

What Is The Source of My Drinking Water?



The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and groundwater wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and in some cases radioactive material. It can also pick up substances resulting from the presence of animals or from human activity.

The City of Branson has Two Surface Water Treatment Plants and Six Ground Water Wells. In 2019, 98% of the treated water that serves the City of Branson came from the treatment plants which pump water from Lake Taneycomo. The City treated 1.020 Billion Gallons of water in 2019. An average of 3.673 million gallons per day is treated during peak summer months and 2.015 million gallons per day in the winter months.

Source Water Assessment

The Department of Natural Resources conducted a source water assessment to determine the susceptibility of our water source to potential contaminants. This process involved the establishment of source water area delineations for each well or surface water intake and then a contaminant inventory was performed within those delineated areas to assess potential threats to each source. Assessment maps and summary information sheets are available on the internet at <http://drinkingwater.missouri.edu/swip/swipmaps/pwssid.htm>. To access the maps for your water system you will need the State-assigned identification code, MO5010096. The Source Water Inventory Project maps and information sheets provide a foundation upon which a more comprehensive source water protection plan can be developed.

WATER QUALITY RESULTS FOR 2019

VIOLATIONS AND HEALTH EFFECTS INFORMATION									
During the 2019 calendar year, we had the below noted violation(s) of drinking water regulations.									
COMPLIANCE PERIOD		ANALYTE				TYPE			
No Violations Occurred in the Calendar Year of 2019									
Regulated Contaminants	Collection Date	Highest Test Results	Range of Sampled Result(s) (low - high)		Unit	MCL	MCL G	Typical Source	
BARIIUM	3/13/2019	0.0305	0.03 - 0.0305		ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	
FLUORIDE	3/13/2019	0.74	.6 - 0.74		ppm	4	4	Natural deposits; Water additive which promotes strong teeth	
NITRATE - NITRITE	3/27/2019	0.73	0.015 - 0.73		ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	
Disinfection Byproducts	Sample Point	Monitoring Period	Highest LRAA	Range of Sampled Results(s) (low - high)		UNIT	MC L	MCL G	Typical Source
(HAAS)	DBPDUAL-01	2019	40	25.5 - 71.4		ppb	60	0	Byproduct of drinking water disinfection
(HAAS)	DBPDUAL-02	2019	30	21.8 - 40.8		ppb	60	0	Byproduct of drinking water disinfection
(HAAS)	DBPDUAL-03	2019	38	22.8 - 62.7		ppb	60	0	Byproduct of drinking water disinfection
(HAAS)	DBPDUAL-04	2019	43	28.8 - 80.9		ppb	60	0	Byproduct of drinking water disinfection
TTHM	DBPDUAL-01	2019	53	36 - 56.4		ppb	80	0	Byproduct of drinking water disinfection
TTHM	DBPDUAL-02	2019	40	31.7 - 39.8		ppb	80	0	Byproduct of drinking water disinfection
TTHM	DBPDUAL-03	2019	46	32.2 - 45.7		ppb	80	0	Byproduct of drinking water disinfection
TTHM	DBPDUAL-04	2019	51	43 - 55		ppb	80	0	Byproduct of drinking water disinfection
Total Organic Carbon	Collection Date	Highest Value	Range of Sampled Result(s) (low - high)		Unit	TT	Typical Source		
CARBON, TOTAL	11/5/2019	1.66	1.25 - 1.66		MG/L	0	Naturally present in the environment		
Lead and Copper	Date	90th Percentile	Range of Sampled Result(s) (low - high)		Unit	AL	Sites Over AL	Typical Source	
COPPER	2016 - 2018	0.162	0.0103 - 0.384		ppm	1.3	0	Corrosion of household plumbing systems	
LEAD	2016 - 2018	6.34	0.0 - 23.9		ppb	15	2	Corrosion of household plumbing systems	
Radionuclides	Collection Date	Highest Value	Range of Sampled Results(s) (low - high)		UNIT	MC L	MCLG	Typical Source	
COMBINED RADIUM (-226 & -228)	8/21/2018	1.3	1.2 - 1.3		pCi/l	5	0	Erosion of natural deposits	
GROSS ALPHA PARTICLE ACTIVITY	8/21/2018	10.4	8 - 10.4		pCi/l			Erosion of natural deposits	
RADIUM-226	8/21/2018	1.3	1.2 - 1.3		pCi/l	5	0	Erosion of natural deposits	
TURBIDITY									
Turbidity is a measure of cloudiness of water. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system.									
% of Samples in compliance with Standard	Months Occurred	Monitoring Violation	Highest Single Measurement	Month Occurred	Sources	In Compliance			
100	11	NO	0.199	NOV	SOIL RUNOFF	YES			
100	12	NO	0.13	SEP	SOIL RUNOFF	YES			
Microbiological	Result				MCL	MCLG	Typical Source		
COLIFORM (TCR)	In the month of June, 1 sample(s) returned as positive				Treatment Technique Trigger	N/A	Naturally present in the environment		

Terms & Abbreviations

Population: 11,647. This is the equivalent residential population served including non-bill paying customers.

