



September 27, 2022

Jennifer Blount
1214 49th Ave
Camanche, IA 52730

Dear Jennifer Blount:

We now have the results of the sampling of your well for select per- and polyfluoroalkyl substances (PFAS) as part of 3M Company's drinking water sampling program. The analytical results of the initial sampling are included in the enclosed laboratory report. The attached **Table 1** summarizes the results of the sample collected from your well at 1214 49th Ave, Camanche, IA on 8/23/2022. PFAS analytes were detected above the laboratory reporting limits in the water sample collected from your well.

Additional Sampling

As we stated in our earlier letters, with your permission, we plan to collect an additional sample from your well to confirm the initial results. This sampling event would be conducted at no cost to you. 3M's contractor, Barr Engineering Co. (Barr), will contact you to schedule additional sampling. As a reminder, all sample results would be communicated to you, 3M, U.S. EPA, and your State's environmental and/or public health agencies.

3M Supported Water Treatment System

Also, as we stated in our last letter (dated September 13, 2022), 3M wants to minimize the disruption and any confusion sampling results could cause for the communities where we live and work. To help address this concern, 3M is offering a treatment system to residents near the Cordova facility who get their drinking water from an underground well. Regardless of the results of the sampling of your well, 3M is offering to install in your home, at no cost to you, a water treatment system that can remove a wide range of PFAS.

These systems use granular activated carbon to remove PFAS from well water as it enters the home or at the point the water is used. There are two systems being offered that are shown, as installed, in the attachment to this letter. One system serves the entire home and the other serves individual taps within the home. Certain components of the system must be replaced or serviced periodically to ensure the effectiveness of the system. After installation of the water treatment system 3M will provide continuing maintenance at 3M's expense. The maintenance period for the systems will be described in the installation agreement. You will have a chance to review this and ask questions before installation.

You may accept this offer now or wait. As we stated in our last letter, the offer will remain open for one year after the date of that letter (September 13, 2022). Whether and when to have a system installed is your choice.

If you decide to accept the offer, or just want more information about the offered treatment systems, please contact Barr via telephone at 1-833-227-1705 or email at Cordova3M@barr.com. Barr personnel will explain the process, explain the differences between the two systems being offered, and schedule any additional sampling required and an installation date. Installation generally takes about four hours or less, though site conditions could increase the time required.

Additional Information About PFAS

We also want to provide you with a way to find more information about PFAS. Although neither the United States Environmental Protection Agency (U.S. EPA) nor the States of Illinois or Iowa have developed enforceable drinking water standards for PFAS in drinking water, they do publish health advisories and guidance materials. The U.S. Agency for Toxic Substances and Disease Registry (ATSDR),¹ also provides guidance on these issues. The guidance can be found at the following websites:

- U.S. EPA websites: General Information - <https://www.epa.gov/pfas>; Frequently asked Questions & Answers - <https://www.epa.gov/sdwa/questions-and-answers-drinking-water-health-advisories-pfoa-pfos-genx-chemicals-and-pfbs#q6>
- Agency for Toxic Substances and Disease Registry website: <https://www.atsdr.cdc.gov/pfas/resources/mrl-pfas.html>
- Illinois Environmental Protection Agency website: <https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/default.aspx>
- Iowa Department of Natural Resources website: <https://www.iowadnr.gov/idnr/Environmental-Protection/PFAS>

To aid you in interpreting the sampling results for your water, **Table 2** summarizes current health advisories published by U.S. EPA, ATSDR, and Illinois EPA. The Iowa Department of Health has not adopted independent guidance levels for PFAS.

Lastly, thank you once again for your willingness to cooperate in this sampling activity. We are continuing our long-term monitoring program and propose to continue sampling wells like yours at least annually until further notice. We will continue to coordinate future sampling activities with you and will report the results for your well to you as we receive them.

Sincerely,



David Andrews
3M Cordova Plant Manager

¹ ATSDR is a federal public health agency of the U.S. Department of Health and Human Services.

