppt) [ng/L]**. The New Jersey Department of Environmental Protection (NJDEP) has also established enforceable MCLs for **PFOA (14 ppt) and PFOS (13 ppt)**. These levels are based on current scientific information and are intended to protect for lifetime exposure.

USEPA has issued a lifetime drinking water Health Advisory for **PFOA and PFOS of 70 ppt** individually or when concentrations of PFOA and PFOS are combined. A Health Advisory is non-enforceable guidance that identifies the concentration of a contaminant in drinking water at which USEPA has concluded adverse health effects are not anticipated to occur. NJ's MCLs are more stringent.

How do I know if I have PFAS in my drinking water?

Large public water systems in the U.S. and a subset of smaller water systems were required to test for some PFAS as part of the USEPA Unregulated Contaminant Monitoring program. All of the water systems which tested for PFAS have reported their results in your annual Consumer Confidence Report (CCR) which may be available online or provided by your water provider. The only way to know whether your private well has PFAS is to have it tested. To find a laboratory certified to test, you can contact NJDEP Office of Quality Assurance at 609-292-3950 or at <https://www13.state.nj.us/DataMiner>

What should I do if I am concerned about PFAS in my drinking water?

PFAS are **not** removed from water by boiling. **If tap or well water is found to contain PFAS, people may choose to use home water filters or bottled water for drinking and cooking to reduce exposure to PFAS in their water.**

Granular activated carbon filters or reverse osmosis water treatment devices are technologies that can reduce the level of PFAS in drinking water. If a treatment is used, it is important to follow the manufacturer's guidelines for maintenance and operation. NSF International, an independent and accredited organization, certifies products proven effective for reducing PFOA and PFOS below the USEPA Health advisory level (70 ppt) (<http://info.nsf.org/Certified/DWTU/>).

What can blood testing for PFAS tell me?

PFAS can be measured in your blood serum but this is not a routine test. While a blood test may indicate whether you have been exposed to PFAS, results cannot be used to predict your health effects nor can they be linked to specific health problems. Also test results alone cannot be used to specifically identify sources of exposure, and there is no treatment to reduce levels of PFAS in blood. A national program has been measuring PFAS in blood among the U.S. population. This information can be used to determine if the levels of PFAS in your blood are higher than national background levels. For example, if your concentration is higher than the 95th percentile, this means your blood serum concentration is higher than the concentration found in 95% of the U.S. population.

Estimates of four most common PFAS measured in the U.S. general population, 2013-2014 (ng/ml [ppb])

PFAS	Geometric Mean	50 th Percentile	95 th Percentile
PFOS	4.99	5.20	18.42
PFOA	1.94	2.00	5.51
PFNA	0.67	0.64	1.99
PFHxS	1.35	1.33	5.54

Additional Resources:

<http://www.nj.gov/health/ceohs/environmental-occupational/drinking-water-public-health/>

Appendix G

Example of a Public Water Connection Agreement

Public Water Connection Agreement

Commencing in 2009, E. I. du Pont de Nemours and Company (DuPont) worked in collaboration with the New Jersey Department of Environmental Protection (NJDEP) and the United States Environmental Protection Agency (USEPA) to conduct a Private Drinking-Water Well Surveying and Sampling Program for Perfluorooctanoic Acid (PFOA), one compound in a class of compounds called per- and polyfluoroalkyl substances (PFAS).

In 2016, The Chemours Company (Chemours), an independent publicly traded company through the spin-off of DuPont Performance Chemicals, expanded the Private Drinking-Water Well Survey and Sampling Program to include additional PFAS. The NJDEP has a Drinking Water Standard for the following three PFAS:

- PFOA is 0.014 micrograms per liter ($\mu\text{g/L}$);
- Perfluorooctanesulfonic acid (PFOS) is 0.013 $\mu\text{g/L}$; and,
- Perfluorononanoic acid (PFNA) is 0.013 $\mu\text{g/L}$.

The PFOA, PFOS and PFNA concentration within each drinking-water well are compared to the respective Drinking Water Standard. At select locations that use drinking water wells that exceed these criteria, treatment offered is connection to a public water supply, as described below.

I (we), _____, the owner(s) (hereafter referred to collectively as Owner(s)) of the parcel of real estate and improvements located at _____ (hereafter referred to as the Property), consent to have Chemours and its designated contractor(s) enter on to the Property to connect the Property to the New Jersey American Water (NJAW). Owner consent is contingent upon the conditions provided below. Chemours' fulfillment of the obligations specified in this Agreement is also contingent upon the conditions below.

