2024 Annual Water Quality Report
(Monitoring Performed January through December 2023)

MONTEVALLO WATER WORKS AND SEWER BOARD

PWSID AL0001160
613 Valley St
Montevallo, AL 35115
Phone 205-665-9045

Office hours: Monday – Friday, 8:00 am to 4:00 pm

We are pleased to present to you this year's Annual Water Quality Report. Our constant goal is to provide you with a safe and dependable supply of drinking water. We are committed to ensuring the quality of your water.

Water Sources	Two groundwater wells producing from the Cambrian-Ordivician aquifer	
	One spring producing from the Cambrian Brierfield dolomite aquifer	
	Purchased groundwater from Chilton County Water Authority	
Number of Customers	Approximately 3650	
Water Treatment	Chlorination for disinfection	
Storage Capacity	Five tanks with a total capacity of 4,700,000 gallons	
Additional Connections	Provide water to University of Montevallo	
	Interconnected with Alabaster Water, Calera Water, and Chilton County	
Board Members	Roger Wheeler, Chairman	Sonya Swords, Member
	Brad Davis, Member	Glenn Stewart, Member
	Lelia Mitchell, Member	
Board Meetings	Second Wednesday of each month at 9:00 a.m. at the Montevallo Water Office	

Source Water Assessment

In compliance with the Alabama Department of Environmental Management (ADEM), The Montevallo Water Works and Sewer Board has developed a Source Water Assessment plan that assists in protecting our water sources. This plan provides additional information such as potential sources of contamination. The report includes a susceptibility analysis, which classifies potential contaminants as high, moderate, or non-susceptible (low) to contaminating the water source. A copy of the report is available in our office for review during normal business hours, or you may obtain a copy for a nominal fee.

Please help us make this effort 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.

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 or at *www.epa.gov/safewater/lead.*

General Information

All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. MCL's, defined in a List of Definitions in this report, 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 amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water.

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/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 (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 was not required.

Your source water has also been tested for pathogens, such as *Cryptosporidium* and *Giardia*. *Cryptosporidium* and *Giardia* are common in the environment, including in surface water, and the finding of an occasional oocyst in unfinished water is not unusual. These pathogens can enter the water from animal or human waste. All test results were well within state and federal standards. For people who may be immuno-compromised, information is available from the Environmental Protection Agency online at www.epa.gov/safewater or from the Safe Drinking Water Hotline at 800-426-4791. *Cryptosporidium* and *Giardia have not been detected in our finished drinking water.*

Questions?

If you have any questions about this report or concerning your water utility, please contact Michael Harmon, Manager. 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 Wednesday of each month at 9:00 a.m. at the Montevallo Water Works and Sewer Board office, 613 Valley Street. To report water outage or leaks after hours, on weekends, or holidays, please call Montevallo Water at 205-665- 9045. 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).

Monitoring Schedule and Results

Your water sources are routinely monitored for contaminants according to Federal and State regulations. The Alabama Department of Environmental Management (ADEM) allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. This report contains results from the most recent monitoring which was performed in accordance with the regulatory schedule.

Constituents Monitored	Montevallo	Chilton
Inorganic Contaminants	2022	2022
Lead/Copper	2022	2023
Microbiological Contaminants	current	current
Nitrates	2023	2023
Radioactive Contaminants	2019	2019
Synthetic Organic Contaminants (including herbicides and pesticides)	2021	2022
Volatile Organic Contaminants	2023	2023
Disinfection By-products	2023	2023
Cryptosporidium	2023	Not Required
Unregulated Contaminant Rule 4 (UCMR4) Contaminants	Not Required	2019
PFAS Contaminants	2023	2022

We have learned through our monitoring and testing that some constituents have been detected. We are pleased to report that our drinking water meets federal and state requirements.

