

# South Giles Utility District Water Quality Report 2019

## Is my drinking water safe?

Yes, our water meets all of EPA's health standards. We have conducted numerous tests for over 80 contaminants that may be in drinking water. As you'll see in the chart, we only detected 21 of these contaminants. The compounds detected were far below the level of safety established by the EPA.

## What is the source of my water?

Your water, which is surface water, is purchased from Tarpley Shop and Limestone County and comes from Richland Creek and the Elk River. Our goal is to protect our water from contaminants and we are working with the State to determine the vulnerability of our water source to **potential** contamination. The Tennessee Department of Environment and Conservation (TDEC) has prepared a Source Water Assessment Program (SWAP) Report for the untreated water sources serving this water system. The SWAP Report assesses the susceptibility of untreated water sources to **potential** contamination. To ensure safe drinking water, all public water systems treat and routinely test their water. Water sources have been rated as reasonably susceptible, moderately susceptible or slightly susceptible based on geologic factors and human activities in the vicinity of the water source. The South Giles Utility District sources rated as reasonably susceptible to potential contamination.

An explanation of Tennessee's Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scorings and the overall TDEC report to EPA can be viewed online at <https://www.tn.gov/environment/article/wr-wq-source-water-assessment> or you may contact the Water System to obtain copies of specific assessments.

## Why are there contaminants in my water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. Community water systems are required to disclose the detection of contaminants; however, bottled water companies are not required to comply with this regulation. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Este informe contiene información muy importante. Tradúscalo o hable con alguien que lo entienda bien.

**For more information about your drinking water, please contact Bobby Page cell 931-638-9246 or office at 931-468-2875.**

## How can I get involved?

Our Water Board meets on the third Thursday of each month at 2:00 pm at our office located at 8114 Elkton Pike in Elkton. Please feel free to participate in these meetings.

## Is our water system meeting other rules that govern our operations?

The State and EPA require us to test and report on our water on a regular basis to ensure its safety. We have met all of these requirements. Results of unregulated contaminant analysis are available upon request. We want you to know that we pay attention to all the rules.

## Other Information

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and

can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA and the Tennessee Department of Environment and Conservation prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. Pulaski and Limestone County's water treatment processes are designed to reduce any such substances to levels well below any health concern. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

## Do I Need To Take Special Precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have under-gone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about not only their drinking water, but food preparation, personal hygiene, and precautions in handling infants and pets from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

## Lead in Drinking Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. South Giles Utility District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>

## Water System Security

Following the events of September 2001, we realize that our customers are concerned about the security of their drinking water. We urge the public to report any suspicious activities at any utility facilities, including treatment plants, pumping stations, tanks, fire hydrants, etc. to 931-468-2875

# Water Quality Data

## What does this chart mean?

- **MCLG** - Maximum Contaminant Level Goal, or the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- **MCL** - Maximum Contaminant Level, or the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.
- **MRDL**: Maximum Residual Disinfectant Level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial contaminants.
- **MRDLG**: Maximum residual disinfectant level goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **AL** - Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- **Parts per million (ppm) or Milligrams per liter (mg/l)** – explained in terms of money as a single penny in \$10,000.
- **Parts per billion (ppb) or Micrograms per liter** - explained in terms of money as a single penny in \$10,000,000.
- **Nephelometric Turbidity Unit (NTU)** - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- **TT** - Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

### For customers whose water comes from Tarpley Shop U.D.

Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	No	0	N/A	2019	Present or Absent	0	Presence of coliform in 5% of monthly samples	Naturally present in the environment
Turbidity <sup>1</sup>	No	0.96	0.96-.02	2019	NTU	TT	TT	Soil runoff
Copper*	No	90th%=.051	N/A	9/17	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	No	1.4	1.6-0.0	2019	ppm	0	2	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead*	No	90th%= <.0005	N/A	9/17	ppm	0	AL=.015	Corrosion of household plumbing systems, erosion of natural deposits
Odor	No	4.0	4.0	2017	T.O.N.	0	3.00	
Nitrate (as Nitrogen) <sup>5</sup>	No	.972	N/A	02/19	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	No	2.02	N/A	03/19	ppm	N/A	N/A	Erosion of natural deposits; used in water treatment
Atrazine	No	.000182	N/A	06/25/19	ppm	N/A	.003	Runoff from herbicide used on row crops
Chloride	No	9076	7.95-11.4	2019	ppm	N/A	250	Naturally present in the environment