Condition 1. Chemours will provide at its costs all construction, labor, and material necessary to connect the Property to NJAW, including tapping fees and installation fees, and to abandon (seal) the well, to be protective of the homeowner and to reduce the risk of the well being reconnected for residential use. The owner will be responsible for payment of all costs once connection to NJAW is complete. Chemours will provide at its costs abandonment of the drinking-water well. Chemours will secure the services of a licensed water well contractor to abandon (seal) the existing well in accordance with NJDEP's Well Construction and Maintenance; Sealing of Abandoned Wells N.J.A.C. 7:9D and will provide copies of all NJDEP documentation to the well owner.

Condition 2. Chemours will provide at its cost all labor and materials necessary to restore any damage to the Property that results from Chemours' work

Appendix H

Photograph of a GAC Treatment System

Photograph of a GAC System



Appendix I

Example of a GAC Treatment System Installation, Operation, and Maintenance Agreement

Granular Activated Carbon Treatment System Installation, Operation, and Maintenance Agreement

New Jersey Department of Environmental Protection (NJDEP) has a Drinking Water Standard for the following three PFAS: perfluorooctanoic acid (PFOA) is 0.014 micrograms per liter ($\mu\text{g/L}$), perfluorooctanesulfonic acid (PFOS) is 0.013 $\mu\text{g/L}$, and perfluorononanoic acid (PFNA) is 0.013 $\mu\text{g/L}$. Based on the NJDEP criteria for PFNA, PFOA and PFOS, and the results for drinking water wells sampled near the Chemours Company (hereafter referred to as Chemours) Chambers Works in Deepwater, New Jersey, Chemours is now offering installation of granular activated carbon treatment (hereafter referred to as GAC Treatment System) if the measured concentration of PFOA, PFOS or PFNA in the drinking water is exceeds any of these criteria in those drinking water wells.

I (we), _____, the owner(s) (hereafter referred to as Owner(s)) of the parcel of real estate and improvements located at _____ (hereafter referred to as the Property), consent to have Chemours and its designated contractor(s) enter on to the Property to install a GAC Treatment System and connect it to the water supply line running from the Property's well to the primary living space on the Property. The GAC Treatment System is offered to the Owner(s) of the Property by Chemours. Owner(s)' consent is contingent upon the conditions provided below. Fulfillment by Chemours of its obligations specified in this Agreement is also contingent upon the conditions below.

Condition 1. Chemours will provide at its cost all construction, labor and materials necessary to install the GAC Treatment System and connect it to the water supply line running from the Property's source water to the primary living space on the Property.

Condition 2. Chemours will provide at its cost all labor and materials necessary to restore any damage to improvements on the Property that result from Chemours' work installing the GAC Treatment System and connecting it to the water supply line. Restoration shall consist of returning all improvements on the Property damaged by Chemours to as near as possible the condition existing on the date that installation and connection activities begin. The Owner(s) agree that in the case of grass that is damaged as part of the construction work, reseeding of the damaged area is acceptable.

Condition 3. Chemours will pay for all operation and maintenance of the GAC Treatment System, including timely replacement of the carbon filtering medium, based on quarterly sampling and analysis results. All operation, maintenance and filter replacement will be performed by Chemours' designated contractor(s). Chemours will provide for operation and maintenance of the GAC Treatment System until Chemours demonstrates to the satisfaction of EPA that the water system's source water prior to treatment contains PFOA, PFOS or PFNA below regulatory drinking water standards for four consecutive quarters and treatment can then be terminated. When Chemours' obligation to operate and maintain the GAC Treatment System ends, Chemours will pay all expenses to remove the GAC Treatment System entirely and return the Property to its condition before the equipment's installation.

Condition 4. Chemours will be responsible for personal injury or property damage caused by negligence in the performance of the work described in Conditions 1, 2, and 3 or by malfunction

of the GAC Treatment System. Chemours will not be responsible for any damage caused by the Owner(s) negligence.

Condition 5. Chemours and its contractor(s) may have access to the Property during normal business hours (Monday through Friday between 8:00 a.m. and 5:00 p.m.) to perform the installation, connection, sampling and any necessary restoration. When Chemours and its contractor(s) must enter the primary living space, it will seek with the Owner(s) a mutually agreeable time to do so.

