

Annual Drinking Water Quality Report

City of Jemison

January-December 2021

Is my water safe?

Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (USEPA) and the Alabama Department of Environmental Management (ADEM) drinking water health standards. Your local water officials vigilantly safeguard its water supplies and once again we are proud to report that our system has not violated a maximum contaminant level or any other water quality standards. We're pleased to present to you this year's Annual Drinking Water Quality 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. We purchase our water from the Town of Thorsby where groundwater wells provide source water for our system. Well #5 draws from the Hillabee Greenstone Aquifer. Well#6 and #7 draw from the Jemison Chert Aquifer. The water we supply to our customers requires no specialized treatment. However, Chlorine is added to the water as disinfectant and the required residual is maintained to protect your drinking water from any possible outside contaminants.

The City of Jemison routinely completes a water storage facility inspection plan, and utilizes a Bacteriological Monitoring Plan and a Cross Connection Policy is in place to insure good safe drinking water for our customers. We have completed a Source Water Assessment Plan, which is available at our office for review. This report provides information about potential sources of contamination and is set up to help protect our source.

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 Board meetings. They are held on the 1st and 3rd Monday of the month at the Jemison City Hall that is located at 14 Padgett Lane and begin at 6:00 p.m.

The members of the Board of Directors are:

Mayor - Eddie Reed	Council Members:	Donnie Lane
Donna Manasco	Rex Bittle	Sam Reed
		Allen Wilson

Important Drinking Water Definitions:

Action Level (AL) - The concentration of a contaminant that triggers treatment or other requirements that a water system shall follow.

Maximum Contaminant Level (MCL) - 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 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 of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) - 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.

Millirems per year (mrem/yr) - Measure of radiation absorbed by the body.

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.

Non-Detects (ND) - Laboratory analysis indicates that the constituent is not present.

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 (µg/L) - One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) or Nanograms per liter (ng/L) - One part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) or Picograms per liter (pg/L) - One part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

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

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

Threshold Odor Number (T.O.N.) - The greatest dilution of a sample with odor-free water that still yields a just-detectable odor.

Variations & Exemptions - ADEM or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Explanation of reasons for variance/exemptions

Based on a study conducted by ADEM with the approval of the EPA a statewide waiver for the monitoring of asbestos and dioxin was issued. Thus monitoring for these contaminants was not required.

The City of Jemison routinely monitors for contaminants in your drinking water according to Federal and State laws. Unless otherwise noted, the data presented in the following tables show the results of our monitoring period of January 1st to December 31st, 2021.

Table of Primary Drinking Water Contaminants

At high levels some primary contaminants are known to pose a health risks to humans. This table provides a quick glance of any primary contaminant detections.

CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED
Bacteriological			Chloramines (ppm)	4	ND
Total Coliform Bacteria	< 5%	ND	Chlorite (ppm)	1	ND
Turbidity (NTU)	TT	ND	Endothall (ppb)	100	ND
Fecal Coliform & E. coli	0	ND	Endrin (ppb)	2	ND
Radiological			Epichlorohydrin (ppb)	TT	ND
Beta particle and photon (mrem/yr)	4	ND	Glyphosate (ppb)	700	ND
Gross Alpha particle (pCi/L)	15	0.0+/-0.6	Heptachlor (ppt)	400	ND
Combined radium 226 & 228 (pCi/L)	5	1.0+/-0.5	Heptachlor Epoxide (ppt)	200	ND
Tritium (pCi/L)	20,000	ND	Hexachlorobenzene (ppb)	1	ND
Strontium 90 (pCi/L)	8	ND	Hexachlorocyclopentadiene (ppb)	50	ND
Uranium (ppb)	30	ND	Lindane (ppt)	200	ND
Inorganic			Methoxychlor (ppb)	40	ND
Antimony (ppb)	6	ND	Oxamyl [Vydate] (ppb)	200	ND
Arsenic (ppb)	10	ND	Polychlorinated Biphenyls (PCBs)(ppt)	500	ND
Asbestos (MFL)	7	ND	Pentachlorophenol (ppb)	1	ND
Barium (ppm)	2	ND	Picloram (ppb)	500	ND
Beryllium (ppb)	4	ND	Simazine (ppb)	4	ND
Cadmium (ppb)	5	ND	Toxaphene (ppb)	3	ND
Chromium (ppb)	100	ND	Benzene (ppb)	5	ND
Copper (ppm)	AL=1.3	0.013	Carbon Tetrachloride (ppb)	5	ND
Cyanide (ppb)	200	ND	Monochlorobenzene (ppb)	100	ND
Fluoride (ppm)	4	ND	Dibromochloropropane (ppt)	200	ND
Lead (ppb)	AL=15	ND	0-Dichlorobenzene (ppb)	600	ND
Mercury (ppb)	2	ND	Para-dichlorobenzene (ppb)	75	ND
Nickel (ppb)	100	ND	1,2-Dichloroethane (ppb)	5	ND
Nitrate (as N)(ppm)	10	0.28	1,1-Dichloroethylene (ppb)	7	ND
Nitrite (as N)(ppm)	1	ND	Cis-1,2-Dichloroethylene (ppb)	70	ND
Total Nitrate/Nitrite (ppm)	10	0.28	Trans-1,2-Dichloroethylene (ppb)	100	ND
Selenium (ppb)	50	ND	Dichloromethane (ppb)	5	ND
Sulfate (ppm)	500	4.47	1,2-Dichloropropane (ppb)	5	ND
Thallium (ppb)	2	ND	Ethylbenzene (ppb)	700	ND
Organic Chemicals			Ethylene Dibromide (EDB)(ppt)	50	ND
2,4-D (ppb)	70	ND	Styrene (ppb)	100	ND
2,4,5-TP (Silvex) (ppb)	50	ND	Tetrachloroethylene (ppb)	5	ND
Acrylamide (ppm)	TT	ND	1,2,4-Trichlorobenzene (ppb)	70	ND
Alachlor (ppb)	2	ND	1,1,1-Trichloroethane (ppb)	200	ND
Atrazine (ppb)	3	ND	1,1,2-Trichloroethane (ppb)	5	ND
Benzo(a)pyrene[PHAs] (ppt)	200	ND	Trichloroethylene (TCE)(ppb)	5	ND
Carbofuran (ppb)	40	ND	Total trihalomethanes (TTHM)(ppb)	80	2.6
Chlordane (ppb)	2	ND	Toluene (ppm)	1	ND
Dalapon (ppb)	200	ND	Vinyl Chloride (ppb)	2	ND
Di-(2-ethylhexyl)adipate (ppb)	400	ND	Chlorine (ppm)	4	2.10
Di(2-ethylhexyl)phtalates (ppb)	6	ND	Chlorine dioxide (ppb)	800	ND
Dinoseb (ppb)	7	ND	Bromate (ppb)	10	ND
Diquat (ppb)	20	ND	Total Organic Carbon (TOC)	TT	ND
Dioxin[2,3,7,8-TCDD] (ppq)	30	ND	Xylenes (Total)(ppm)	10	ND
			Haloacetic Acids (HAA5)(ppb)	60	ND

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.

Table of Secondary Contaminants

Contaminants	Range	Average	MCL	Contaminants	Range	Average	MCL
Aluminum	ND		PPM 0.2	Manganese	ND		PPM 0.05
Chloride	2.99		PPM 250	Silver	ND		PPM 0.1
Iron	ND		PPM 0.3	Total Dissolved Solids	68.0		PPM 500
Color	ND		PPM 15.0	Zinc	ND		PPM 5
Foaming Agents	ND		PPB 500	Copper	ND		PPM 1
Odor	ND		T.O.N. 3	Lead	ND		PPB .015

Table of Special Contaminants

Contaminants	Range	Average	MCL	Contaminants	Range	Average	MCL
Calcium	ND		PPM N/A	Sodium	1.29		PPM N/A
Carbon Dioxide	ND		PPM N/A	Sulfate	4.47		PPM 250
Magnesium	ND		PPM N/A	Specific, Conductance	ND		PPM N/A
pH	6.31		PPM N/A	Total Hardness (as CaCO3)	9.46		PPM N/A
Total Alkalinity	ND		PPM N/A	Temperature	ND		°C N/A

