

CITY OF SHELLMAN
2021 WATER QUALITY REPORT

Georgia Water System ID #: GA2430001

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Summary of Water Quality Information

The **City of Shellman** drinking water system is owned and operated by the **City of Shellman**. The facility office is located at 51 Park Avenue in Shellman, Georgia. For questions or comments, please feel free to visit City Hall or the numbers listed above.

Included in this report is information about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. The **City of Shellman** is committed to providing your community with clean, safe, and reliable drinking water. For more information about your water or this report please contact City Hall. **This report is available upon request at City Hall.**

Your water comes from one (1) community *groundwater* well identified as well 105. The water source for this well is called the *Clayton Aquifer* and it provides ample volume of water for your community. Well 105 is located on Payne Street in Shellman, Georgia. This property is protected from activities which could potentially cause contamination of the water source. Treatment is performed at the well to include chlorine disinfection and removal of contaminants.

A **Wellhead Protection Plan (WHPP)** has been completed for this facility by the Georgia Department of Natural Resources Environmental Protection Division (GA EPD). This report identifies any types of pollution to which your water supply could be vulnerable and includes information regarding potential sources of contamination in your watershed. This system is considered to be in the higher susceptibility range for pollution. Cited potential pollution sources include utility poles, electrical transformers, vehicle parking, sewer lines, access and secondary roads and the city maintenance building. For more information, a **copy of the full WHPP is available to you upon request at City Hall.**

The **City of Shellman** water system is tested for more than eighty (80) drinking water parameters on a periodic basis determined by the GA EPD Drinking Water Program and/or the U.S. Environmental Protection Agency. Sample/testing schedules are based on initial contaminant level assessments and can be changed if necessary. Waivers may also be issued for any of the compounds if analytical data shows that the distributed drinking water in this area is not vulnerable to contamination from these chemicals. Generally, samples are collected from the **City of Shellman** water system for radionuclide testing once in a (9) year cycle. Every three (3) years your drinking water is analyzed for lead, copper, inorganic compounds, volatile organic compounds, and synthetic organic compound. Nitrate-nitrites, TTHMs/HAA5 levels are tested yearly, and bacteriological content is monitored monthly.

During 2021, samples were taken from the City of Shellman water system for the bacteriological analysis. While there were no noted violations for bacterial analyses during the 2021 monitoring events, the City of Shellman water system failed to monitor for Nitrate-Nitrites, TTHMs and HAA5s. Additionally, in August 2020, a water sample tested positive for total coliforms, triggering the need for additional sampling within 24 hours of receiving the positive result. Samples needed to be tested for fecal indicators from all sources that were being used at the time the positive sample was collected. Due to an oversight, we failed to collect the correct number of follow-up samples within the appropriate time frame. In January 2022, an additional bacteriological sample was taken, and a public notification was procured to conform to the GA EPD requirements; violations were concluded after meeting previously mentioned requisites. The Public Notification Rule helps to ensure that consumers always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water. We failed to adequately notify you, our drinking water consumers, about these violations of the drinking water regulations. This document serves as a portion of the Public Notification, and further corrective actions are being taken by the system in accordance with the GA EPD rules and guidelines. Because of these failures we cannot be sure of the water quality during the violation periods. Nitrate levels in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider. Some people who drink water containing TTHMs and/or HAA5s in excess of the MCL(s) over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer. Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may also pose a special health risk for infants, young children, and people with severely compromised immune systems. **All detected contaminants are delineated in the accompanying chart. Any contaminants not listed had results below the detection limit and/or MCL**

For the most recent lead and copper monitoring event, ten (10) locations were sampled throughout your community including single- and- multi residences, commercial buildings, and municipal buildings. Test results show detectable levels of lead and/or copper in one or more samples, however, **NO** sampled sites exceeded the action level limit for these either contaminant. This indicates the presence of some service lines that may contain these contaminants.

Lead and copper are metals naturally found throughout the environment in soil and water. These metals can also be found in lead, copper, or brass household plumbing pipes and fixtures. Even consumer products such as paints, pottery, and pewter can contain

lead and/or copper. Corrosion or deterioration of lead or copper-based materials, as well as erosion of natural deposits can release these metals into the 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. The City of Shellman 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>.

The following measures may also be taken to minimize exposure to lead and/or copper:

- Flush your tap for 30 seconds to 2 minutes before using water for drinking or cooking.
- Use cold water for drinking or cooking.
- Do not cook with or consume water from the hot water faucet.
- Do not use hot water for making baby formula.
- Use only “lead-free” solder, fluxes and materials in new household plumbing and repairs.

Drinking water, including bottled water, may be expected to contain at least small amounts of contaminants. 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 EPA’s Safe Drinking Water Hotline at 800-426-4791.**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone 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 drinking water from their health care providers. **EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline.**

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 include the following:

- **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 storm 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 storm water 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 storm water runoff, agricultural application, and septic systems.
- **Radioactive contaminants**, which can be naturally occurring or the result of oil/gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The City of Shellman strives to maintain the highest standards of performance and quality possible. In order to maintain a safe and dependable water supply, improvements that benefit the community must be made. Please help keep these costs as low as possible by utilizing good water conservation practices.