Condition 6. Owner(s) grant Chemours the authority to obtain at its cost all necessary federal, state, and county permits for completion of the work described above on behalf of Owner(s) as required.

Condition 7. Chemours' designated contractor(s) will be licensed, bonded and insured.

Owner(s)' consent is provided on this date, _____ by:

_____ and _____
Owner(s)' Signature

_____ and _____
Owners(s)' Printed Name(s)

Agree by Chemours:

Andrew S. Hartten, Principal Remediation Project Manager, representing The Chemours Company
Printed Name, Title

Chemours Signature

Date

Appendix J

Example of a Letter Sent to a Resident who was Non- Responsive to the Quarterly OM&M Sampling



The Chemours Company
1007 Market Street
PO Box 2047
Wilmington, DE 19899

302-773-1000 t
chemours.com

Date

REG LOC ID - XXX

Name (Resident/Owner)

Street Address

City, State Zip

Chemours Ongoing 2016 Residential Drinking-Water Well Surveying and PFAS Sampling Program 2Q20 Residential GAC System Sampling – “Sample ID”

Dear Name (Resident/Owner):

Under the terms of your Granular Activated Carbon (GAC) Treatment System Installation, Operation and Maintenance Agreement, Chemours conducts required quarterly GAC system monitoring. Ms. Shannon Murphy of AECOM left several messages for you trying to schedule the 2Q20 GAC system monitoring. She did not receive any response from you and therefore, the 2Q20 GAC system monitoring was not conducted. The quarterly sampling is important because the sampling results provide operational data on the performance of the GAC system. This information is evaluated for proper operations of the GAC system and is the basis for operational and/or maintenance action as may be required for the GAC system.

Each quarter, Ms. Shannon Murphy will contact you three times to schedule the GAC system monitoring at your convenience. If you do not respond to her messages, it will be your responsibility to contact her at (856) 981-1510 to arrange for the GAC system monitoring.

Sincerely,
The Chemours Company

Andrew S. Hartten
Principal Remediation Project Manager
Corporate Remediation Group

cc: Eleni Kavvadias, USEPA Region 2 (electronic copy)
Helen Dudar, NJDEP (electronic copy)

Appendix K

Example of a Qualification Re-Evaluation Program Letter for Wells Sampled Prior to December 1, 2019



The Chemours Company
1007 Market Street
PO Box 2047
Wilmington, DE 19899

302-773-1000 t
chemours.com

Date

REG LOC ID - XXX

Name (Resident/Owner)

Street Address

City, State Zip

Chemours Ongoing 2016 Residential Drinking-Water Well Surveying and PFAS Sampling Program Results – “Sample ID”

Commencing in 2009, E. I. du Pont de Nemours and Company (DuPont) worked in collaboration with the New Jersey Department of Environmental Protection (NJDEP) and the United States Environmental Protection Agency (USEPA) to conduct a Private Drinking-Water Well Surveying and Sampling Program for Perfluorooctanoic Acid (PFOA), one compound in a class of compounds called per- and polyfluoroalkyl substances (PFAS).

In 2016, The Chemours Company (Chemours), an independent publicly traded company through the spin-off of DuPont Performance Chemicals, expanded the Private Drinking-Water Well Survey and Sampling Program to include additional PFAS. The NJDEP has a Drinking Water Standard for the following three PFAS:

- PFOA is 0.014 micrograms per liter ($\mu\text{g/L}$);
- Perfluorooctanesulfonic acid (PFOS) is 0.013 $\mu\text{g/L}$; and,
- Perfluorononanoic acid (PFNA) is 0.013 $\mu\text{g/L}$.

The PFOA, PFOS and PFNA concentration within each drinking-water well are compared to the respective Drinking Water Standard.

Previously, your drinking-water well was sampled as part of Chemours' surveying and sampling program¹. The results for your drinking-water well were compared to the criteria listed above. The results for your well were less than each of these criteria, which resulted in your drinking-water well not being qualified for treatment at the time of sampling. However, your drinking-water well will be included in a follow up monitoring program, the Qualification Re-Evaluation Program, which was implemented on December 1, 2020.

