

2020 Annual Drinking Water Quality Report
 City of Jackson
 PWS#: 0250008 & 0250012
 May 2021

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.

If you have any questions about this report or concerning your water utility, please contact Dr. Gwendolyn Braddy-Nelson at 601.960.2723. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on every other Tuesday of the month at 10:00 AM or 6:00 PM within the City Hall.

Our water source is from wells drawing from the Sparta System, J. H. Fewell WTP is surface water intake for Pearl River, O.B. Curtis WTP is surface water intake from the Ross Barnett Reservoir. The source water assessment has been completed for our public water system to determine the overall susceptibility of its drinking water supply to identified 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 have received lower to moderate susceptibility rankings to contamination.

We routinely monitor for contaminants in your drinking water according to Federal and State laws. This table below lists all of the drinking water contaminants that we detected during the period of January 1st to December 31st, 2020. In cases where monitoring wasn't required in 2020, the table reflects the most recent results. 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.

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

Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which 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 for 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 million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

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

PWSID # 250008 TEST RESULTS								
Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/ACL	Unit Measure -ment	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants								
Turbidity	Y	2020	1.35	Lowest monthly % below 0.3 NTU = 93.5 %	NA	0		TT Soil runoff
Total Organic Carbon (TOC)	N	2020 Sampled Weekly/Monthly	58% Removal (45-50% Required)	17 – 94% Removal	NA	NA		TT Naturally present in the environment

Radioactive Contaminants								
5. Gross Alpha	N	2019*	2.4	.79 – 2.4	pCi/L	0	15	Erosion of natural deposits
6. Radium 228	N	2020	1.4	No Range	pCi/L	0	5	Erosion of natural deposits
Inorganic Contaminants								
8. Arsenic	N	2020	.7	.6 - .7	ppb	n/a	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
10. Barium	N	2020	.0238	.0163 - .0238	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
13. Chromium	N	2020	.8	.5 – .8	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper	N	1-6/2020 7-12/2020	.1 .1	0 0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
15. Cyanide	N	2020	51	27 - 51	ppb	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
16. Fluoride	N	2020	.842	.1 – .842	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead	N	1-6/2020 7-12/2020	4 5	0 0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
19. Nitrate (as Nitrogen)	N	2020	.13	.09 - .13	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
20. Nitrite (as Nitrogen)	N	2020	.03	No Range	ppm	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	N	2020	18.7	34.4 – 18.7	ppm	NONE	NONE	Erosion of natural deposit; Leaching

Disinfection By-Products								
81. HAA5	Y	2020	66	2 - 80	ppb	0	60	By-Product of drinking water disinfection.
82. TTHM [Total trihalomethanes]	N	2020	64	18.2 - 90	ppb	0	80	By-product of drinking water chlorination.
Chlorine	N	2020	2	0 – 4.2	mg/l	0	MRDL = 4	Water additive used to control microbes

Unregulated Contaminants								
HAA5	N	2020	58.2	49.6 – 58.2	UG/L			
HAA6BR	N	2020	2.15	1.76 – 2.15	UG/L			
HAA9	N	2020	60.35	51.36 – 60.35	UG/L			

PWSID # 250012 TEST RESULTS								
Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/ACL	Unit Measure -ment	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants								
6. Radium 226 Radium 228	N	2020	.85 1.2	.83 - .85 1 – 1.2	pCi/L	0	5	Erosion of natural deposits
Inorganic Contaminants								
10. Barium	N	2020	.0038	.0017 - .0038	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
13. Chromium	N	2020	3.2	1.4 – 3.2	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits

14. Copper	N	7-12/2020	.1	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
16. Fluoride	N	2020	1.17	.413 – 1.17	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead	N	7-12/2020	2	0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

Volatile Organic Contaminants

56. Carbon tetrachloride	N	2020	.701	.594 - .701	ppb	0	5	Discharge from chemical plants and other industrial activities
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Disinfection By-Products

Chlorine	N	2020	1.2	.1 – 3.3	mg/l	0	MRDL = 4	Water additive used to control microbes
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* Most recent sample. No sample required for 2020.

Our system received the following violations that the public notice has been completed for: Failure to address deficiency, Turbidity, the Lead & Copper Rule, Failure to maintain microbial treatment, MCL for HAA5..

We routinely monitor the water for turbidity (cloudiness). This tells us whether we are effectively filtering the water supply. A water sample taken on January 28, 2020 showed a turbidity level of 1.35 turbidity units which is above the standard of .30 turbidity units. This occurred because the amount of water being brought into the plant was restricted which caused low operating levels at the treatment plant. Currently, the City of Jackson Water Treatment Plant is not out of compliance; however, this occurrence did create a compliance issue. Due to the high level of turbidity. The City of Jackson Water/sewer Utilities Division has issued a City Wide precautionary boil water advisory until proof of compliance for turbidity levels have been submitted and approved by MSDH. (Taken from a boil water alert dated 2/14/20.)

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.

Significant Deficiencies System # 250008

Monitoring and Reporting of Compliance Data Violations:

During a sanitary survey conducted on 2/03/2020, the Mississippi State Department of Health cited the following significant deficiency(s):

Function and Condition of Treatment Facilities – 4 violations

Condition of Source Facilities – 2 violations

Capacity of Treatment Facilities – 1 violation

Condition of Water Storage Tanks – 1 violation

Monitoring Plans and Systems – 5 violations

Inadequate application of treatment chemicals and techniques (primary MCLs) – 1 violation

Inadequate follow up on previous deficiencies – 1 violation

Water System Staffing – 1 violation

Significant Deficiency Not otherwise specified - - 7 violations

Corrective Actions: This system is in negotiations with the Environmental Protection Agency for an approvable plan to complete corrective actions. Once negotiations are complete a more definitive timeline will be proved for the individual deficiencies cited. MSDH anticipate 12/31/2021.

Significant Deficiencies System # 250012

Monitoring and Reporting of Compliance Data Violations:

During a sanitary survey conducted on 11/11/2020, the Mississippi State Department of Health cited the following significant deficiency(s):

Finished Water Storage

Corrective Actions: This system is in negotiations with the Environmental Protection Agency for an approvable plan to complete corrective actions. Once negotiations are complete a more definitive timeline will be proved for the individual deficiencies cited. MSDH anticipate 12/31/2021.

To comply with the “Regulation Governing Fluoridation of Community Water Supplies”, our system # 250008 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 12. The percentage of fluoride samples collected in the previous calendar year that was within the optimal range of 0.6-1.2 ppm was 100%.

To comply with the "Regulation Governing Fluoridation of Community Water Supplies", our system # 250012 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 12. The percentage of fluoride samples collected in the previous calendar year that was within the optimal range of 0.6-1.2 ppm was 91%.

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 Jackson 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.