UNITED STATES MARINE CORPS
MARINE CORPS AIR STATION
POSTAL SERVICE CENTER BOX 8003
CHERRY POINT, NORTH CAROLINA 28533-0003

IN REPLY REFER TO:
5090
FAC
February 5, 2018

[redacted]

SUBJECT: DRINKING WATER SAMPLING RESULTS IN THE VICINITY OF MARINE CORPS OUTLYING LANDING FIELD (MCOLF) ATLANTIC

Dear Sir or Madam:

This letter is a follow-up to the letter dated October 17, 2017, where we announced testing for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) in drinking water near Marine Corps Outlying Landing Field (MCOLF) Atlantic in Atlantic, North Carolina. We received your validated sampling results.

The validated sampling results confirm that your drinking water is below the EPA's Lifetime Health Advisory for PFOS and/or PFOA. These results indicate that no further action is required at your property at this time. Please find the validated test results of your residence's drinking water in the enclosures.

The Navy continues to work in partnership with the Region 4 U.S. EPA, the Agency for Toxic Substances and Disease Registry, the North Carolina Departments of Environmental Quality, North Carolina Department of Health and Human Services, and Carteret County Department of Public Health to address PFOA and PFOS locally. If there is new information that becomes available, we will ensure you are made aware of any future actions the Navy will take.

The Navy is hosting an Open House public meeting on Wednesday, February 21, 2018 from 4:00 pm to 7:00 pm at the Atlantic Elementary School to provide and explain the results of the residential sampling program and to provide information on the Navy's next steps to address the findings of this program. You can stop in anytime during those hours; we will have subject matter experts available to answer your questions regarding your results and our next steps.

We are committed to keeping you informed on developments that may impact you and your neighbors. We will continue to update our public website, https://go.usa.gov/xR6SX, as information, research, and regulation from federal, state or local agencies evolve in order to keep residents informed about the investigation.

We appreciate your continued understanding and cooperation as we work to ensure that human health and the environment are protected. If you have additional questions about this letter and what it means for you, please call and leave a message at 1-877-626-5317 or use the NavyAtlanticWater@usmc.mil email address.

Sincerely,

T. W. FERRY
Colonel, U.S. Marine Corps
Commanding Officer

Enclosures: 1. Validated Data Results
2. Lab Results
3. Explanation of Lab Results

Name: [redacted]
Address: [redacted]
Sample ID: [redacted]
Date Collected: [redacted]
Time Collected: [redacted]

Below are the validated test results for the sample of your drinking water. These results indicate that your drinking water sample does not exceed U.S. Environmental Protection Agency's (EPA's) lifetime health advisory level for perfluorooctanoic acid (PFOA) or perfluorooctane sulfonate (PFOS).

The Navy is continuing to work in partnership with the Agency for Toxic Substances and Disease Registry, North Carolina Department of Environmental Quality, North Carolina Division of Public Health (under NC Health and Human Services) and Carteret County Health Department throughout this drinking water investigation for PFOA and PFOS.

Results of Laboratory Analytical Tests for PFAS with EPA Health Advisory Levels

Chemical Name	Nov 2017 Result (ppt)	Health Advisory (ppt)
Perfluorooctane sulfonate (PFOS)	ND	70
Perfluorooctanoic acid (PFOA)	ND	70
PFOS and PFOA (cumulative)	ND	70

Although there is not a health advisory for perfluorobutanesulfonic acid (PFBS), the EPA has estimated a toxicity value for possible health effects when PFBS is ingested. This toxicity value was used by the EPA to calculate a "Regional Screening Level" or RSL. The RSL is a conservative, risk-based level that is used at "Superfund" sites to identify sites that may warrant further investigation or site cleanup. The RSLs are not regulatory or enforceable values, but for additional information, the results are shown below compared to the RSL.