The Qualification Re-Evaluation Program provides follow-up monitoring of the concentration of PFOA, PFOS, and PFNA in your drinking-water well over time. This program consists of seven years of annual and biennial monitoring events including two annual events (annual #1 and annual #2), and three biennial events (biennial #1, biennial #2, and biennial #3) in a sequential series. Because your drinking-water well was sampled over one year ago, Chemours is now offering to resample your drinking-water well. If you accept this resampling offer, the resampling results will be used as the first annual event (annual #1) for the Qualification Re-evaluation Program. Please note that samples for this

¹ In the future, Chemours may make results from this program as publicly available information. To ensure residential confidentiality, the drinking-water well and treatment system results, if applicable, will be identified by a Regulatory Location ID, instead of the sample ID, which is the drinking-water well address or an abbreviated version of the address. The Regulatory Location ID that has been assigned to your drinking-water well is located in the upper right corner of this letter.

program will be analyzed for PFOA, PFOS, and PFNA and if at any point in the Qualification Re-evaluation Program the results for your drinking-water well are equal to or exceed the criteria listed above, your drinking-water well will be qualified for an offer of treatment.

For your information, additional facts regarding PFAS and perfluorinated compounds can be found at <https://www.epa.gov/pfas> or https://www.nj.gov/health/ceohs/documents/pfas_drinking%20water.pdf. If you have any questions regarding this sampling program, please feel free to contact Mr. Mark Herzberg of NJDEP at **(609) 633-1369** or Ms. Pat Seppi of USEPA Region 2 at **(646) 369-0068**.

Sincerely,
The Chemours Company

Andrew S. Hartten
Principal Remediation Project Manager
Corporate Remediation Group

cc: Eleni Kavvadias, USEPA Region 2 (electronic copy)
Helen Dudar, NJDEP (electronic copy)
June Sieber, Salem County Department of Health (electronic copy)
Name, Township Municipal Clerk (electronic copy)

Appendix L

Example of a Qualification Re-Evaluation Program Letter for Wells Sampled Between December 1, 2019 and December 1, 2020



The Chemours Company
1007 Market Street
PO Box 2047
Wilmington, DE 19899

302-773-1000 t
chemours.com

Date

REG LOC ID - XXX

Name (Resident/Owner)

Street Address

City, State Zip

Chemours Ongoing 2016 Residential Drinking-Water Well Surveying and PFAS Sampling Program Results – “Sample ID”

Commencing in 2009, E. I. du Pont de Nemours and Company (DuPont) worked in collaboration with the New Jersey Department of Environmental Protection (NJDEP) and the United States Environmental Protection Agency (USEPA) to conduct a Private Drinking-Water Well Surveying and Sampling Program for Perfluorooctanoic Acid (PFOA), one compound in a class of compounds called per- and polyfluoroalkyl substances (PFAS).

In 2016, The Chemours Company (Chemours), an independent publicly traded company through the spin-off of DuPont Performance Chemicals, expanded the Private Drinking-Water Well Survey and Sampling Program to include additional PFAS. The NJDEP has a Drinking Water Standard for the following three PFAS:

- PFOA is 0.014 micrograms per liter ($\mu\text{g/L}$);
- Perfluorooctanesulfonic acid (PFOS) is 0.013 $\mu\text{g/L}$; and,
- Perfluorononanoic acid (PFNA) is 0.013 $\mu\text{g/L}$.

The PFOA, PFOS and PFNA concentration within each drinking-water well are compared to the respective Drinking Water Standard.

Previously, your drinking-water well was sampled as part of Chemours' surveying and sampling program¹. The results for your drinking-water well were compared to the criteria listed above. The results for your well were less than each of these criteria, which resulted in your drinking-water well not being qualified for treatment at the time of sampling. However, your drinking-water well will be included in a follow up monitoring program, the Qualification Re-Evaluation Program, which was implemented on December 1, 2020.

The Qualification Re-Evaluation Program provides follow-up monitoring of the concentration of PFOA, PFOS, and PFNA in your drinking-water well over time. This program consists of seven years of annual and biennial monitoring events including two annual events (annual #1 and annual #2), and three biennial events (biennial #1, biennial #2, and biennial #3) in a sequential series. Because your drinking-water well was sampled less than a year ago, these sampling results provided here will be used as the first annual event (annual #1) for the Qualification Re-evaluation Program. Please note that samples for this program will be analyzed for PFOA, PFOS, and PFNA and if at any point in the

¹ In the future, Chemours may make results from this program as publicly available information. To ensure residential confidentiality, the drinking-water well and treatment system results, if applicable, will be identified by a Regulatory Location ID, instead of the sample ID, which is the drinking-water well address or an abbreviated version of the address. The Regulatory Location ID that has been assigned to your drinking-water well is located in the upper right corner of this letter.

