



UNITED STATES MARINE CORPS
MARINE CORPS AIR STATION
BEAUFORT, SOUTH CAROLINA 29904-5001

IN REPLY REFER TO
5000
Ser N45/#
Date

Owner
Property #
Address
Beaufort, SC 29906

Dear Sir or Madam:

SUBJECT: DRINKING WATER SAMPLING RESULTS NEAR MARINE CORPS AIR STATION BEAUFORT

Thank you for recently allowing the Navy and Marine Corps to sample your drinking water well for specific per- and polyfluoroalkyl substances (PFAS). I am writing today regarding the test results of your property's drinking water. The test results are provided in the enclosures to this letter.

The test results have been validated and they confirm that concentrations of perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) in your drinking water are below 70 parts per trillion (ppt). The enclosures also provide the test results for other PFAS included in the drinking water test method (EPA Method 537.1) used for this investigation. The Navy and Marine Corps are continuing their PFAS investigations of drinking water under the federal cleanup law and will keep you informed of developments.

On June 15, 2022, the EPA issued new interim drinking water health advisories for PFOA and PFOS. Because these interim health advisories are below detectable limits and are non-regulatory levels, the Department of Defense (DOD) is instead looking to EPA to propose a regulatory drinking water standard, which was anticipated by the end of 2022. DOD is currently evaluating its efforts to address PFAS in drinking water, and what actions we can take to be prepared to incorporate this standard.

The Navy and Marine Corps continue to work in partnership with the South Carolina Department of Health and Environmental Control and the Agency for Toxic Substances and Disease Registry to fulfill our cleanup responsibilities, operating within the law and authorities provided by the federal cleanup law, and clearly communicating and engaging with communities.

We are committed to keeping you informed on developments that may impact you and your neighbors. We will continue to update our public website to keep the public informed about the PFAS investigation as information, research, and regulation from federal, state, or local agencies evolve. The link to the website is <https://go.usa.gov/xJgYA>.

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Additional resources can be found at the Assistant Secretary of the Navy (Energy, Installations & Environment) and EPA PFAS websites. Both links are provided below:

- ASN (EI&E)
<https://www.secnav.navy.mil/eie/pages/pfc-pfas.aspx>
- EPA
<https://www.epa.gov/pfas>

If you have any health questions or concerns, I encourage you to contact your health care provider. If you have any further questions on the process and our next steps, please contact MCAS Beaufort Public Affairs Office at BFRT_JPAO@usmc.mil or 843-228-6123.

We appreciate your continued understanding and cooperation as we work to ensure that human health and the environment are protected.

Sincerely,

K. R. ARBOGAST
Colonel, U.S. Marine Corps
Commanding Officer

Enclosures:

1. Validated Test Results
2. Laboratory Report
3. Explanation of Laboratory Report

Enclosure 1 Validated Test Results

Name: _____
Address: _____
Sample ID: DWXX
Date Collected: _____
Time Collected: _____

Below are the validated test results confirming that perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) in your drinking water are below 70 parts per trillion. These results indicate that no further action by the Navy is required for your property at this time.