TTHM <sup>2</sup> [Total trihalomethanes]	No			2019	ppb	N/A	80	By-product of drinking water chlorination
Bunker Hill Rd		54.8avg	29.2-106.0					
Hidden Hollow Rd		47.6avg	29.8-90.3					
Haloacetic Acids (HAA5) <sup>2</sup>	Yes			2019	ppb	N/A	60	By-product of drinking water disinfection.
Bunker Hill Rd xxx		53.2avg	30.7-82.0					
Hidden Hollow Rd xxx		39.9avg	28.6-52.9					
Total Organic Carbon <sup>3</sup>	No	1.25	1.55/.632	12/27/19	ppm	TT	TT	Naturally present in the environment.
Chlorine	No	2.0 Average	3.2-1.0	2019	ppm	MRDL=4	MRDL=4	Water additive used to control microbes.
Barium	No	<0.050	N/A	2019	PPM	2	2	None detected in the last 3 years
Sulfate	No	3.91	3.91-11.6	2019	PPM	0	500	
Dissolved Solids	No	63.7	92-137	2019	PPM	N/A	500	
Color	No	5	N/A	2019	PCU	N/A	15.0	
<b>Unregulated Contaminants</b>		<b>Highest level det.</b>	<b>Lowest level det.</b>		<b>Unit of measure</b>	<b>MCLG</b>	<b>MCL</b>	<b>Likely Source of Contamination</b>
Chloroform	No	0.0363	.0267	06/19	MGL	n/a	n/a	By-product of drinking water chlorination
Chlorodioromomethane	No	ND	0.000685	06/19	MGL	N/A	N/A	By-product of drinking water chlorination
Bromodichloromethane	No	0.00353	0.00558	06/19	MGL	n/a	n/a	By-product of drinking water chlorination

Unregulated contaminants are those for which EPA has not established drinking water standards, The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. For more information, call the Safe Drinking Water Hotline at (800)426-4791.

\*During the most recent round of Lead and Copper testing, only 0 out of 30 households sampled contained concentrations exceeding the action level. Per EPA regulations, we only test for lead and copper every three years. Out of the thirty sites tested in 2018, no sites exceeded the action level for lead and copper. Lead and Copper values are 90<sup>th</sup> percentile values.

<sup>1</sup>Turbidity is a measure of how cloudy the water is. We check the turbidity of the water throughout the treatment process in order to gage how well our filters are working. We met the treatment technique for turbidity with 99% of monthly samples below the turbidity limit of 0.3 NTU.

<sup>2</sup> Compliance with the MCL for HAA5s and TTHMs are based on an annual average of four samples per site. The level represented in the "Highest Level Detected" column is the average for 2019. While your drinking water meets the EPA standard for total trihalomethanes, it does contain trihalomethanes. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

The South Giles Utility District was in violation on our total haloacetic acids (HAA5) at site # 101, and site #203, during the 1<sup>st</sup> and 3rd quarters of 2019. Haloacetic acids are disinfection byproducts resulting from chlorination of water to minimize risk of microbial life in drinking water. We purchase some of our water from Tarpley Shop Utility District, who purchases all of their water from the City of Pulaski. Working together, our efforts have resulted in our samples testing back in compliance.

<sup>3</sup>We have met all treatment technique requirements for Total Organic Carbon removal. This gives us an idea of how well our disinfection process is working.

<sup>5</sup>Nitrate. Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

*Cryptosporidium is a microbial parasite which is found in surface water throughout the U.S. Although Cryptosporidium can be removed by filtration, the most commonly used filtration methods cannot guarantee 100 percent removal. Monitoring of our source water indicated the presence of cryptosporidium in our source water. Current test methods do not allow us to determine if these are dead or capable of causing disease. No Cryptosporidium were detected in finished water samples. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals are able to overcome the disease within a few weeks. However, immuno-compromised people have more difficulty and are at greater risk of developing severe, life threatening illness. Immuno-compromised individuals are encouraged to consult their doctor regarding appropriate precautions to take to prevent infection. For more information on Cryptosporidium, contact the Safe Drinking Water Hotline (800-426-4791).*

The Commissioners of South Giles Utility District serve four-year terms. Vacancies on the Board of Commissioners are filled by the vote of the remaining commissioners in office, followed by the approval of the County Executive. Decisions by the Board of Commissioners on customer complaints brought before the Board of Commissioners under the District’s customer complaint policy may be reviewed by the Utility Management Review Board of the Tennessee Department of Environment and Conservations pursuant to Section 7-82-702(7) of Tennessee Code Annotated.

