

## Blount County Water Authority

### 2022 Annual Drinking Water Quality Report

Blount County Water Authority is pleased to provide you with this year's Annual Quality Water Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to maintain and continually improve the water you receive and to protect our water supply.

Our water is groundwater drawn from the Warren Spring which comes from the Pride Mountain Aquifer, and we purchase water from Douglas Water Authority. Each water system must complete a Source Water Assessment Program (SWAP). The SWAP is comprised of four distinct activities: delineation of the source water assessment area, contaminant inventory, susceptibility analysis and public awareness. Blount County Water Authority has completed each requirement component of the source water assessment and the Alabama Department of Environmental Management (ADEM) has approved the plan. The findings of the SWAP are available for your review at the office in Cleveland. To provide safe drinking water chlorine is used as a disinfectant.

Blount County Water Authority is delighted to report that our drinking water is safe and meets federal and state requirements. If you have any questions about this report, Douglas Water Authority's report, or concerning your water utility. Please contact Tim Faulkner at (205) 625-5100. 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 second Tuesday of each month at 12:00 p.m. at the office located on 18 Arena Drive in Cleveland, AL.

This table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2022. It is important to remember that the presence of these constituents does not necessarily pose a health risk. This table has many abbreviations you might not be familiar with. To help you better understand these abbreviations we have provided the following definitions:

- 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 ug/l – micrograms per liter – 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 a single penny in \$10,000,000,000,000.
- Picocuries per liter (pCi/l) – picocuries per liter is a measure of radioactivity in water.
- Millirems per years (mrem/yr) – measure of radiation absorbed by the body.
- Nephelometric Turbidity Units (NTU) – a measure of the clarity of water. Turbidity more than 5 NTU is just noticeable to the average person.
- Maximum Contaminant Level – 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 – 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 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.

- 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.

- MFL – Million Fibers per Liter.

- AL – Action Level – the concentrations of a contaminant, which, if exceeded, triggers, treatment, or other requirements, which a water system must follow.

- TT – Treatment Technique – A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

- Variances and Exemptions – The Department or EPA permission not to meet and MCL or a treatment technique under certain conditions.

**Table of Detected Contaminants**

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
<b>Microbiological Contaminants</b>						
Turbidity	No	<0.05	NTU	N/A	TT	Soil runoff
<b>Radioactive Contaminants</b>						
Alpha Emitters (2021)	No	ND	pCi/l	N/A	15	Erosion of natural deposits
Combined Radium (2021)	No	1.0	pCi/l	N/A	5	Erosion of natural deposits
<b>Inorganic Contaminants</b>						
Barium	No	0.018	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chloride	No	5.92	ppb	N/A	2.5	By-product of drinking water chlorination
Chlorine	No	1.40	ppm	N/A	4	Water additive used to control microbes
Copper	No	0.62 >AL	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	No	5.0	ppb	N/A	AL=15	Corrosion of household plumbing systems; erosion of natural deposits
Nitrate	No	1.30	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Volatile Organic Contaminants</b>						
Total Trihalomethanes (TTHM)	No	15.7	ppb	N/A	80	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	No	5.79	ppb	N/A	60	By-product of drinking water chlorination
Total Organic Carbon (TOC)	No	0.20	ppm	N/A	TT	Naturally present in the environment
Chlorine	No	2.0	ppm	4	4	Water additive used to control microbes
Methylene Chloride	No	1.53	ppb	NA	5	Discharge from petroleum factories; Discharge from chemical factories
Bromodichloromethane	No	2.30	ppb	NA	NA	
Dibromochloromethane	No	2.80	ppb	NA	NA	
Chloroform	No	5.70	ppb	NA	NA	

**Table of Primary Contaminants**

At elevated levels, some primary contaminants are known to pose a health risk to humans.

This table provides a quick glance of any primary contaminant detections.

