



February 8, 2019

Town of Denmark
Attn: Dr. Gerald Wright
4768 Carolina Highway
Denmark, SC 29042

Re: Recent Distribution and Well Sampling
Public Water System (PWS) #0510002
Bamberg County

Dear Dr. Wright,

On January 14 and 15, 2019, SC Department of Health and Environmental Control conducted sampling at the wells and at various points in the distribution system of the Town of Denmark's PWS. Sampling parameters at each well included Total Residual Chlorine (TRC), Bromide, Nitrate / Nitrite, Total Organic Carbon (TOC), Volatile Organic Compounds (VOCs), Pesticides, and Semi-volatile Compounds. Sampling parameters in the distribution system included Total Residual Chlorine, Bromide, Total Coliform / E. Coli bacteria, Disinfection Byproducts, and Iron and Manganese. Attached is a chart summarizing all of the results for this sampling event. Findings and recommendations are below:

1. All distribution samples were absent of bacteria.
2. All wells and distribution samples had acceptable TRC results, with the exception of two low readings. The readings at 4998 Voorhees Road and 18958 Heritage Highway were <0.05 mg/L and 0.10 mg/L, respectively. Due to the low residuals at these addresses, flushing at or near these locations needs to be conducted to improve the chlorine content of the water in this part of the system.
3. All well samples for Nitrate / Nitrite, TOC, VOCs, Pesticides, and Semi-volatile Compounds were below the Maximum Contaminant Level (MCL) set by the Environmental Protection Agency (EPA) where applicable.
4. All distribution samples for Disinfection Byproducts (THMs and HAAs) were below the MCL.

5. All distribution samples for iron and manganese were within the Secondary Standards set by the EPA, with the exception of one location. The iron result at 4998 Voorhees Road was above the EPA's Secondary Standard. Due to the high results at this address, flushing at or near this location needs to be conducted to clear the line and address color concerns in this part of the system. This flushing should be unidirectional and high velocity flushing. The Department recommends consulting with the South Carolina Rural Water Association for assistance in developing a unidirectional flushing program.

The Department looks forward to working with the water system in the future to ensure that the residents of Denmark continue to receive the highest quality of drinking water. If you have any questions or if I can be of any assistance, please contact me at the number or email below.

Sincerely,

A handwritten signature in black ink that reads "Travis Fuss". The signature is written in a cursive style with a large initial "T" and a long, sweeping underline.

Travis Fuss
Bureau of Environmental Health Service
Aiken Environmental Affairs Office
803-642-1637
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<u>Location</u>	<u>TRC¹</u>	<u>Bromide</u>	<u>Iron²</u>	<u>Manganese³</u>	<u>Total Coliform/EColi</u>	<u>THM⁴</u>	<u>HAA⁵</u>
Carolina Hwy	0.37	<0.020	0.14	<0.010	Absent/Absent	ND ⁶	ND
Mill St	0.38	<0.020	0.013	<0.010	Absent/Absent	ND	ND
Wheat St	0.50	<0.020	0.098	<0.010	Absent/Absent	ND	ND
Voorhees Rd < 0.05		<0.020	0.69	<0.010	Absent/Absent	0.00851	ND
Carrie St	0.51	<0.020	0.050	<0.010	Absent/ Absent	ND	ND
Chestnut Ave	0.55	<0.020	0.032	<0.010	Absent/Absent	ND	ND
Locust St	0.54	<0.020	0.24	<0.010	Absent/Absent	ND	ND
Locust St	0.74	<0.020	0.062	0.011	Absent/Absent	ND	ND
Spruce St	0.76	<0.020	0.12	0.020	Absent/Absent	ND	ND
Wisteria St	0.74	<0.020	0.10	0.017	Absent/Absent	ND	ND
Heritage Hwy	0.10	<0.020	<0.020	<0.010	Absent/Absent	ND	ND

<u>Location</u>	<u>TRC¹</u>	<u>Bromide</u>	<u>VOC²</u>	<u>TOC⁸</u>	<u>Pest/Semi⁹</u>	<u>Nitrate/Nitrite¹⁰</u>
Voorhees Well	0.50	<0.020	ND	<1.0	ND	0.025
Acacia Well	0.42	<0.020	ND	<1.0	ND	<0.020
W. Voorhees	0.74	<0.020	ND	<1.0	ND	0.040

Notes:

1. TRC is Total Residual Chlorine, the recommended TRC range is 0.20 mg/L to 2.0 mg/L and the required range is 0.05 mg/L to 4.0 mg/L.
2. The Secondary Standard for Iron is 0.3 mg/L
3. The Secondary Standard for Manganese is 0.05 mg/L.
4. The Maximum Contaminant Level for THMs is 0.080 mg/L.
5. The Maximum Contaminant Level for HAAs is 0.060 mg/L..
6. "ND" indicates the analyte was not detected, or is less than the respective detection limits.
7. VOC is Volatile Organic Compounds.
8. TOC is Total Organic Carbon.
9. Pest/Semi is Pesticides and Semi-volatile Organic Compounds.
10. The Maximum Contaminant Level for Nitrate is 10 mg/L and Nitrite is 1 mg/L