**Cross-Connection Information**

Cross-connections are the links through which it is possible for contaminating material to enter a potable water supply. The contaminants enter the water system when the pressure of the polluted source exceeds the pressure of the potable source. This action may be called back-siphonage, or back-flow. Back-siphonage or back-flow is the reversal of the hydraulic gradient that can be produced by a variety of circumstances. Ironically, the ordinary garden hose is the most common offender as it can be easily connected to the potable water supply and used for a variety of potentially dangerous applications. If you are adding water or filling a water tank or swimming pool, please stop by our office to pick-up a complementary vacuum breaker, before you start the filling process. It is the primary goal of The South Giles Utility District to eliminate all possible cross-connections and ensure that our drinking water remains free of any harmful contaminants.

If you have any questions or comments about how you can help prevent cross-connections from happening, please contact your Cross-Connection Officer, Bobby Page cell 931-638-9246 or office 931-468-2875.

# W a t e r   Q u a l i t y   D a t a

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**For customers whose water comes from Limestone County.**

Contaminant	Violation Yes/ No	Level Detected	Range of Detectio ns	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
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Total Coliform Bacteria	No	0	N/A- Present / Absent	2019	Colonies/ 100ml	0	<5%	Naturally present in the environment
Fecal Coliform and E. Coli	No	0	N/A- Present / Absent	2019	Colonies/ 100ml	0	0	Naturally present in the environment
Turbidity <sup>1</sup>	No	0.28	0.01-0.28	2019	NTU	n/a	-	Soil runoff
Copper*	No	<0.050	None detected in the past 3 years	2019	Mg/l	1.0	AL=1.0	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	No	<0.25		2019	Mg/l	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead*	No	<0.005	None detected in the past 3 years	2019	Mg/l	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen) <sup>5</sup>	No	3.7	3.35-5.71	2019	Mg/l	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	No	3.41	1.50-3.41	2019	Mg/l	N/A	-	Erosion of natural deposits; used in water treatment
Atrazine	No	< 1.0	None detected in the past 3 years	2019	Ppb	3	3	Runoff from herbicide used on row crops
Nickel	No	<0.050	N None detected in the past 3 years /A	2019	Mg/l	N/A	0.1	Erosion of natural deposits
Barium	No	<0.050	None detected in the past 3 years	2019	Mg/l	2	2	Discharge of drilling waste; discharge from metal refineries; erosion of natural deposits
Sulfate	No	3.91	3.91-11.6	2019	Mg/l	N/A	500	Erosion of natural deposits
TTHM <sup>2</sup> [Total trihalomethanes]	No			2019	ppb	N/A	80	By-product of drinking water chlorination
Bunker Hill Rd		54.8avg	29.2-106.0					
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Total Organic Carbon <sup>3</sup>	No	1.25	1.55-.632	2019	ppm	TT	TT	Naturally present in the environment.

Chlorine	No	1.17	.50-2.0	2019	ppm	4	4	Water additive used to control microbes.
Chloride	No	9.76	7.95-11.4	2019	Mg/l	N/A	250	Naturally present in the environment
Dissolved Solids	No	172	148-172	2019	Mg/l	N/A	500	
Color	No	<5	-	2019	pcu	-	15	
<b>Volatile Organic Compounds (VOC)</b>		<b>Results, ppb</b>			<b>Unit of Measure</b>	<b>MDL, ppm</b>	<b>MCL, ppb</b>	<b>Comments</b>
Methylene Chloride (Dichloromethane)	No	<0.50	None detected in the past 3 years	2019	ppm	.050	.005	
Chloroform	No	0.021	0 .00713-0.0397	2019	ppm	0.50	n/a	Naturally present in the environment
Bromodichloromethane	No	0.0051	0.00148-0.00868	2019	ppm	0.50	n/a	

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<sup>1</sup>100% of our samples were below the turbidity limit.

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**The South Giles Utility District was in violation on our total haloacetic acids (HAA5) at site # 101 Bunker Hill Rd and site #203 Hidden Hollow Rd during the 1<sup>st</sup> and 2<sup>nd</sup> quarters of 2017. Haloacetic acids are disinfection byproducts resulting from chlorination of water to minimize risk of microbial life in drinking water. We purchase some of our water from Tarpley Shop Utility District, who purchases all of their water from the City of Pulaski. Working together, our efforts have resulted in our samples testing back in compliance.**

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Please remember to take you old medication to a drug disposal location; each county has one. Check with the County Sheriff's Department for your nearest location. Flushing drugs or chemicals down the toilet may cause that item to leach into the soil, and eventually into ground water. Some drugs or chemicals are not removed completely by the water filtration process.