Table 1
Summary of PFAS Drinking Water Analytical Results
1214 49th Ave, Camanche, IA

Parameter	Location Sample Date	7063-A 8/23/2022
Per- and Polyfluoroalkyl Substances (ng/l)		
Perfluoropentanoic acid (PFPeA)		52
Perfluorohexanoic acid (PFHxA)		8.3
Perfluoroheptanoic acid (PFHpA)		< 1.8 (ND)
Perfluorooctanoic acid (PFOA)		5.3
Perfluorononanoic acid (PFNA)		< 1.8 (ND)
Perfluorodecanoic acid (PFDA)		< 1.8 (ND)
Perfluoroundecanoic acid (PFUnA)		< 1.8 (ND)
Perfluorododecanoic acid (PFDoA)		< 1.8 (ND)
Perfluorotridecanoic acid (PFTrDA)		< 1.8 (ND)
Perfluorotetradecanoic acid (PFTeA)		< 1.8 (ND)
Perfluorobutanesulfonic acid (PFBS)		35
Perfluoropentanesulfonic acid (PFPeS)		< 1.8 (ND)
Perfluorohexanesulfonic acid (PFHxS)		3.4
Perfluoroheptanesulfonic acid (PFHpS)		< 1.8 (ND)
Perfluorooctanesulfonic acid (PFOS)		5.2
n-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		< 4.5 (ND)
n-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		< 4.5 (ND)
4:2 Fluorotelomer sulfonic acid (4:2 FTS)		< 1.8 (ND)
6:2 Fluorotelomer sulfonic acid (6:2 FTS)		< 4.5 (ND)
8:2 Fluorotelomer sulfonic acid (8:2 FTS)		< 1.8 (ND)
9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)		< 1.8 (ND)
2-(Heptafluoropropoxy)tetrafluoropropionic acid (HFPO-DA Gen X)		7.3
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)		< 1.8 (ND)
4,8-dioxa-3H-perfluorononanoic acid (ADONA)		< 1.8 (ND)
Nonafluoro-3, 6-dioxaheptanoic acid (NFDHA)		< 1.8 (ND)
Perfluoro-4-methoxybutanoic acid (PFMBA)		17
Perfluoro-3-methoxypropanoic acid (PFMPA)		15
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)		< 1.8 (ND)
Trifluoromethanesulfonimide (TFSI)		< 1.8 (ND)
Perfluorobutanoic acid (PFBA)		1100
Perfluoropropionic acid (PFPrA)		2000

Notes:

1. All values are expressed in nanograms per liter (ng/l), also referred to as parts per trillion (ppt).
2. ND - not detected. The analyte was not detected above the laboratory reporting limit (RL), which is the lowest concentration the analyte can be reliably measured. Another way of expressing this result is < RL (ND) (e.g. PFOA: < 2.0 (ND) with 2.0 ng/l being the reporting limit).

Table 2
Summary of Agency Advisory Levels

Constituent	U.S. EPA LHA ²	IL EPA Advisory ³	ATSDR MRL ⁴
PFOA	0.004 ppt	2 ppt	78 ppt (adult) and 21 ppt (child)
PFBS	2,000 ppt	2,100 ppt	No MRL
PFHxS	No Advisory Level	140 ppt	517 ppt (adult) and 140 ppt (child)
PFOS	0.02 ppt	14 ppt	52 ppt (adult) and 14 ppt (child)
PFNA	No Advisory Level	21 ppt	78 ppt (adult) and 21 ppt (child)
GenX (HFPO-DA)	10 ppt	21 ppt	No MRL
PFHxA	No Advisory Level	560,000 ppt	No MRL
Other PFAS	No Advisory Level	No Advisory Level	No MRL

Notes:

1. All values are expressed in parts per trillion (ppt). Parts per trillion can also be expressed as ng/L or nanograms per liter.
2. The U.S. EPA LHA are U.S. EPA's interim or final "Lifetime Health Advisories." EPA says: "These advisories indicate the level of drinking water contamination below which adverse health effects are not expected to occur." <https://www.epa.gov/newsreleases/epa-announces-new-drinking-water-health-advisories-pfas-chemicals-1-billion-bipartisan>. You can find EPA's "Drinking Water Health Advisories for PFAS, Fact Sheet for Communities" at <https://www.epa.gov/system/files/documents/2022-06/drinking-water-ha-pfas-factsheet-communities.pdf>
3. The IL EPA says: "The guidance levels contained in the Health Advisories represent concentrations in drinking water at which no adverse health effects are expected to occur. <https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/pfas-healthadvisory.aspx>. The Advisory value for GenX can be found at <https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/pfas-statewide-investigation-network.aspx>
4. The ATSDR says that it sets the "Minimal Risk Levels" or "MRLs" "well below a value that is likely to cause a health effect." <https://www.atsdr.cdc.gov/pfas/resources/mrl-pfas.html>