DETECTED DRINKING WATER CONTAMINANTS							
Contaminants	**Violation Y/N**	**Montevallo**	**Chilton County**	**Unit Msmt**	**MCLG**	**MCL**	**Likely Source of Contamination**
Alpha emitters	NO	3.4	1.8	PCi/l	0	15	Erosion of natural deposits
Radium 228 (combined radium)	NO	ND	1.1	PCi/l	0	5	Erosion of natural deposits
Barium	NO	0.01-0.02	0.02-0.14	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper	NO	0170 * 0 > AL	0.092 * 0 > AL	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from preservatives
Fluoride	NO	ND	ND-0.30	ppm	4	4	Erosion; water additive which promotes strong teeth
Lead	NO	0.004 * 0 > AL	ND	ppm	0	AL=0.015	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	NO	0.73-1.8	ND-0.51	ppm	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Toluene	NO	ND-0.001	ND	ppm	1	1	Discharge from petroleum factories
TTHM [Total trihalomethanes]	NO	Annual 17.3-18.8	LRAA 28.5 (ND-	ppb	0	80	By-product of drinking water chlorination
HAA5 [Total haloacetic acids]	NO	Annual 7.4-14.0	LRAA 4.18 (ND-	ppb	0	60	By-product of drinking water chlorination
Unregulated Contaminants							
Chloroform	NO	1.20-6.60	ND	ppb	none	none	Naturally occurring; industrial discharge; agricultural runoff
Bromodichloromethane	NO	ND-5.90	ND	ppb	none	none	Naturally occurring; industrial discharge; agricultural runoff
Chlorodibromomethane	NO	ND-4.10	ND	ppb	none	none	Naturally occurring; industrial discharge; agricultural runoff
Secondary Contaminants							
Aluminum	NO	ND	ND-0.04	ppm	n/a	0.2	Erosion; treatment with water additives
Chloride	NO	2.8-5.3	3.3-10.1	ppm	none	250	Naturally occurring; agricultural runoff
Hardness	NO	221-289	53.2-154	ppm	none	none	Naturally occurring; treatment with water additives
Iron	NO	ND	ND-0.06	ppm	n/a	0.30	Naturally occurring; erosion; leaching from pipes
Manganese	NO	ND	ND-0.05	ppm	n/a	0.05	Erosion of natural deposits; leaching from pipes
pH	NO	7.1-7.9	7.3-7.7	S.U.	none	none	Naturally occurring; treatment with water additives
Sodium	NO	ND-2.5	2.3-4.8	ppm	none	none	Naturally occurring in the environment
Sulfate	NO	4.2-15.8	5.3-11.9	ppm	none	250	Naturally occurring; industrial discharge; agricultural runoff
Total Dissolved Solids	NO	215-289	72.0-149	ppm	none	500	Naturally occurring; industrial discharge; agricultural runoff

* Figure shown is 90th percentile of sample sites and number of sites exceeding the Action Level (AL) = 0

PFAS Contaminants: Below is a list of PFAS contaminants for which our water sources were monitored in 2022 and 2023. *For more information on PFAS contaminants, please consult [www.epa.gov/pfas.](www.epa.gov/pfas)*

PFAS Contaminants (in ppt)											
Abbrev.	**Contaminant**	**MCLG**	**MCL**	**2022-2023 Montevallo Detected**	**2022 Chilton Detected**	**Abbrev.**	**Contaminant**	**MCLG**	**MCL**	**2022-2023 Montevallo Detected**	**2022 Chilton Detected**
11Cl-PF3OUdS	11Cl-PF3OUdS (11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid)	--	--	ND	ND	PFDoA	Perfluorododecanoic acid	--	--	ND	ND
9Cl-PF3ONS	9Cl-PF3ONS (9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid)	--	--	ND	ND	PFHpA	Perfluoroheptanoic acid	--	--	ND	ND
ADONA	ADONA (4,8-dioxa-3H-perfluorononanoic acid)	--	--	ND	ND	PFHxS	Perfluorohexanesulfonic acid	10	10	2.32-5.89	ND
HFPO-DA	HFPO-DA (Hexafluoropropylene oxide dimer acidA)	10	10	ND	ND	PFNA	Perfluorononanoic acid	10	10	ND	ND
NEtFOSAA	NEtFOSAA (N-ethylperfluorooctanesulfonamidoacetic acid)	--	--	ND	ND	PFOS	Perfluorooctanesulfonic acid	0	4	5.88-12.9	ND
NMeFOSAA	NMeFOSAA (N-methylperfluorooctanesulfonamidoacetic acid	--	--	ND	ND	PFOA	Perfluorooctanoic acid	0	4	ND-2.85	ND
PFBS	Perfluorobutanesulfonic acid	--	--	ND	ND	PFTeDA	Perfluorotetradecanoic acid	--	--	ND	ND
PFDA	Perfluorodecanoic acid	--	--	ND	ND	PFTrDA	Perfluorotridecanoic acid	--	--	ND	ND
PFHxA	Perfluorohexanoic acid	--	--	ND-2.67	ND	PFUnA	Perfluoroundecanoic acid	--	--	ND	ND

Note: In April 2024, the EPA finalized a Primary Drinking Water Regulation establishing individual MCLGs and MCLs for five (5) PFAS contaminants in drinking water. PFOA, PFOS, PFHxS, PFNA, & HFPODA. Mixtures containing 2 or more of PFHxS, PFNA, HFPO-DA, & PFBS were assigned MCL of 1 (unitless) Hazard Index.