Results for other PFAS where no EPA Health Advisory Levels have been established

Chemical Name	Nov 2017 Result (ppt)	Health Advisory (ppt)	Regional Screening Level (ppt)
Perfluorobutanesulfonic acid (PFBS)	ND	N/A	400,000

Vista Analytical Laboratory

Sample ID: [redacted] **EPA Method 537**

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	[redacted]	Column:	BEH C18
Project:	CTO-08, MCOLF Atlantic / PFAS DW Investigation	Date Collected:	[redacted]	Date Received:			

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.483	5.45	10.9		B7K0131	21-Nov-17	0.229 L	27-Nov-17 12:16	1
PFOA	ND	1.18	5.45	10.9		B7K0131	21-Nov-17	0.229 L	27-Nov-17 12:16	1
PFOS	ND	1.13	5.45	10.9		B7K0131	21-Nov-17	0.229 L	27-Nov-17 12:16	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	102	70 - 130		B7K0131	21-Nov-17	0.229 L	27-Nov-17 12:16	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

mc 1/31.8

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

The detection limit (**DL**)is the lowest level at which the laboratory can reliably "see" that this compound is present.

The limit of detection (**LOD**) is the lowest level at which the laboratory can reliably "see" this compound is **not** present.

The limit of quantitation (**LOQ**) is the lowest level at which the laboratory can reliably measure this compound with a known degree of confidence and accuracy.

This section contains sample processing information used by the laboratory.

Sample ID: WF-RW02-0317 — **EPA Method 537**

Client Data
Name: [redacted]
Project:
Date Collected:
Location: WF-RW02

Sample Data
Matrix: Drinking Water
Sample Size: 0.289 L

Laboratory Data
Lab Sample: [redacted] Date Received: 29-Mar-2017 9:21
QC Batch: B7C0165 Date Extracted: 30-Mar-2017 7:50
Date Analyzed: 04-Apr-17 15:37 Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers
PFBS	ND	3.02	8.65	17.3	
PFOA	6.53	3.93	8.65	17.3	J
PFOS	ND	2.64	8.65	17.3	

Labeled Standard	%R	LCL-UCL	Qualifiers
SUR 13C2-PFHxA	103	70 - 130	
SUR 13C2-PFDA	117	70 - 130	

DL - Detection limit
RL - Reporting limit

LCL-UCL - Lower control limit - upper control limit
Results reported to DL.
When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

The result for PFBS:*

PFBS was not detected in the sample.

This is reported as **"ND" (Non-Detect).**

The result for PFOA:

PFOA was detected in the sample at 6.53 ng/L (6.53 ppt).

The "J" qualifier means that the PFOA was detected but the *amount* detected is estimated.

The result for PFOS:

PFOS was not detected in the sample.

This is reported as **"ND" (Non-Detect).**

This column identifies the data qualifiers that apply to a given result. Possible laboratory qualifiers are:

"J" (Estimated Value) – indicates the value reported for the analyte is below the LOQ and was detected. The value reported is considered estimated.

"B" (Blank) – this compound was also detected in the method blank.

"D" (Diluted Sample) – sample result was taken from a diluted sample.

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Understanding Your Data 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.

• **Concentration (conc.)** - 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)** - is the lowest level at which the laboratory can reliably **"see"** that this compound is present.

• **Limit of Detection (LOD)** - is the lowest level at which the laboratory can reliably "see" this compound is ***not*** present.

• **Limit of Quantitation (LOQ)** - is the lowest level at which the laboratory can reliably measure this compound with a known degree of confidence and accuracy. *Amounts detected below the LOQ are qualified as estimated (J).*

• **Non-Detect (ND**) - indicates the substance was not detected.

Surrogate (SURR) – is a substance with properties that mimic the analyte of interest. It is unlikely to be found in samples and is added to them for quality control purposes.

- **Qualifiers**
    - **"J" (Estimated Value)** - indicates the value reported for the analyte is below the LOQ and was detected. The value reported is considered estimated.
    - **"B" (Blank)** - this compound was also detected in the method blank.
    - **"D" (Diluted Sample)** - sample result was taken from a diluted sample.