ANALYTICAL REPORT

Eurofins Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

Laboratory Job ID: 320-91328-1

Client Project/Site: 3M Cordova DW Sampling

For:

3M Company
3M Laboratory
3M Center, Building 260-5N-17
St Paul, Minnesota 55144-1000

Attn: Amanda Albrecht



Authorized for release by:

9/16/2022 3:31:10 PM

David Alltucker, Project Manager I
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results through



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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Sample Summary

Client: 3M Company
Project/Site: 3M Cordova DW Sampling

Job ID: 320-91328-1



Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-91328-1	COIL-DW-7063-A-F-220823	Water	08/23/22 11:12	08/24/22 09:55

Client Sample Results

Client: 3M Company
Project/Site: 3M Cordova DW Sampling

Job ID: 320-91328-1

Client Sample ID: COIL-DW-7063-A-F-220823

Lab Sample ID: 320-91328-1

Date Collected: 08/23/22 11:12

Matrix: Water

Date Received: 08/24/22 09:55

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	Unit	D	Analyzed	Dil Fac	Analyst
Perfluoropentanoic acid (PFPeA)	52		1.8	ng/L		09/11/22 20:29	1	K1S
Perfluorohexanoic acid (PFHxA)	8.3		1.8	ng/L		09/11/22 20:29	1	K1S
Perfluoroheptanoic acid (PFHpA)	<1.8		1.8	ng/L		09/11/22 20:29	1	K1S
Perfluorooctanoic acid (PFOA)	5.3		1.8	ng/L		09/11/22 20:29	1	K1S
Perfluorononanoic acid (PFNA)	<1.8		1.8	ng/L		09/11/22 20:29	1	K1S
Perfluorodecanoic acid (PFDA)	<1.8		1.8	ng/L		09/11/22 20:29	1	K1S
Perfluoroundecanoic acid (PFUnA)	<1.8		1.8	ng/L		09/11/22 20:29	1	K1S
Perfluorododecanoic acid (PFDoA)	<1.8		1.8	ng/L		09/11/22 20:29	1	K1S
Perfluorotridecanoic acid (PFTTrDA)	<1.8		1.8	ng/L		09/11/22 20:29	1	K1S
Perfluorotetradecanoic acid (PFTeA)	<1.8		1.8	ng/L		09/11/22 20:29	1	K1S
Perfluorobutanesulfonic acid (PFBS)	35		1.8	ng/L		09/11/22 20:29	1	K1S
Perfluoropentanesulfonic acid (PFPeS)	<1.8		1.8	ng/L		09/11/22 20:29	1	K1S
Perfluorohexanesulfonic acid (PFHxS)	3.4		1.8	ng/L		09/11/22 20:29	1	K1S
Perfluoroheptanesulfonic acid (PFHpS)	<1.8		1.8	ng/L		09/11/22 20:29	1	K1S
Perfluorooctanesulfonic acid (PFOS)	5.2		1.8	ng/L		09/11/22 20:29	1	K1S
NMeFOSAA	<4.5		4.5	ng/L		09/11/22 20:29	1	K1S
NEtFOSAA	<4.5		4.5	ng/L		09/11/22 20:29	1	K1S
4:2 FTS	<1.8		1.8	ng/L		09/11/22 20:29	1	K1S
6:2 FTS	<4.5		4.5	ng/L		09/11/22 20:29	1	K1S
8:2 FTS	<1.8		1.8	ng/L		09/11/22 20:29	1	K1S
9CI-PF3ONS	<1.8		1.8	ng/L		09/11/22 20:29	1	K1S
HFPO-DA (GenX)	7.3		3.6	ng/L		09/11/22 20:29	1	K1S
11CI-PF3OUdS	<1.8		1.8	ng/L		09/11/22 20:29	1	K1S
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.8		1.8	ng/L		09/11/22 20:29	1	K1S
NFDHA	<1.8		1.8	ng/L		09/11/22 20:29	1	K1S
PFMBA	17		1.8	ng/L		09/11/22 20:29	1	K1S
PFMPA	15		1.8	ng/L		09/11/22 20:29	1	K1S
PFEESA	<1.8		1.8	ng/L		09/11/22 20:29	1	K1S
Trifluoromethanesulfonimide (TFSI)	<1.8	+	1.8	ng/L		09/11/22 20:29	1	D1R
Isotope Dilution	%Recovery	Qualifier	Limits			Analyzed	Dil Fac	Analyst
13C4 PFBA	67		25 - 150			09/11/22 20:29	1	D1R
13C5 PFPeA	93		25 - 150			09/11/22 20:29	1	K1S
13C2 PFHxA	113		25 - 150			09/11/22 20:29	1	K1S
13C4 PFHpA	97		25 - 150			09/11/22 20:29	1	K1S
13C4 PFOA	107		25 - 150			09/11/22 20:29	1	K1S
13C4 PFOA	80		25 - 150			09/11/22 20:29	1	D1R
13C5 PFNA	110		25 - 150			09/11/22 20:29	1	K1S
13C2 PFDA	111		25 - 150			09/11/22 20:29	1	K1S
13C2 PFUnA	109		25 - 150			09/11/22 20:29	1	K1S
13C2 PFDoA	111		25 - 150			09/11/22 20:29	1	K1S
13C2 PFTeDA	112		25 - 150			09/11/22 20:29	1	K1S
13C3 PFBS	97		25 - 150			09/11/22 20:29	1	K1S
18O2 PFHxS	103		25 - 150			09/11/22 20:29	1	K1S
13C4 PFOS	98		25 - 150			09/11/22 20:29	1	K1S
13C4 PFOS	99		25 - 150			09/11/22 20:29	1	D1R