UCMR4 – Chilton County: The Fourth Unregulated Contaminant Monitoring Rule (UCMR4) requires some systems to monitor for 30 unregulated contaminants during January 2018 through December 2020 on an assigned schedule. The table below shows the results of our monitoring during 2019.

UCMR 4 Contaminants					
Contaminants (Entry Point)	**Unit Msmt**	**Level Detected**		**Unit Msmt**	**Level Detected**
Germanium	ppb	ND	Total permethrin (cis- & trans-)	ppb	ND
Manganese	ppb	ND-3.5	Tribufos	ppb	ND
Alpha-hexachlorocyclohexane	ppb	ND	1-butanol	ppb	ND
Chlorpyrifos	ppb	ND	2-methoxyethanol	ppb	ND
Dimethipin	ppb	ND	2-propen-1-ol	ppb	ND
Ethoprop	ppb	ND	Butylated hydroxyanisole	ppb	ND
Oxyfluorfen	ppb	ND	O-toluidine	ppb	ND
Profenofos	ppb	ND	Quinoline	ppb	ND
Tebuconazole	ppb	ND			
Distribution Samples					
HAA9	ppb	ND-3.5	Total organic carbon (TOC)	ppb	ND
HAA6Br	ppb	ND	Bromide	ppb	ND
HAA5	ppb	ND-2.7			

Non-compliance 2023 – Montevallo

2023 Two Cryptosporidium (LT2) Reporting Non-compliances Notice: The Montevallo Water Works and Sewer Board incurred two *cryptosporidium* reporting non-compliances resulting from a failure to report:

- June 2023 results by July 10, 2023
- July 2023 results by August 10, 2023

In both instances, we did monitor for Cryptosporidium on time; however, due to lab error the results were not reported by the 10th of the month following the sample period.

Questions: If you have any questions about the above non-compliances or about our water quality, contact Michael Harmon, Manager, at the water office at 613 Valley St in Montevallo or by telephone at 205-665-9045.

DEFINITIONS

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

Coliform Absent (ca)- Laboratory analysis indicates that the contaminant is not present.

Cryptosporidium- a microscopic parasite that can cause disease, mainly diarrhea, if swallowed. Disinfection byproducts (DBPs)- are formed when disinfectants used in water treatment plants react with bromide and/or natural organic matter (i.e., decaying vegetation) present in the source water. Different disinfectants produce different types or amounts of disinfection byproducts. Disinfection byproducts for which regulations have been established include trihalomethanes (TTHM), haloacetic acids (HAA5), bromate, and chlorite.

Initial Distribution System Evaluation (IDSE)-a one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs).

Locational Running Annual Average (LRAA)-yearly average of all the DPB results at each specific sampling site in the distribution system. The highest distribution site LRAA is reported in the Table of Detected Contaminants.

Maximum Contaminant Level-(mandatory language) The Maximum Allowed (MCL) is the highest level of a contaminant that is allowed in drinking water. MCL5 are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal-(mandatory language) 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 Millirems per year (mremlyr)-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.

Non-Detects (ND)- laboratory analysis indicates that the constituent is not present above detection limits of lab equipment.

Not Reported (NR)-laboratory analysis, usually Secondary Contaminants, not reported by water system. EPA recommends secondary standards to water systems but does not require systems to comply,

Parts per billion (ppb) or Micrograms per liter (pg/l)-one part per billion 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)-one part per million corresponds to one minute in two years or a single penny in $10,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/1)-one part per quadrillion 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/1)-one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.

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

RAA—Running annual average

Standard Units (S.U.)-pH of water measures the water's balances of acids and bases and is affected by temperature and carbon dioxide gas. Water with less than 5.5 could be acidic, soft, and corrosive. A pH greater than 8.5 could indicate that the water is hard.