Contaminant	MCL	Amount Detected	Contaminant	MCL	Amount Detected
<b>Bacteriological</b>			Endrin	2 ppb	ND
Total Coliform Bacteria	>5%	ND	Epichlorohydrin	TT	ND
Turbidity	5.0 NTU	<0.05	Glyphosate	700 ppb	ND
Fecal coliform and <i>E. coli</i>	TT	ND	Total Organic Carbon (TOC)	TT (ppm)	0.20
<b>Radiological</b>			Heptachlor	400 ppt	ND
Beta/Photon Emitters (2021)	4	ND	Heptachlor epoxide	200 ppt	ND
Alpha Emitters (2021)	15	ND	Hexachlorobenzene	1 ppb	ND
Combined Radium (2021)	5	1.0	Hexachlorocyclopentadiene	50 ppb	ND
<b>Inorganic</b>			Lindane	200 ppt	ND
Antimony	6 ppb	<1.0	Methoxychlor	40 ppb	ND
Arsenic	10 ppb	<1.0	Oxamyl (Vydate)	200 ppb	ND
Asbestos (MFL)	7	ND	PCBs	500 ppt	ND
Barium	2 ppm	0.018	Pentachlorophenol	1 ppb	ND
Beryllium	4 ppb	<1.0	Picloram	500 ppb	ND
Cadmium	5 ppb	<1.0	Simazine	4 ppb	ND
Chromium	100 ppb	<1.0	Toxaphene	3 ppb	ND
Copper	AL=1.3 ppm	0.62	Benzene	5 ppb	ND
Cyanide	200 ppb	<20.0	Carbon Tetrachloride	5 ppb	ND
Fluoride	4 ppm	<0.20	Chlorobenzene	100 ppb	ND
Lead	AL=15 ppb	5.0	Dibromochloropropane	200 ppt	ND
Mercury	2 ppb	<1.0	o-Dichlorobenzene	600 ppb	ND
Nickel	100 ppb	0.004	p-Dichlorobenzene	75 ppb	ND
Nitrate	10 ppm	1.30	1,2-Dichloroethane	5 ppb	ND
Nitrite	1 ppm	<0.10	1,1-Dichloroethylene	7 ppb	ND
Selenium	50 ppb	<1.0	cis-1,2-Dichloroethylene	70 ppb	ND
Thallium	2 ppb	<1.0	trans-1,2-Dichloroethylene	100 ppb	ND
<b>Organic Chemicals</b>			Dichloromethane	5 ppb	ND
2,4-D	70 ppb	ND	1,2-Dichloropropane	5 ppb	ND
2,4,5-TB (Silvex)	50 ppb	ND	Ethylbenzene	700 ppb	ND
Acrylamide	TT	ND	Ethylene dibromide	50 ppt	ND
Alachlor	2 ppb	ND	Styrene	100 ppb	ND
Atrazine	3 ppb	ND	Tetrachloroethylene	5 ppb	ND
Benzo(a)pyrene (PAHs)	200 ppt	ND	1,2,4-Trichlorobenzene	70 ppb	ND
Carbofuran	40 ppb	ND	1,1,1-Trichloroethane	200 ppb	ND
Chlordane	2 ppb	ND	1,1,2-Trichloroethane	5 ppb	ND
Dalapon	200 ppb	ND	Trichloroethylene	5 ppb	ND
Di-(2-ethylhexyl) adipate	400 ppb	ND	TTHM	80 ppb	<2.0 - 9.30
Di-(2-ethylhexyl) phthalates	6 ppb	ND	Haloacetic Acids (HAA5)	60 ppb	<5.0 - 14.0
Dinoseb	7 ppb	ND	Toluene	1 ppm	ND
Diquat	20 ppb	ND	Vinyl Chloride	2 ppb	ND
Dioxin (2,3,7,8-TCDD)	30 ppt	ND	Xylenes (2021)	10 ppm	0.00382
Endothall	100 ppb	ND			

Unregulated contaminants have no MCL set by the EPA or ADEM but are tested for in your drinking water. These contaminants pose many of the same health risk as the regulated contaminants but their presence in most drinking water is not frequent enough to warrant regulation. Unregulated contaminants are tested to provide historical data on components presence in drinking water over time.

Test Results – Unregulated Contaminant Table					
Monitoring Results in ppb					
CONTAMINANT	Low Result	High Result	CONTAMINANT	Low Result	High Result
1,1 – Dichloropropene	ND	ND	Chloroform	ND	5.7
1,1,1,2-Tetrachloroethane	ND	ND	Chloromethane	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	Dibromochloromethane	1.40	2.80
1,1-Dichloroethane	ND	ND	Dibromomethane	ND	ND
1,2,3 – Trichlorobenzene	ND	ND	Dicamba	ND	ND
1,2,3 – Trichloropropane	ND	ND	Dichlorodifluoromethane	ND	ND
1,2,4 – Trimethylbenzene	ND	ND	Dieldrin	ND	ND
1,3 – Dichloropropane	ND	ND	Hexachlorobutadiene	ND	ND
1,3 – Dichloropropene	ND	ND	Isopropylbenzene	ND	ND
1,3,5 – Trimethylbenzene	ND	ND	M-Dichlorobenzene	ND	ND
2,2 – Dichloropropane	ND	ND	Methomyl	ND	ND
3-Hydroxycarbofuran	ND	ND	MTBE	ND	ND
Aldicarb	ND	ND	Metolachlor	ND	ND
Aldicarb Sulfone	ND	ND	Metribuzin	ND	ND
Aldicarb Sulfoxide	ND	ND	N - Butylbenzene	ND	ND
Aldrin	ND	ND	Naphthalene	ND	ND
Bromobenzene	ND	ND	N-Propylbenzene	ND	ND
Bromochloromethane	ND	ND	O-Chlorotoluene	ND	ND
Bromodichloromethane	ND	2.3	P-Chlorotoluene	ND	ND
Bromoform	ND	ND	P-Isopropyltoluene	ND	ND
Bromomethane	ND	ND	Propachlor	ND	ND
Butachlor	ND	ND	Sec - Butylbenzene	ND	ND
Carbaryl	ND	ND	Tert - Butylbenzene	ND	ND
Chloroethane	ND	ND	Trichlorofluoromethane	ND	ND

In addition to the primary contaminants, we monitor regularly for some of the following secondary and unregulated contaminants as required by ADEM.

