

General Information for Consumers

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 water poses a health risk.

Maximum Contaminant Levels (MCLs) are set at very stringent levels. 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.

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 activity. Contaminants that may be present in source water include:

- 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 water run-off, 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, storm water run-off, 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, 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 which limit the levels of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water.

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.

Information about Lead



Lead in drinking water is rarely found in source water but is primarily from materials and components associated with service lines and home plumbing. Your water system is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Use only water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is more likely to cause leaching of lead from plumbing materials. 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. These recommended actions are very important to the health of your family. Lead levels in your drinking water are likely to be higher if:

- Your home or water system has lead pipes, or
- Your home has faucets or fittings made of brass which contains some lead, or
- Your home has copper pipes with lead solder and you have naturally soft water, and
- Water often sits in the pipes for several hours.

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 (1-800-426-4791) or at www.epa.gov/safewater/lead.

DEFINITIONS

Action Level: the concentration of a contaminant that, if exceeded, triggers treatment or other requirements.

Coliform Absent (ca): laboratory analysis indicates that the contaminant is not present.

Disinfection byproducts (DBPs): formed when disinfectants react with bromide or natural organic matter present in the source water.

Distribution System Evaluation (DSE): a 4-quarter study to identify distribution system locations with high concentrations of DBPs.

Locational Running Annual Average (LRAA) – yearly average of all the DPB results at each specific sampling site

Maximum Contaminant Level (MCL): highest level of a contaminant that is allowed in drinking water.

Maximum Contaminant Level Goal: 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): highest level of a disinfectant allowed in drinking water

Micrograms per liter (ug/L): equivalent to parts per billion (ppb) since one liter of water is equal in weight to one billion micrograms.

Microsiemens per centimeter (µs/cm): unit of measurement for Specific Conductance.

Milligrams per liter (mg/L): equivalent to parts per million

Millirems per year (mrem/yr): a measure of radiation absorbed by the body.

Nephelometric Turbidity Unit (NTU): a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

90th Percentile: The 90th percentile is equal to or greater than 90% of the lead and copper values detected at your water system.

Not Detected (ND): laboratory analysis indicates that the constituent is not present above detection limits of lab equipment.

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

Parts per million (ppm) or Milligrams per liter (mg/l): corresponds to one minute in two years or a single penny in \$10,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/l): corresponds to one minute in 2,000,000,000 years, or a single penny in \$10,000,000,000,000.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l): corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

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

Running Annual Average (RAA): yearly average of all the DPB results at each specific sampling site in the distribution system.

Standard Units (S.U.): pH of water measures the water’s balances of acids and bases.

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

Unregulated Contaminants: contaminants for which the EPA has not established MCLs.

Variances & Exemptions (V&E): State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Reporting Non-compliance 2022: The Water Works of the City of Brewton incurred a Fluoride reporting non-compliance in 2022, resulting from a failure to submit the July 2022-September 2022 results to ADEM by October 10, 2022. The ADEM Admin. Code states, "the supplier of water shall report to the Department the results of any test, measurement or analysis within the first 10 days following the month in which the result is received or the first 10 days following the end of the required monitoring period as stipulated by the Department, whichever is shortest."

We did conduct monitoring for Fluoride; however, due to lab error the results were not submitted to ADEM by the deadline. Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail. If you have any questions about this non-compliance or your water quality, please contact Mr. Ray Madden at 251-809-1780.



The Water Works of The City of Brewton

1010A Douglas Ave.
P. O. Box 368
Brewton, AL 36427



2023 Annual Water Quality Report
(Testing Performed January through December 2022)



THE WATER WORKS OF
THE CITY OF BREWTON
PWSID AL0000555
1010 Douglas Avenue
Brewton, AL 36426
251-809-1780

The Water Works of the City of Brewton strives to provide a dependable and safe supply of water to all consumers. Sometimes accidents or natural disasters may hinder our efforts to supply your water; however, regardless of the time or weather, our water works personnel are on call and working diligently to keep your water flowing. We ask that all our customers help us protect our valuable water sources, which are the heart of our community, our way of life, and our children’s future.