Eurofins Sacramento

Client Sample Results

Client: 3M Company
Project/Site: 3M Cordova DW Sampling

Job ID: 320-91328-1

Client Sample ID: COIL-DW-7063-A-F-220823

Lab Sample ID: 320-91328-1

Date Collected: 08/23/22 11:12

Matrix: Water

Date Received: 08/24/22 09:55

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Analyzed	Dil Fac	Analyst
d3-NMeFOSAA	111		25 - 150	09/11/22 20:29	1	K1S
d5-NEtFOSAA	118		25 - 150	09/11/22 20:29	1	K1S
M2-4:2 FTS	145		25 - 150	09/11/22 20:29	1	K1S
M2-6:2 FTS	136		25 - 150	09/11/22 20:29	1	K1S
M2-8:2 FTS	142		25 - 150	09/11/22 20:29	1	K1S
13C3 HFPO-DA	101		25 - 150	09/11/22 20:29	1	K1S

Method: 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	Unit	D	Analyzed	Dil Fac	Analyst
Perfluorobutanoic acid (PFBA)	1100		45	ng/L		09/14/22 02:10	10	K1S
Perfluoropropionic acid (PFPrA)	2000		18	ng/L		09/14/22 02:10	10	K1S
Isotope Dilution	%Recovery	Qualifier	Limits			Analyzed	Dil Fac	Analyst
13C4 PFBA	102		25 - 150			09/14/22 02:10	10	K1S

3M will install either a point of entry treatment (POET) system or a point of use treatment (POUT) system in your house to treat your drinking water. A POET system treats all the water used within your house. A POUT system treats specific locations where drinking water is used, such as your kitchen and bathroom sinks, within your house. Both POET and POUT systems use granular activated carbon (GAC) to remove PFAS from the water and 3M will replace the GAC periodically for proper system performance. 3M will provide maintenance to keep the POET or POUT system functioning as expected.