DEFINITION OF TERMS AND ABBREVIATIONS USED IN THIS REPORT

Maximum Contaminant Level (MCL): “The highest level of a contaminant that is allowed in drinking water. MCL’s are set as close to the MCLG as feasible using the best available treatment technology.”

Maximum Contaminant Level Goal (MCLG): “The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG’s allow for a margin of safety.”

Secondary Maximum Contaminant Level (SMCL): reasonable goals for drinking water quality. Exceeding SMCL’s may adversely affect odor or appearance, but there is no known risk to human health.

Treatment Technique (TT): “A required process intended to reduce the level of a contaminant in drinking water.”

TTHMs (Total Trihalomethanes): One or more of the organic compounds Chloroform, Bromodichloromethane, Chlorodibromomethane, and/or Bromoform.

HAA5s (Haloacetic Acids): One or more of the organic compounds Monochloroacetic Acid, Dichloroacetic Acid, Trichloroacetic Acid, Monobromoacetic Acid, and Dibromoacetic Acid.

**CITY OF SHELLMAN WATER SYSTEM
2021 WATER QUALITY DATA
WSID: GA2430001**

The table below lists all the drinking water contaminants that have been detected in your drinking water. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The data presented in this table is from testing done during the year noted. The Federal Environmental Protection Agency (EPA) and the Georgia Department of Natural Resources Environmental Protection Division (EPD) require monitoring for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Parameters, values, and/or sources may vary.

DETECTED INORGANIC CONTAMINANTS TABLE								
PARAMETER	UNITS	MCL [SMCL]	MCLG	City of Shellman Water System Results	Range of Detections	Sample Date	Violation No/Yes	Typical Source of Contaminant
Barium	ppm	2	2	0.0155	0.0155 to 0.0155	2020	No	Discharge of drilling wastes or from metal refineries; Erosion of natural deposits
Chlorine	ppm	4	4	1.0	1.0 to 1.0	2020	No	Water additive used for control of microbes
Fluoride	ppm	4	4	0.0794	0.0794 to 0.0794	2020	No	Erosion of natural deposits; water additive which promotes strong teeth
Iron	ppb	[300]	**	314	314 to 314	2020	No	Erosion of natural deposits
Manganese	ppm	[50]	**	0.016	0.016 to 0.016	2020	No	Erosion of natural deposits
Nitrate	ppm	10	10	ND	ND	2020	Yes ¹	Runoff from fertilizer use; erosion of natural deposits
Sulfate	ppm	[250]	**	17.3	17.3 to 17.3	2020	No	Erosion of natural deposits
Zinc	ppm	[5]	**	0.009	0.009 to 0.009	2020	No	Erosion of natural deposits

DETECTED VOLATILE ORGANIC CONTAMINANTS TABLE								
PARAMETER	UNITS	MCL	MCLG	City of Shellman Water System Results	Range of Detections	Sample Date	Violation No/Yes	Typical Source of Contaminant
HAA5	ug/l	60	**	ND	N/A	2020	Yes ¹	By product of drinking water disinfection
TTHMs	ug/l	80	**	0.36	0.36 to 0.36	2020	Yes ¹	By product of drinking water disinfection

OTHER DETECTED UNREGULATED CONTAMINANTS TABLE								
PARAMETER	UNITS	MCL [SMCL]	MCLG	City of Shellman Water System Results	Range of Detections	Sample Date	Violation No/Yes	Typical Source of Contaminant
Sodium	ppm	**	**	4.0	4.0 to 4.0	2020	No	Erosion of natural deposits

LEAD AND COPPER MONITORING RESULTS								
PARAMETER	UNITS	Action Level	MCLG	City of Shellman 90th Percentile	# of sample sites above AL	Sample Date	Violation No/Yes	Typical Source of Contaminant
Lead	ppb	15	0	0.80	0 of 10	2019	No	Corrosion of household plumbing
Copper	ppm	1.3	1.3	0.039	0 of 10	2019	No	Corrosion of household plumbing

MICROBIOLOGICAL MONITORING RESULTS								
PARAMETER	Units	MCL	MCLG	City of Shellman # of Positive Samples	Positive Sample Date (Month)	Sample Year	Violation No/Yes	Typical Source of Contaminant
Total Coliform	Present/ Absent	1*	0	0	N/A	2021	No	Naturally present in the environment
E. coli		0	0	0	N/A	2021	No	Human and animal fecal waste

RADIONUCLIDES TABLE								
PARAMETER	UNITS	MCL	MCLG	City of Shellman Water System Results	Range of Detections	Sample Date	Violation No/Yes	Typical Source of Contaminant
Alpha emitters	pCi/L	15	0	ND	N/A	2020	No	Erosion of natural deposits
Combined Radium 226/228	pCi/L	5	0	ND	N/A	2020	No	Erosion of natural deposits

*Total Coliform Rule MCL= 1 positive sample for systems that collect <40 samples a month ** No established MCL, SMCL or MCLG

•N/A: Not applicable to this contaminant •ppb (ug/L): parts per billion or micrograms per liter •ppm (mg/L): parts per million or milligrams per liter •pCi/l: picocuries per liter, a measurement of radiation

•ND (Not Detected): By regulation, this substance or group of substances was tested for in our finished tap water; however, none was detected at the testing limit.

•Action Level (AL): "The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow."

¹ Monitoring violation, failure to monitor; See full Water Quality Report for details.