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GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
LANSING



C. HEIDI GRETHER  
DIRECTOR

December 21, 2018

VIA E-MAIL

ARMADA, VILLAGE OF  
73300 FLORAL STREET  
ARMADA, MICHIGAN 48005

WSSN: 00240

Dear Water Supply Owner/Operator:

SUBJECT: ARMADA, VILLAGE OF  
Per- and Polyfluoroalkyl Substances (PFAS)

As you may be aware, the Michigan PFAS Action Response Team (MPART) has undertaken a proactive effort to investigate sources and locations of PFAS contamination in Michigan, to protect our drinking water, and to inform the public about PFAS. This involves the work of ten state departments, in coordination with local and federal officials.

One vital piece of this effort is the ongoing collaboration between the Michigan Department of Environmental Quality (MDEQ) and our water supply partners. It is through your generous participation that we are able to set and achieve our goal: to proactively test all community water supplies and schools that are classified as non-transient non-community water supplies for PFAS contamination. Once complete, this study will be an invaluable tool in determining the extent of PFAS in Michigan's drinking water, and empowering the MPART in the pursuit of their mission. We thank you for your continuing partnership, collaboration, and dedication to the residents of our great state.

This letter is intended to provide the results of PFAS analyses in samples collected from ARMADA, VILLAGE OF, WSSN # 00240 (water supply) on the date(s) indicated below.

The table below summarizes the sampling results. A copy of the laboratory report is enclosed for your review. The analyses of these samples reported less than 10 parts per trillion (ppt) for perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA). Your water supply may have returned results greater than non-detect (ND) for the total amount of PFAS analytes tested for. An ND result means the analyte was not detected. Neither the MDEQ nor the United States Environmental Protection Agency (USEPA) have any guidance values for these other analytes at this time. If additional guidance and/or comparison values are developed for these or other PFAS chemicals in the future, we may reevaluate this water supply.



December 21, 2018

Date Collected	Sampling Location	PFOS + PFOA (ppt)	LHA (ppt) PFOS + PFOA	Total Tested PFAS (ppt)
10/30/2018	TP101	ND	70	ND

ND – The parameter was not detected based on the laboratory's analytical report.  
See Official lab results for test method used.

Currently, there is no regulatory drinking water standard for any of the PFAS chemicals. However, in May 2016 the USEPA established a non-regulatory Lifetime Health Advisory (LHA) for two of these chemicals, PFOS and PFOA. The LHA for PFOS and PFOA is 70 ppt combined, or individually if only one of them is present. The USEPA recommends that this LHA applies to both short-term (i.e., weeks to months) scenarios during pregnancy and lactation, as well as to lifetime-exposure scenarios. The LHA is the level, or amount, below which no harm is expected from these chemicals. The Michigan Department of Health and Human Services (MDHHS), as well as the MDEQ, have used this LHA of 70 ppt to inform decisions on actions that should be taken or are recommended to reduce exposure and prevent increased risk to public health from these PFAS contaminants. The USEPA has not set health advisory levels for the other PFAS compounds because not enough is known about them.

Additional information on the health effects of PFAS can be found on the Agency for Toxic Substances and Disease Registry (ATSDR) website listed at the end of this correspondence.

The concentrations of PFOS and PFOA in these samples are well below the USEPA LHA of 70 ppt and are not expected to result in adverse health effects as long as the concentrations are shown to remain below the LHA over time.

Because of the detection of low levels found in the water supply, we have the following recommendations for your consideration. These recommendations are essentially the same actions we have advised public water systems to follow for the past 30-plus years when a new contaminant has been confirmed as present in their drinking water.

1. Inform the public of these sample results through posting on your website or other means. The MDEQ, in collaboration with the MDHHS, has developed a toolkit containing communication templates to help notify the consumers of your water supply on the presence of PFAS in the drinking water and the response measures that are being initiated. This is a resource available to you if you choose and can be modified to fit your needs. The toolkit is available at [www.michigan.gov/pfasresponse](http://www.michigan.gov/pfasresponse) and click on "visit news and education."
2. Please continue with your regularly scheduled monitoring. The MDEQ recommends you also continue monitoring for PFAS on an annual basis to demonstrate the concentrations are consistently and reliably below any existing LHA.

These recommendations are based on the best available and most current information and may change depending on additional information related to site conditions; the availability of new data; or other new information as it becomes available. We may recommend further action at that time.





Lab Sample ID: S96352.01

Sample Tag: GWEF1810301000KME

Location: ARMADA00240TP101

Collected Date/Time: 10/30/2018 10:00

Matrix: Drinking Water

COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	250ml Plastic	Trizma	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample Amount*	284.95 ml	E537	11/06/18 16:30	JGH	

Organics

PFAs Drinking Water, Method: E537, Run Date: 11/19/18 19:51, Analyst: JGH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFHxA*	Not detected	2		ng/L	1	307-24-4	
PFBS*	Not detected	2		ng/L	1	375-73-5	
PFHpA*	Not detected	2		ng/L	1	375-85-9	
PFOA*	Not detected	2		ng/L	1	335-67-1	
PFHxS*	Not detected	2		ng/L	1	355-46-4	
PFNA*	Not detected	2		ng/L	1	375-95-1	
PFDA*	Not detected	2		ng/L	1	335-76-2	
N-MeFOSAA*	Not detected	2		ng/L	1	2355-31-9	
EtFOSAA*	Not detected	2		ng/L	1	2991-50-6	
PFOS*	Not detected	2		ng/L	1	1763-23-1	
PFUnDA*	Not detected	2		ng/L	1	2058-94-8	
PFDoDA*	Not detected	2		ng/L	1	307-55-1	
PFTTrDA*	Not detected	2		ng/L	1	72629-94-8	
PFTeDA*	Not detected	2		ng/L	1	376-06-7	