Source	5 wells producing from the Lisbon aquifer
Treatment	Chlorination and fluoridation
Storage Capacity	6 storage tanks: 2.275 million gallons
Customers	Approximately 3800
Interconnections	McCall Water & East Brewton Water Works
Superintendent	Ray Madden
Water Operator	Charles Ray McLellan
Water Board Members	Willie R. Nicholson, Chairman
	Richard Lynn, Director
	Leslie G. Brown, Director
	Greg Wiggins, Director
	Beverly Maldonado, Director

Source Water Protection

Protecting the water supply at its source is the first step in achieving our goal of providing safe drinking water to its customers. In compliance with the Alabama Department of Environmental Management (ADEM), The Water Works of the City of Brewton developed a Wellhead Protection Plan that assists in protecting our water sources. This plan provides a Susceptibility Analysis, which classifies potential contaminants as high, moderate, or non-susceptible to contaminating the water source. A copy of the report is available in our office for review during normal business hours.

The Water Works of the City of Brewton routinely monitors our facilities. We regularly complete a water storage facility inspection, utilize a Bacteriological Monitoring Plan, and routinely test chlorine residual throughout our system. Please help us make these efforts worthwhile by protecting our source water. Carefully follow instructions on pesticides and herbicides you use for your lawn and garden, and properly dispose of household chemicals, paints, and waste oil. Taking these precautions can help protect your drinking water quality.

Questions

If you have any questions about this report or concerning your water utility, please contact Mr. Ray Madden at 251-809-1780. 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 the Wednesday following the first council meeting of each month, at 9:00 a.m. in the Utilities office at 1010 Douglas Avenue.

More information about contaminants to drinking water and potential health effects can be obtained by calling the EPA’s Safe Drinking Water Hotline at (1-800-426-4791).

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Monitoring Schedule and Results

Our water system monitors for contaminants according to a schedule assigned by the Alabama Department of Environmental Management (ADEM), using EPA approved methods and a State certified laboratory. This report contains results from the most recent monitoring which was performed in accordance with State and Federal regulatory schedule. Note: ADEM allows us to monitor for some contaminants less than annually because the concentrations of these contaminants do not change frequently.

Constituents Monitored		Date Monitored
Inorganic Contaminants		2022
Lead/Copper		2022
Microbiological Contaminants		current
Nitrates		2022
Radioactive Contaminants		2020
Synthetic Organic Contaminants (including herbicides and pesticides)		2022
Volatile Organic Contaminants		2022
Disinfection By-products		2022
PFAS Contaminants		2020

We are pleased to report that our drinking water meets or exceeds Federal and State standards. We have learned through our monitoring and testing that some constituents have been detected. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Maximum Contaminant Levels (MCL) are set at very stringent levels.

TABLE OF DETECTED DRINKING WATER CONTAMINANTS						
Contaminants	Violation Y/N	Level Detected	Unit Msmt	MCLG	MCL	Likely Source of Contamination
Alpha emitters	NO	1.57	PCi/l	0	15	Erosion of natural deposits
Combined radium	NO	5.1	PCi/l	0	5	Erosion of natural deposits
Barium	NO	ND-0.02	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion
Copper	NO	0.210* 0 > AL	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Ethylbenzene	NO	ND-0.94	ppb	700	700	Discharge from petroleum refineries
Fluoride	NO	0.58-1.2	ppm	4	4	Erosion; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	NO	0.002*	ppm	0	AL=0.015	Corrosion of household plumbing systems; erosion of natural deposits
Nitrate (as Nitrogen)	NO	ND-0.21	ppm	10	10	Fertilizer runoff; septic & sewage leaching; erosion
TTHM [Total trihalomethanes]	NO	annual 1.5-9.0	ppb	0	80	By-product of drinking water chlorination
HAA5 [Total haloacetic acids]	NO	annual ND-2.4	ppb	0	60	By-product of drinking water chlorination
Tetrachloroethylene	NO	ND-0.82	ppb	0	5	Leaching from PVC pipes; discharge from factories and dry cleaners
Xylenes	NO	ND-0.006	ppm	10	10	Discharge from petroleum factories; discharge from chemical factories
Unregulated Contaminants						
Chloroform	NO	ND-7.70	ppb	n/a	n/a	Naturally occurring in the environment or as a result of discharge or runoff
Bromodichloromethane	NO	ND-3.90	ppb	n/a	n/a	Naturally occurring in the environment or as a result of discharge or runoff
Chlorodibromomethane	NO	ND-1.50	ppb	60	n/a	Naturally occurring in the environment or as a result of discharge or runoff
Secondary Contaminants						
Aluminum	NO	ND-0.25	ppm	n/a	0.2	Erosion of natural deposits or as a result of treatment with water additives
Chloride	NO	5.0-6.6	ppm	n/a	250	Naturally occurring in the environment or as a result of discharge or runoff
Hardness	NO	38.7-108	ppm	n/a	n/a	Naturally occurring in the environment or as a result of water treatment
Iron	NO	ND-0.24	ppm	n/a	0.30	Naturally occurring; erosion of natural deposits; leaching from pipes
pH	NO	7.4-7.7	S.U.	n/a	n/a	Naturally occurring in the environment or as a result of water treatment
Sodium	NO	18.1-35.8	ppm	n/a	n/a	Naturally occurring in the environment
Total Dissolved Solids	NO	185-207	ppm	n/a	500	Naturally occurring in the environment or as a result of water treatment