Secondary Contaminants			
Monitoring results in ppb			
CONTAMINANT	MCL	AMOUNT DETECTED	VIOLATION Y/N
Aluminum (ppm)	2.0	0.031	N
Calcium (ppm)	NA	56.1	N
Carbon Dioxide (ppm)	NA	8.0	N
Chloride (ppm)	250	5.92	N
Color (units)	15	<10	N
Conductance (umhos)	NA	270	N
Hardness (ppm CaCO3)	NA	152	N
Iron (ppm)	0.3	ND	N
Magnesium (ppm)	NA	3.49	N
Manganese (ppm)	0.5	ND	N
pH (std. units)	NA	7.20	N
Silver (ppm)	0.1	ND	N
Sodium (ppm)	NA	5.90	N
Sulfate (ppm)	250	3.77	N
Total Alkalinity (ppm CaCO3)	NA	139	N
Total Dissolved Solids (ppm)	500	178	N
Zinc (ppm)	5	ND	N

The fourth Unregulated Contaminant Rule (UCMR4) was initiated by EPA in 2016. UCMR4 requires the monitoring of 10 cyanotoxins and 20 additional unregulated chemical contaminants. These contaminants pose many of the same health risk as the regulated contaminants but their presence in most drinking water is not frequent enough to warrant regulation. Unregulated contaminants are tested to provide historical data on components present in drinking water over time.

Fourth Unregulated Contaminant Monitoring (UCMR4)			
Monitoring results in ppb			
CONTAMINANT	DETECTED	CONTAMINANT	DETECTED
Germanium	ND	Tribufos	ND
Manganese	ND	1-butanol	ND
Alpha-hexachlorocyclohexane	ND	2-methoxyethanol	ND
Chlorpyrifos	ND	2-propen-1-ol	ND
Dimethipin	ND	Butylated hydroxyanisole	ND
Ethoprop	ND	O-toluidine	ND
Oxyfluorfen	ND	Quinoline	ND
Profenofos	ND	Total Organic Carbon (TOC)	2950
Tebuconazole	ND	HAA9 Group	2.3
Total permethrin (cis- & trans-)	ND	Bromide	16,600
Bromochloroacetic Acid	0.76		
Bromodichloroacetic Acid	ND	Monobromoacetic Acid	ND
Chlorodibromoacetic Acid	ND	Monochloroacetic Acid	ND
Dibromoacetic Acid	ND	Tribromoacetic Acid	ND
Dichloroacetic Acid	6.0	Trichloroacetic Acid	6.0

As you can see from the table, our system had no violations of allowable limits of contaminants in your drinking water. We are proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

Blount County Water Authority is required to monitor and report your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether your drinking water meets health standards. BCWA incurred a Lead Copper reporting non-compliance due to a failure to submit the June to September 2022 Lead Copper monitoring results by October 10, 2022, per ADEM Admin. Code r. 335-7-2-.20(1)(a).

Appropriate follow-up monitoring and reporting measures have been taken. BCWA has monitored and reported for the required contaminants properly since the non-compliance occurred. Should you have any questions concerning these non-compliances or monitoring and reporting requirements, please contact us at (205) 625-5100.

Douglas Water Authority (Wholesale provider to BCWA) incurred monitoring non-compliances due to a failure to monitor for Inorganic Compounds (IOC), Radiological Compounds (RAD), and Synthetic Organic Compounds (SOC) during the January 2020 – December 2022 time period.

Note from Douglas Water Authority (DWA):

DWA was 24 days late in gathering water samples for the IOC, RAD, and SOC compounds as reported above. We thought, in the best interests of our customers, we should report that there were no maximum contaminant levels exceeded on these tests. We apologize for our tardiness in gathering these samples. Rest assured that procedures have been re-evaluated to resolve any potential reporting violations in the future. Should you have any questions concerning this non-compliance or monitoring requirements, please contact David Smith (General Manager) at (256) 593-5010.

All drinking water, including bottled water, may be expected to contain at least small amounts of some contaminants. The presence of these does not necessarily indicate that 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 (800-426-4791).

Blount County Water Authority wants you to be aware that there is not a problem with lead in your 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. Blount County Water Authority 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 and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of 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.

Blount County Water Authority also tests for pathogens, such as *Cryptosporidium* and *Giardia*. These pathogens can enter water from animal or human waste. All test results were well within state and federal standards. This language does *not* indicate the presence *Cryptosporidium* of in our drinking water.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink two 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.

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).

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 is not required. EPA and the Alabama Department of Environmental Management (ADEM) have mandated that each water system will provide an annual quality report to consumers. This report is designed to inform consumers about the quality of water from their water supplier. Blount County Water Authority strives to provide a dependable and safe supply of water to all consumers. We ask that you be considerate when accidents or mother nature hinder our efforts to supply your water. Regardless of the time, or weather, BCWA personnel are on call and working to keep your water flowing. Please help us protect our water sources, which are a vital part of our lives, and our children's future.

**Blount County Water Authority**

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