Qualification Re-evaluation Program the results for your drinking-water well are equal to or exceed the criteria listed above, your drinking-water well will be qualified for an offer of treatment.

For your information, additional facts regarding PFAS and perfluorinated compounds can be found at <https://www.epa.gov/pfas> or https://www.nj.gov/health/ceohs/documents/pfas_drinking%20water.pdf. If you have any questions regarding this sampling program, please feel free to contact Mr. Mark Herzberg of NJDEP at **(609) 633-1369** or Ms. Pat Seppi of USEPA Region 2 at **(646) 369-0068**.

Sincerely,
The Chemours Company

Andrew S. Hartten
Principal Remediation Project Manager
Corporate Remediation Group

cc: Eleni Kavvadias, USEPA Region 2 (electronic copy)
Helen Dudar, NJDEP (electronic copy)
June Sieber, Salem County Department of Health (electronic copy)
Name, Township Municipal Clerk (electronic copy)

Appendix M

Example of a Qualification Re-Evaluation Program Result Letter for Wells Qualified for Treatment



The Chemours Company
1007 Market Street
PO Box 2047
Wilmington, DE 19899

302-773-1000 t
chemours.com

Date

REG LOC ID - XXX

Name (Resident/Owner)

Street Address

City, State Zip

Chemours Qualification Re-Evaluation Program Results – “Sample ID”

Commencing in 2009, E. I. du Pont de Nemours and Company (DuPont) worked in collaboration with the New Jersey Department of Environmental Protection (NJDEP) and the United States Environmental Protection Agency (USEPA) to conduct a Private Drinking-Water Well Surveying and Sampling Program for Perfluorooctanoic Acid (PFOA), one compound in a class of compounds called per- and polyfluoroalkyl substances (PFAS).

In 2016, The Chemours Company (Chemours), an independent publicly traded company through the spin-off of DuPont Performance Chemicals, expanded the Private Drinking-Water Well Survey and Sampling Program to include additional PFAS. The NJDEP has a Drinking Water Standard for the following three PFAS:

- PFOA is 0.014 micrograms per liter ($\mu\text{g/L}$);
- Perfluorooctanesulfonic acid (PFOS) is 0.013 $\mu\text{g/L}$; and,
- Perfluorononanoic acid (PFNA) is 0.013 $\mu\text{g/L}$.

The PFOA, PFOS and PFNA concentrations within each drinking-water well are compared to the respective Drinking Water Standard.

Previously, your drinking-water well was sampled as part of Chemours' surveying and sampling program¹. The results for your drinking-water well were compared to the criteria listed above. The results for your well were less than each of these criteria, which resulted in your drinking-water well not being qualified for treatment at the time of sampling. However, your drinking-water well is included in a follow up monitoring program, the Qualification Re-Evaluation Program.

The Qualification Re-Evaluation Program provides follow-up monitoring of the concentration of PFOA, PFOS, and PFNA in your drinking-water well over time. This program consists of seven years of annual and biennial monitoring events including two annual events (annual #1 and annual #2), and three biennial events (biennial #1, biennial #2, and biennial #3) in a sequential series.

Your drinking-water well was sampled recently as part of this program. The PFOA, PFOS, and PFNA results for your drinking-water well were compared to the above referenced current drinking water standards. The results for your well indicate that one or more of the above referenced standards have been met or exceeded; therefore, your drinking-water

¹ In the future, Chemours may make results from this program as publicly available information. To ensure residential confidentiality, the drinking-water well and treatment system results, if applicable, will be identified by a Regulatory Location ID, instead of the sample ID, which is the drinking-water well address or an abbreviated version of the address. The Regulatory Location ID that has been assigned to your drinking-water well is located in the upper right corner of this letter.

well will require treatment to meet established standards. A Chemours' representative will be contacting you shortly to discuss the form of treatment that will be offered to you. If you choose to decline this offer of treatment, please sign below and return this letter in the self-addressed stamped envelope.

For your information, additional facts regarding PFAS and perfluorinated compounds can be found at <https://www.epa.gov/pfas> or https://www.nj.gov/health/ceohs/documents/pfas_drinking%20water.pdf. If you have any questions regarding this sampling program, please feel free to contact Mr. Mark Herzberg of NJDEP at **(609) 633-1369** or Ms. Pat Seppi of USEPA Region 2 at **(646) 369-0068**.