* Figure shown is 90th percentile and # of sites > Action Level = 0

Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that were used in manufacturing and in other industrial and consumer applications. Below is a list of PFAS contaminants for which our system monitored in 2020 and the results of that monitoring. PFAS contaminants were not detected in our drinking water.

PFAS Contaminants					
Contaminant	Unit	Level Detected	Contaminant	Unit	Level Detected
11Cl-PF3OUdS (11-chloroicosaffluoro-3-oxaundecane-1-sulfonic acid)	ppb	ND	Perfluorheptanoic acid	ppb	ND
9Cl-PF3ONS (9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid)	ppb	ND	Perfluorohexanesulfonic acid	ppb	ND
ADONA (4,8-dioxo-3H-perfluorononanoic acid)	ppb	ND	Perfluorononanoic acid	ppb	ND
HFPO-DA (Hexafluoropropylene oxide dimer acidA)	ppb	ND	Perfluorooctanesulfonic acid	ppb	ND
NEFOSAA (N-ethylperfluorooctanesulfonamidoacetic acid)	ppb	ND	Perfluorooctanoic acid	ppb	ND
NMeFOSAA (N-methylperfluorooctanesulfonamidoacetic acid)0	ppb	ND	Perfluorotetradecanoic acid	ppb	ND
Perfluorobutanesulfonic acid	ppb	ND	Perfluorotridecanoic acid	ppb	ND
Perfluorodecanoic acid	ppb	ND	Perfluoroundecanoic acid	ppb	ND
Perfluorohexanoic acid	ppb	ND	Total PFAS	ppb	ND
Perfluorododecanoic acid	ppb	ND			

Below is a table of contaminants for which the Environmental Protection Agency and the Alabama Department of Environmental Management require testing. These contaminants were not detected in your drinking water unless they are also listed in the Detected Drinking Water Contaminants table elsewhere in this report.