Table of Unregulated Drinking Water Contaminants

CONTAMINANT	AVERAGE	CONTAMINANT	AVERAGE	CONTAMINANT	AVERAGE
1,1 - Dichloropropene	ND	Chloroform	ND	1,2,4-Trichlorobenzene	ND
Chloromethane	ND	1,1,2,2-Tetrachloroethane	ND	Chlorodibromomethane	ND
1,1-Dichloroethane	ND	Dibromomethane	ND	1,2,3 - Trichlorobenzene	ND
Dicamba	ND	1,2,3 - Trichloropropane	ND	Dichlorodifluoromethane	ND
1,2,4 - Trimethylbenzene	ND	Dieldrin	ND	1,3 - Dichloropropane	ND
Hexachlorobutadiene	ND	1,3 - Dichloropropene	ND	Isopropylbenzene	ND
1,3,5 - Trimethylbenzene	ND	M-Dichlorobenzene	ND	2,2 - Dichloropropane	ND
Methomyl	ND	3-Hydroxycarbofuran	ND	MTBE	ND
Aldicarb	ND	Aldicarb Sulfone	ND	Aldicarb Sulfoxide	ND
Aldrin	ND	Bromobenzene	ND	Bromochloromethane	ND
Bromodichloromethane	ND	Bromoform	ND	Bromomethane	ND
Butachlor	ND	Carbaryl	ND	Chloroethane	ND
Metolachlor	ND	Metribuzin	ND	N-Propylbenzene	ND
N - Butylbenzene	ND	Naphthalene	ND	O-Chlorotoluene	ND
P-Chlorotoluene	ND	P-Isopropyltoluene	ND	Propachlor	ND
Sec - Butylbenzene	ND	Tert - Butylbenzene	ND	Fluorotrichloromethane	ND

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 pose a health risk. The EPA or ADEM requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

The table below lists all of the drinking water contaminants that we detected.

Table of Detected Drinking Water Contaminants

CONTAMINANT	MCLG	MCL	Range	Amount Detected	Likely Source of Contamination
Inorganic Contaminants (Sampling Date 2020-2021)					
Nitrate (as N)	10	10	ND - 0.28	0.28 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Nitrate & Nitrite	10	10	ND - 0.28	0.28 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
TTHM (Total trihalomethanes)	80	80	ND - 2.6	2.6 ppm	By-product of drinking water chlorination
HAA5 (Total haloacetic acids)	60	60	ND - ND	ND Ppm	By-product of drinking water chlorination
Sulfate	N/A	500	ND - 4.47	4.47 ppm	Naturally occurring in the environment
Secondary Contaminants (Sampling Date 2020)					
Chloride	N/A	250	ND - 2.99	2.99 ppm	Naturally occurring in the environment or as a result of agricultural runoff
Copper	N/A	1.0	ND - 0.087	0.087 ppm	Erosion of natural deposits; leaching from pipes

Special Contaminants		(Sampling Date 2020)						
pH	N/A	N/A	ND	-	6.31	6.31	SU	Naturally occurring in the environment or as a result of treatment with water additives
Sulfate	N/A	N/A	ND	-	4.47	4.47	ppm	Naturally occurring in the environment
Total Hardness (as CaCO ₃)	N/A	N/A	ND	-	9.46	9.46	ppm	Naturally occurring in the environment or as a result of treatment with water additives

General 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. **The City of Jemison** 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 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 radioactive material, and it can pick up substances resulting from the presence of animals or from human activities.

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. The EPA has determined that your water IS SAFE at these levels. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, 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.

Total Coliform: The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. To comply with the stricter regulation, we have increased the average amount of chlorine in the distribution system.

Some people may be more vulnerable to contaminants in drinking water than the general population. People who are immuno-compromised such as cancer patients undergoing chemotherapy, organ transplant recipients, HIV/AIDS positive or other immune system disorders, some elderly, and infants can be particularly at risk from infections. People at risk should seek advice about drinking water from their health care providers. EPA (Environmental Protection Agency)/CDC (Center of Disease Control) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline. All Drinking water, including bottled drinking water, may reasonably be expected to contain at least small amounts of some contaminants. 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).

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

We at the **City of Jemison** work 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.

For more information contact:

Mr. Jimmy Porter, Water Superintendent
City of Jemison
14 Padgett Lane
Jemison, Alabama 35085
Telephone: 205-688-4492
8:00 a.m. to 4:30 p.m. Monday – Friday