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

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

The following table is a list of *Primary Drinking Water Contaminants* and a list of *Unregulated Contaminants* for which our water system routinely monitors. These contaminants were *not* detected in your drinking water unless they are listed in the *Table of Detected Drinking Water Contaminants.*

STANDARD LIST OF PRIMARY DRINKING WATER CONTAMINANTS

Contaminant	MCL	Unit of Meat	Contaminant	MCL	Unit of Msmt
Bacteriological Contaminants			trans-1,2-Dichloroethylene	100	ppb
Total Coliform Bacteria	<5%	present or absent	Dichloromethane	5	ppb
Fecal Coliform and E. coli	0	present or absent	1,2-Dichloropropane	5	ppb
Fecal Indicators	0	present or absent	Di (2-ethylhexyl)adipate	400	ppb
Turbidity	TT	NTU	Di (2-ethylhexyl)phthalate	6	ppb
Cryptosporidium	TT	calc.organisms/liter	Dinoseb	7	ppb
Radiological Contaminants			Dioxin [2,3,7,8-TCDD]	30	ppq
Beta/photon emitters	4	mremlyr	Diquat	20	ppb
Alpha emitters _	15	pCill	Endothall	100	ppb
Combined radium	5	pCi/1	Endrin	2	ppb
Uranium	30	pCi/1	Epichlorohydrin	TT	TT
Inorganic Chemicals			Ethylbenzene	700	ppb
Antimony	6	ppb	Ethylene dibromide	50	ppt
Arsenic	10	PP	Glyphosate	700	ppb
Asbestos	7	MFL	Heptachlor	400	ppt
Barium	2	ppm	Heptachlor epoxide	200	ppt
Beryllium	4	pph	Hexachlorobenzene	1	ppb
Cadmium	5	ppb	Hexachiorocyclopentadiene	50	ppb
Chromium	100	ppb	Lindane	200	ppt
Copper	AL-1.3	ppm	Methoxychlor	40	ppb
Cyanide	200	ppb	Oxamyl [Vydate]	200	ppb
Fluoride	4	ppm	Polychlorinated biphenyls	0.5	ppb
Lead	AL.15	ppb	Pentachlorophenol	1	ppb
Mercury	2	PO	Picloram	500	ppb
Nitrate	10	ppm	Simazine	4	ppb
Nitrite	1	ppm	Styrene	100	ppb
Selenium	.05	ppm	Tetrachloroethylene	5	ppb
Thallium	.002	ppm	Toluene	1	ppm
Organic Contaminants			Toxaphene	3	ppb
2,4-D	70	ppb	2,4,5-TP(Silvex)	50	ppb
Acrylamide	TT	TT	1,2,4-Trichlorobenzene	.07	ppm
Alachlor	2	ppb	1,1,1-Trichloroethane	200	ppb
Benzene	5	ppb	1,1,2-Trichloroethane	5	ppb
Benzo(a)pyrene [PAHs]	200	ppt	Trichloroethylene	5	ppb
Carbofuran	40	ppb	Vinyl Chloride	2	ppb
Carbon tetrachloride	5	ppb	Xylenes	10	ppm
Chlordane	2	ppb	Disinfectants & Disinfection Byproducts		
Chlorobenzene	100	ppb	Chlorine	4	ppm
Dalapon	200	ppb	Chlorine Dioxide	800	ppb
Dibromochloropropane	200	ppt	Chloramines	4	ppm
o-Dichlorobenzene	600	ppb	Bromate	10	ppb
p-Dichlorobenzene	75	ppb	Chlorite	1	ppm
1,2-Dichloroethane	5	ppb	HAA5 [Total haloacetic acids]	60	ppb
1,1-Dichloroethylene	7	ppb	TTHM [Total trihalomethanes]	80	ppb
cis-1,2-Dichloroethylene	70	ppb			

UNREGULATED CONTAMINANTS			
1,1 — Dlchloropropene	Aldicarb	Chloroform	Metolaphlor
1,1,1,2-Tetrachloroethane	Aldicarb Sulfone	Chloromethane	Metribuzin
1,1,2,2-Tetrachloroethane	Aldicarb Sulfoxide	Dibromochloromethane	N - Butylbenzene
1,1-Dichloroethane	Aldrin	Dibromomethane	Naphthalene
1,2,3 - Trichlorobenzene	Bromobenzene	Dicamba	N-Propyl benzene
1,2,3 - Trichloropropane	Bromochloromethane	Dichlorodifluoromethane	D-Chlorotoluene
1,2,4 - Trimethylbenzene	Bromodichloromethane	Dieldrin	P-Chlorotoluene
1,3 — Dichloropropane	Bromoform	Hexachlorobutadiene	P-Isopropyltoluene
1,3 — Dichloropropene	Bromomethane	Isoprpylbenzene	Propachlor
1,3,5 - Trimethylbenzene	Butachlor	M-Dichlorobenzene	Sec - Butylbenzene
2,2 — Dichloropropane	Carbaryl	Methomyl	Tert - Butylbenzene
3-Hydroxycarbofuran	Chloroethane	MTBE	Trichlorfluoromethane