Sincerely,
The Chemours Company

Andrew S. Hartten
Principal Remediation Project Manager
Corporate Remediation Group

cc: Eleni Kavvadias, USEPA Region 2 (electronic copy)
Helen Dudar, NJDEP (electronic copy)
June Sieber, Salem County Department of Health (electronic copy)
Name, Township Municipal Clerk (electronic copy)

Chemours Qualification Re-Evaluation Program Results – “Sample ID”

I decline the offer of permanent treatment from Chemours.

(Owner's Signature and Date of Decline)

Appendix N

Example of a Qualification Re-Evaluation Program Result Letter for Wells Not Qualified for Treatment



The Chemours Company
1007 Market Street
PO Box 2047
Wilmington, DE 19899

302-773-1000 t
chemours.com

Date

REG LOC ID - XXX

Name (Resident/Owner)

Street Address

City, State Zip

Chemours Qualification Re-Evaluation Program Results – “Sample ID”

Commencing in 2009, E. I. du Pont de Nemours and Company (DuPont) worked in collaboration with the New Jersey Department of Environmental Protection (NJDEP) and the United States Environmental Protection Agency (USEPA) to conduct a Private Drinking-Water Well Surveying and Sampling Program for Perfluorooctanoic Acid (PFOA), one compound in a class of compounds called per- and polyfluoroalkyl substances (PFAS).

In 2016, The Chemours Company (Chemours), an independent publicly traded company through the spin-off of DuPont Performance Chemicals, expanded the Private Drinking-Water Well Survey and Sampling Program to include additional PFAS. The NJDEP has a Drinking Water Standard for the following three PFAS:

- PFOA is 0.014 micrograms per liter ($\mu\text{g/L}$);
- Perfluorooctanesulfonic acid (PFOS) is 0.013 $\mu\text{g/L}$; and,
- Perfluorononanoic acid (PFNA) is 0.013 $\mu\text{g/L}$.

The PFOA, PFOS and PFNA concentrations within each drinking-water well are compared to the respective Drinking Water Standard.

Previously, your drinking-water well was sampled as part of Chemours' surveying and sampling program¹. The results for your drinking-water well were compared to the criteria listed above. The results for your well were less than each of these criteria, which resulted in your drinking-water well not being qualified for treatment at the time of sampling. However, your drinking-water well is included in a follow up monitoring program, the Qualification Re-Evaluation Program.

The Qualification Re-Evaluation Program provides follow-up monitoring of the concentration of PFOA, PFOS, and PFNA in your drinking-water well over time. This program consists of seven years of annual and biennial monitoring events including two annual events (annual #1 and annual #2), and three biennial events (biennial #1, biennial #2, and biennial #3) in a sequential series.

Your drinking-water well was sampled recently as part of this program. The PFOA, PFOS, and PFNA results for your drinking-water well were compared to the above referenced current drinking water standards. The results for your well were less than each of these criteria. Therefore, your drinking-water well is not qualified for treatment at this time. A

¹ In the future, Chemours may make results from this program as publicly available information. To ensure residential confidentiality, the drinking-water well and treatment system results, if applicable, will be identified by a Regulatory Location ID, instead of the sample ID, which is the drinking-water well address or an abbreviated version of the address. The Regulatory Location ID that has been assigned to your drinking-water well is located in the upper right corner of this letter.

Chemours representative will contact you in the future to schedule the next sequential sampling event in the Qualification Re-Evaluation Program.

For your information, additional facts regarding PFAS and perfluorinated compounds can be found at <https://www.epa.gov/pfas> or https://www.nj.gov/health/ceohs/documents/pfas_drinking%20water.pdf. If you have any questions regarding this sampling program, please feel free to contact Mr. Mark Herzberg of NJDEP at **(609) 633-1369** or Ms. Pat Seppi of USEPA Region 2 at **(646) 369-0068**.

Sincerely,
The Chemours Company

Andrew S. Hartten
Principal Remediation Project Manager
Corporate Remediation Group

cc: Eleni Kavvadias, USEPA Region 2 (electronic copy)
Helen Dudar, NJDEP (electronic copy)
June Sieber, Salem County Department of Health (electronic copy)
Name, Township Municipal Clerk (electronic copy)