STANDARD LIST OF PRIMARY DRINKING WATER CONTAMINANTS					
Contaminant	MCL	Unit of Msmt	Contaminant	MCL	Unit of Msmt
Bacteriological Contaminants					
Total Coliform Bacteria	<5%	present/absent	trans-1,2-Dichloroethylene	100	ppb
Fecal Coliform and E. coli	0	present/absent	Dichloromethane	5	ppb
Turbidity	TT	NTU	1,2-Dichloropropane	5	ppb
Cryptosporidium	TT	Calc.organisms/l	Di (2-ethylhexyl)adipate	400	ppb
Radiological Contaminants					
			Di (2-ethylhexyl)phthalate	6	ppb
			Dinoseb	7	ppb
Beta/photon emitters	4	mrem/yr	Dioxin [2,3,7,8-TCDD]	30	ppq
Alpha emitters	15	pCi/l	Diquat	20	ppb
Combined radium	5	pCi/l	Endothall	100	ppb
Uranium	30	pCi/l	Endrin	2	ppb
Inorganic Chemicals					
Antimony	6	ppb	Epichlorohydrin	TT	TT
Arsenic	10	ppb	Ethylbenzene	700	ppb
Asbestos	7	MFL	Ethylene dibromide	50	ppt
Barium	2	ppm	Glyphosate	700	ppb
Beryllium	4	ppb	Heptachlor	400	ppt
Cadmium	5	ppb	Heptachlor epoxide	200	ppt
Chromium	100	ppb	Hexachlorobenzene	1	ppb
Copper	AL=1.3	ppm	Hexachlorocyclopentadiene	50	ppb
Cyanide	200	ppb	Lindane	200	ppt
Fluoride	4	ppm	Methoxychlor	40	ppb
Lead	AL=15	ppb	Oxamyl [Vydate]	200	ppb
Mercury	2	ppb	Polychlorinated biphenyls	0.5	ppb
			Pentachlorophenol	1	ppb
Nitrate	10	ppm	Picloram	500	ppb
Nitrite	1	ppm	Simazine	4	ppb
Selenium	.05	ppm	Styrene	100	ppb
Thallium	.002	ppm	Tetrachloroethylene	5	ppb
Organic Contaminants					
2,4-D	70	ppb	Toluene	1	ppm
Acrylamide	TT	TT	Toxaphene	3	ppb
Alachlor	2	ppb	2,4,5-TP(Silvex)	50	ppb
Benzene	5	ppb	1,2,4-Trichlorobenzene	.07	ppm
Benzo(a)pyrene [PAHs]	200	ppt	1,1,1-Trichloroethane	200	ppb
Carbofuran	40	ppb	1,1,2-Trichloroethane	5	ppb
Carbon tetrachloride	5	ppb	Trichloroethylene	5	ppb
Chlordane	2	ppb	Vinyl Chloride	2	ppb
Chlorobenzene	100	ppb	Xylenes	10	ppm
Dalapon	200	ppb	Disinfectants & Disinfection Byproducts		
Dibromochloropropane	200	ppt	Chlorine	4	ppm
1,2-Dichlorobenzene	1000	ppb	Chlorine Dioxide	800	ppb
1,4-Dichlorobenzene (para)	75	ppb	Chloramines	4	ppm
o-Dichlorobenzene	600	ppb	Bromate	10	ppb
1,2-Dichloroethane	5	ppb	Chlorite	1	ppm
1,1-Dichloroethylene	7	ppb	HAA5 [Total haloacetic acids]	60	ppb
cis-1,2-Dichloroethylene	70	ppb	TTHM [Total trihalomethanes]	80	ppb
LIST OF SECONDARY CONTAMINANTS					
Alkalinity, Total (as CA, Co ₃)	Alkalinity, Total (as CA, Co ₃)	Alkalinity, Total (as CA, Co ₃)	Alkalinity, Total (as CA, Co ₃)	Alkalinity, Total (as CA, Co ₃)	
Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	
Calcium, as Ca	Calcium, as Ca	Calcium, as Ca	Calcium, as Ca	Calcium, as Ca	
Chloride	Chloride	Chloride	Chloride	Chloride	
Color	Color	Color	Color	Color	
LIST OF UNREGULATED CONTAMINANTS					
Aldicarb	Chloroethane		Hexachlorobutadiene	Propachlor	
Aldicarb Sulfone	Chloroform		3-Hydroxycarbofuran	N-Propylbenzene	
Aldicarb Sulfoxide	Chloromethane		Isopropylbenzene	Propachlor	
Aldrin	O-Chlorotoluene		p-Isopropyltoluene	1,1,1,2-Tetrachloroethane	
Bromoacetic Acid	P-Chlorotoluene		M-Dichlorobenzene	1,1,2,2-Tetrachloroethane	
Bromobenzene	Dibromochloromethane		Methomyl	Tetrachloroethene	
Bromochloromethane	Dibromomethane		Methomyl	Trichloroacetic Acid	
Bromodichloromethane	1,1-Dichloroethane		Methylene chloride	1,2,3-Trichlorobenzene	
Bromoform	1,3-Dichloropropane		Methyl tert-butyl ether	Trichloroethene	
Bromomethane	2,2-Dichloropropane		Metolachlor	Trichlorofluoromethane	
Butachlor	1,1-Dichloropropene		Metribuzin	1,2,3-Trichloropropane	
N-Butylbenzene	1,3-Dichloropropene		MTBE	1,2,4-Trimethylbenzene	
Sec-Butylbenzene	Dicamba		Naphthalene	1,3,5-Trimethylbenzene	
Tert - Butylbenzene	Dichlorodifluoromethane		1-Naphthol		
Carbaryl	Dieldrin		Paraquat		