Validated Test Results

Chemical Name	Result (ppt)	2016 Health Advisory (ppt)	2022 Interim Updated Health Advisory (ppt)	2022 Final Health Advisory (ppt)
Perfluorooctanoic acid (PFOA)	Not Detected	70	0.004	N/A
Perfluorooctane sulfonate (PFOS)	10	70	0.02	N/A
Total PFOA+PFOS (sum of detections of PFOA and PFOS)	10	70	N/A	N/A
Perfluorohexanoic acid (PFHxA)	Not Detected	N/A	N/A	N/A
Perfluoroheptanoic acid (PFHpA)	Not Detected	N/A	N/A	N/A
Perfluorononanoic acid (PFNA)	Not Detected	N/A	N/A	N/A
Perfluorodecanoic acid (PFDA)	Not Detected	N/A	N/A	N/A
Perfluoroundecanoic acid (PFUnA)	Not Detected	N/A	N/A	N/A
Perfluorododecanoic acid (PFDoA)	Not Detected	N/A	N/A	N/A
Perfluorotridecanoic acid (PFTrDA)	Not Detected	N/A	N/A	N/A
Perfluorotetradecanoic Acid (PFTeDA)	Not Detected	N/A	N/A	N/A
n-Methylperfluorooctanesulfonamido-acetic acid (MeFOSAA)	Not Detected	N/A	N/A	N/A
n-Ethylperfluorooctanesulfonamido-acetic acid (EtFOSAA)	Not Detected	N/A	N/A	N/A
Perfluorobutanesulfonic acid (PFBS)	Not Detected	N/A	N/A	2,000
Perfluorohexanesulfonic acid (PFHxS)	Not Detected	N/A	N/A	N/A
Hexafluoropropylene oxide dimer acid (HFPO-DA)	Not Detected	N/A	N/A	10
4,8-Dioxa-3H-perfluorononanoic acid (Adona)	Not Detected	N/A	N/A	N/A
11-Chloroeicosafluoro-3-oxaundecane- 1-sulfonic acid (11CI-PF3OUdS)	Not Detected	N/A	N/A	N/A
9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	Not Detected	N/A	N/A	N/A

ppt – parts per trillion (1 ppt = 1 ng/L [nanogram per liter])

J – The reported result is an estimated value.

N/A – Not available.

Enclosure 2: Laboratory Report of Performance Sample



Project Client:
 Project Name:
 Project No.:

Client ID MCASB-DWXX-DATE

Battelle ID
 Sample Type SA
 Collection Date
 Extraction Date
 Analysis Date
 Analytical Instrument Sciex 5500 (AC) LC/MS/MS
 % Moisture NA
 Matrix WATER
 Sample Size 0.269
 Size Unit-Basis L

Analyte	CAS No.	Result (ng/L)	DL	LOD	LOQ
PFHxA	307-24-4	ND	0.758	1.63	2.32
PFHpA	375-85-9	ND	0.350	1.16	2.32
PFOA	335-67-1	ND	0.381	1.16	2.32
PFNA	375-95-1	ND	0.359	1.16	2.32
PFDA	335-76-2	ND	0.326	1.16	2.32
PFUnA	2058-94-8	ND	0.301	1.16	2.32
PFDaA	307-55-1	ND	0.500	1.16	2.32
PFTTrDA	72629-94-8	ND	0.397	1.16	2.32
PFTeDA	376-06-7	ND	0.408	1.16	2.32
NMeFOSAA	2355-31-9	ND	0.504	1.16	2.32
NEtFOSAA	2991-50-6	ND	0.627	1.39	2.32
PFBS	375-73-5	ND	0.336	1.16	2.32
PFHxS	355-46-4	ND	0.430	1.16	2.32
PFOS	1763-23-1	10	0.378	1.16	2.32
HFPO-DA	13252-13-6	ND	0.377	1.16	2.32
Adona	919005-14-4	ND	0.287	0.929	2.32
11CI-PF3OUdS	763051-92-9	ND	0.336	1.16	2.32
9CI-PF3ONS	756426-58-1	ND	0.430	1.16	2.32

Surrogate Recoveries (%)	Recovery
13C2-PFHxA	92
13C2-PFDA	86
d5-EtFOSAA	77
13C3-HFPO-DA	78

Data Validator's Signature
 Validation Date

Enclosure 3 (page 1 of 2): Explanation of Laboratory Results

You will notice that the data report comes with several laboratory descriptions that may not be familiar to you. The following definitions of those descriptions may assist you in understanding your sample results:

