2022 Annual Drinking Water Quality Report
City of Southaven
PWS#: 0170018 April
2023

We're pleased to present to you this year's Annual Quality Water Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

About Our System

The City of Southaven has taken steps to accommodate new and future growth in the city. For instance, in early 2022, the city started the construction of a new water treatment facility on Starlanding Road, just west of Getwell. This facility is expected to be fully operational by early summer of 2023. Additionally, the city completed a system wide replacement of all water meters in 2022, resulting in the most accurate readings and billing for every customer. These are just a few of the measures we are implementing to provide the highest quality service to our customers.

Contact & Meeting Information

If you have any questions about this report or concerning your water utility, please contact Ray Humphrey at 662.393.7353. We want our valued customers to be informed about their water utility. If you want to learn more, please join us at any of our regularly scheduled meetings. They are held on the first Tuesday & Thursday of the every month at 6:00 PM at the City Hall located at 8710 Northwest Dr. Southaven, MS 38671.

Source of Water

Our water source is from wells drawing from the Sparta Aquifer. The source water assessment has been completed for our public water system to determine the overall susceptibility of its drinking water supply to identify potential sources of contamination. A report containing detailed information on how the susceptibility determinations were made has been furnished to our public water system and is available for viewing upon request. The wells for the City of Southaven have received lower to moderate rankings in terms of susceptibility to contamination.

Period Covered by Report

We routinely monitor for contaminants in your drinking water according to federal and state laws. This report is based on results of our monitoring period of January 1st to December 31st, 2022. In cases where monitoring wasn't required in 2022, the table reflects the most recent testing done in accordance with the laws, rules, and regulations.

As water travels over the surface of land or underground, it dissolves naturally occurring minerals and, in some cases, radioactive materials and can pick up substances or contaminants from the presence of animals or from human activity; microbial contaminants, such as viruses and bacteria, that 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-water 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 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 prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily indicate that the water poses a health risk.

Terms and Abbreviations

In the table you may find unfamiliar terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

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

Maximum Contaminant Level (MCL): The "Maximum Allowed" (MCL) is 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.

Maximum Contaminant Level Goal (MCLG): The "Goal"(MCLG) is 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.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary to control microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk of health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Parts per billion (ppb) or micrograms per liter: one part by weight of analyte to 1 billion parts by weight of the water sample.

Parts per million (ppm) or Milligrams per liter (mg/l): one part by weight of analyte to 1 million parts by weight of the water sample.

Picocuries per liter (pCi/L): Picocuries per liter is a measure of the radioactivity in water.

# TEST RESULTS

| Contaminant | Violation Y/N | Date Collected | Level Detected | Range of Detects or # of Samples Exceeding MCL/ACL/MRDL | Unit Measurement | MCLG | MCL | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|---|
| **Radioactive Contaminants** | | | | | | | | |
| 5. Gross Alpha | N | 2019 * | 1.6 | No Range | pCi/L | 0 | 15 | Erosion of natural deposits |
| 6. Radium 226<br>Radium 228 | N | 2019* | .89<br>1 | .48 - .89<br>.77 – 1 | pCi/L | 0 | 5 | Erosion of natural deposits |
| **Inorganic Contaminants** | | | | | | | | |
| 10. Barium | N | 2022 | .0279 | .0195 - .0279 | ppm | 2 | 2 | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits |
| 13. Chromium | N | 2021 | .5 | No Range | ppb | 100 | 100 | Discharge from steel and pulp mills; erosion of natural deposits |
| 14. Copper | N | 2019/21* | .1 | 0 | ppm | 1.3 | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| 16. Fluoride | N | 2022 | 1.25 | .638- 1.25 | ppm | 4 | 4 | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| 17. Lead | N | 2019/21* | 1 | 0 | ppb | 0 | AL=15 | Corrosion of household plumbing systems, erosion of natural deposits |
| 19. Nitrate (as Nitrogen) | N | 2022 | .484 | .214 - .484 | ppm | 10 | 10 | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| 22. Thallium | N | 2022 | 2 | No Range | ppb | 0.5 | 2 | Leaching from ore-processing sites; discharge from electronics, glass, and drug factories |
| **Unregulated Contaminants** | | | | | | | | |
| Sodium | N | 2021* | 18.8 | 11.9 – 18.8 | ppm | 20 | 0 | Road Salt, Water Treatment Chemicals, Water Softeners and Sewage Effluents. |
| **Disinfection By-Products** | | | | | | | | |
| Chlorine | N | 2022 | 1.1 | .64 – 1.76 | Mg/l | 0 | MRDL = 4 | Water additive used to control microbes |

* Most recent sample. No sample required for 2022. ** Fluoride level is routinely adjusted to the MS State Dept. of Health's recommended level of 0.6 - 1.2 mg/l.

We are required to monitor your drinking water for specific contaminants on a monthly basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. In an effort to ensure systems complete all monitoring requirements, MSDH now notifies systems of any missing samples prior to the end of the compliance period.

**LEAD INFORMATION**

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. Our water system 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 Mississippi State Department of Health Public Health Laboratory offers lead testing. Please contact 601.576.7582 if you wish to have your water tested.

**FLUORIDE INFORMATION**

To comply with the "Regulation Governing Fluoridation of Community Water Supplies", the CITY OF SOUTHAVEN is required to report certain results pertaining to fluoridation of our water system. The number of months in the previous calendar year in which average fluoride sample results were within the optimal range of 0.6-1.2 ppm was 11. The percentage of fluoride samples collected in the previous calendar year that was within the optimal range of 0.6-1.2 ppm was 98%. The number of months samples were collected and analyzed in the previous calendar year was 12.

**VIOLATIONS**

As you can see by the table, our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected, however the EPA has determined that your water IS SAFE at these levels.

**UNREGULATED CONTAMINANTS**

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 regulations are warranted.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man-made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the 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 at 1.800.426.4791.

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 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 microbiological contaminants are available from the Safe Drinking Water Hotline 1.800.426.4791.

The City of Southaven works around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.