POET System

A POET system treats all the water used within your house and consists of the following components:

- Initial sediment filter (pre-filter);
- Initial GAC unit (lead GAC unit);
- Second GAC unit (lag GAC unit);
- Second sediment filter (post-filter);
- Volume totalizer; and
- Ultraviolet (UV) disinfection unit.

The photograph below shows a typical POET system in the basement of a house. The actual configuration of your POET system may differ depending on the available space within your house. The POET system configuration will be discussed with you to determine the location in your house.

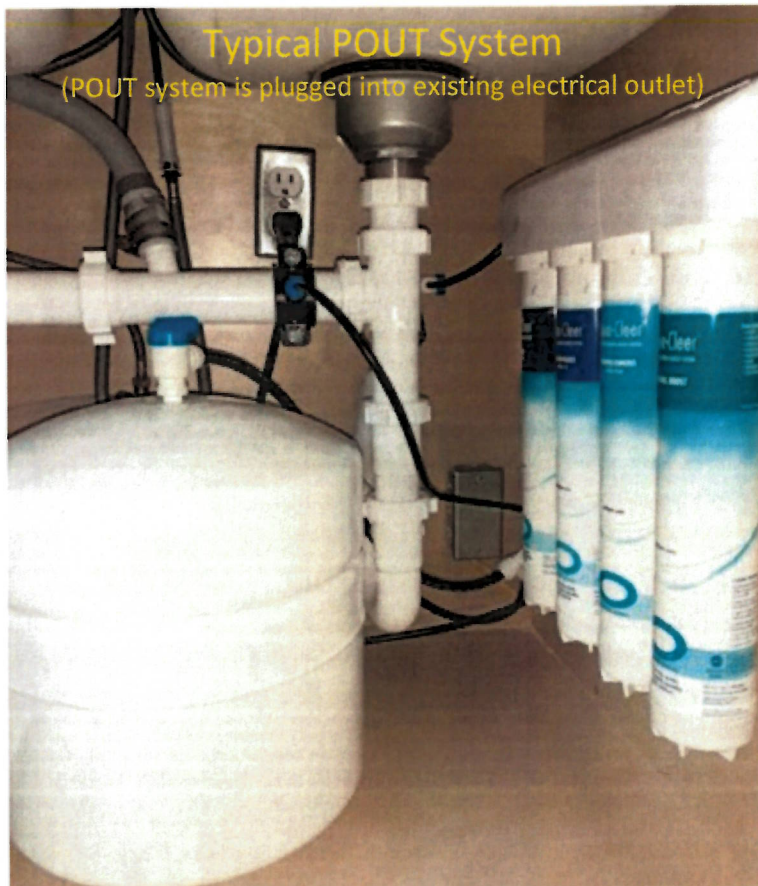


As shown in the photograph on the previous page, the POET system will be installed after your existing water well inlet pipe and existing pressure tank in your house and plugged into an existing electrical outlet. After your pressure tank, the pre-filter, lead and lag GAC units, and post-filter will be connected in series. Sampling ports will also be installed before the lead GAC unit, between the lead and lag GAC units, and after the lag GAC unit. Following these four components, a treated water volume totalizer will be installed to measure the total gallons of water that have been treated. The final component, as shown on this photograph, is the UV disinfection unit. After the UV disinfection unit, the treated water will be distributed throughout your house.

POUT System

Another alternative for treating water within your house is to install a POUT system. The POUT system consists of a multiple cartridge system for sediment removal and GAC treatment and a holding tank or vessel for storing 3 to 4 gallons of treated water.

The photograph below shows a typical POUT system beneath a sink. You may need multiple POUT systems within your house to treat specific locations where you use water for drinking or cooking. The actual configuration of your POUT system may differ depending on the available space beneath each sink location. The POUT system configuration will be discussed with you to the location in your house.



As shown in the photograph, the POUT system will be plugged into an existing electrical outlet and connected to the incoming piping beneath your sink. A three- or four-cartridge system will be connected to the cabinet wall. Similar to the POET system, the cartridges will include an initial sediment filter, two GAC filters, and possibly a second sediment filter. From this cartridge unit, treated water will be stored in a 3- to 4-gallon treated water vessel. The treated water vessel will be then connected to the sink spigots.