- **Analyte** – the chemical or substance of interest.
- **CAS No.** – (Chemical Abstracts Service Number) – a universal system to provide a unique, unmistakable identifier for chemical substances.
- **Result (ng/L)** - the amount of an analyte (chemical or substance of interest) determined to be present in the sample analyzed by the laboratory; the reporting units ng/L (nanograms per liter) is the same as ppt (parts per trillion)
- **Detection Limit (DL)** - The lowest analyte concentration that can confidently be distinguished from zero (or a blank) concentration.
- **Limit of Detection (LOD)** - The lowest analyte concentration that must be present in a sample to be confidently (i.e., consistently) detectable.
- **Limit of Quantitation (LOQ)** - The lowest concentration that produces a quantitative result within known and recorded precision and accuracy.
- **Non-Detect (ND)** - indicates the analyte was not detected.
- **Qualifiers (if needed)**
 - **"J" (Estimated Value)** - indicates the value reported for the analyte is above the DL but below the LOQ and was detected. The value reported is considered estimated.

Enclosure 3 (page 2 of 2): Explanation of Lab Results - Example of Lab Report with Definitions and Explanations



Project Client:
Project Name:
Project No.:

Client ID

Battelle ID 13392-FS
Sample Type SA
Collection Date 05/24/2019
Extraction Date 05/28/2019
Analysis Date 05/30/2019
Analytical Instrument Sciex 5500 LC/MS/MS
% Moisture NA
Matrix DW
Sample Size 0.260
Size Unit-Basis L

1 ng/L = 1 ppt
nanogram(s) per liter = part(s) per trillion

The result for PFOA:
PFOA was not detected in the sample, represented as "ND".
The result for PFOS:
PFOS was detected in the sample at 0.13 J ng/L (0.13 J ppt).
The result for PFOA + PFOS:
PFOA + PFOS was detected in the sample at 0.13 ng/L (0.13 ppt).

Analyte was not detected in this sample.
Represented as "ND" (Non-Detect).

Analyte	CAS No.	Result (ng/L)	DL	LOD	LOQ
DV QUALIFIER					
PFHxA	307-24-4	1.2	0.22	0.48	2.40
PFHpA	375-85-9	ND	0.22	0.48	2.40
PFOA	335-67-1	ND	0.19	0.48	2.40
PFNA	375-95-1	0.21 J	0.12	0.38	2.40
PFDA	335-76-2	ND	0.11	0.38	2.40
PFUnA	2058-94-8	ND	0.10	0.38	2.40
PFDoA	307-55-1	ND	0.13	0.48	2.40
PFTTrDA	72629-94-8	ND	0.10	0.38	2.40
PFTeDA	376-06-7	ND	0.21	0.48	2.40
NMeFOSAA	2355-31-9	ND	0.19	0.48	2.40
NEtFOSAA	2991-50-6	ND	0.16	0.48	2.40
PFBS	375-73-5	20	0.12	0.38	2.40
PFHxS	355-46-4	0.56 J	0.12	0.38	2.40
PFOS	1763-23-1	0.13 J	0.14	0.48	2.40
HFPO-DA	13252-13-6	ND	0.09	0.38	2.40
Adona	919005-14-4	ND	0.12	0.38	2.40
11CI-PF3OUdS	763051-92-9	ND	0.10	0.38	2.40
9CI-PF3ONS	756426-58-1	ND	0.12	0.38	2.40

Surrogate Recoveries (%)	Recovery
13C2-PFHxA	129
13C2-PFDA	113
d5-EtFOSAA	95
13C3-HFPO-DA	116

Data Validator's Signature

Validation Date

The detection limit (**DL**) is the lowest analyte concentration that can confidently be distinguished from zero (or a blank) concentration.
The limit of detection (**LOD**) is the lowest analyte concentration that must be present in a sample to be confidently (i.e., consistently) detectable.
The limit of quantitation (**LOQ**) is the lowest concentration that produces a quantitative result within known and recorded precision and accuracy.

This is a data qualifier for this result. Possible qualifiers are:
"J" (Estimated Value) - Indicates the value reported for the analyte is greater than the DL but below the LOQ and was detected. The value reported is considered estimated.
"B" (Blank) - Indicates the compound also was detected in the method blank.