MCLG: Maximum Contaminant Level Goal, or 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.

MCL: Maximum Contaminant Level, or 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.

AL: Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

TT: Treatment technique, or a required process intended to reduce the level of a contaminant in drinking water.

90th Percentile: For Lead and Copper testing. 10% of test results are above this level and 90% are below this level.

Level Found: Is the average of all test results for a particular contaminant.

Range of Results: Shows the lowest and highest levels found during a testing period, if only one sample was taken, then this number equals the Highest Value.

LRAA: Locational Running Annual Average, or the locational average of sample analytical results for samples taken during the previous four calendar quarters.

TTHM: Total Trihalomethanes (chloroform, bromodichloromethane, dibromochloromethane, and bromoform) as a group.

HAAS: Haloacetic Acids (mono-, di- and tri-chloroacetic acid, and mono- and di- bromoacetic acid) as a group.

ppb: parts per billion or micrograms per liter.

ppm: parts per million or milligrams per liter.

pCi/l: Picocuries per liter, Unit of measure for radioactive concentrations

NTU: Nephelometric Turbidity Unit, used to measure cloudiness in drinking water.

ND: not detectable at testing limits.

N/A: not applicable.

The state has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Records with a sample year more than one year old are still considered representative.

This report is intended to provide you with important information about your drinking water and the efforts made to provide safe drinking water. Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

WATER FACTS

* At birth, an infant's body weight is made up of approximately 80 percent of water.

* An adult's body is made up of approximately 70% water. By the time a person feels thirsty they have already lost over 1% of their body water amount.

* Although it is recommended that an adult consume eight cups of water per day, not all of this water must be drunk in liquid form. Some may come from the food that you eat.

* Caffeine (from coffee, soft drinks, and tea) can act as a mild diuretic. It can prevent water from traveling to necessary locations in the body as well as affect absorption. It is said that all caffeine must be rid from the body in order for the body to hydrate properly.

* When water travels through the body it carries chemicals, minerals and nutrients with it. In fact it dissolves more substances than any other liquid.

* Roughly 70% to 75% of the Earth's surface is covered with water. The total amount of water on the earth is approximately 326 cubic miles of water.

* According to the U.S. Geological Survey, the United States uses about 323 billion gallons of water per day (during the year 2015).

* Nearly 80% of the water used in the United States is for irrigation and thermoelectric power.

* The average person in the U.S. uses approximately 80 to 100 gallons of water per day. The largest amount of this water use is from flushing the toilet.

* It is important that our bodies receive clean healthy water in order to survive and it is up to us to help protect the Earth's natural resources.

Why are there contaminants in my water?

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. 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). *Contaminants that may be present in source water include:*

- A. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
 - B. Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.
 - C. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
 - D. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
 - E. 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, the Department of Natural Resources prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Department of Health regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Is our water system meeting other rules that govern our operations?

The Missouri Department of Natural Resources regulates our water system and requires us to test our water on a regular basis to ensure its safety. Our system has been assigned the identification number

MO5010096 for the purposes of tracking our test results. Last year, we tested for a variety of contaminants. The detectable results of these tests are on the following pages of this report. Any violations of state requirements or standards will be further explained later in this report.

How might I become actively involved?

If you would like to observe the decision-making process that affect drinking water quality or if you have any further questions about your drinking water report, please call us at **417-243-2714** to inquire about scheduled meetings or contact persons.

Do I need to take any special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Special Lead and Copper Notice:

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. BRANSON PWS 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 (800-426-4791) or at <http://water.epa.gov/drink/info/lead/index.cfm>.

Utilities Mission Statement

The Utilities Department is committed in providing professional customer service to those visiting the area and those who make this community home. We will consistently provide safe public drinking water for our visitors and citizens. Our wastewater collection and treatment systems will be operated to produce the highest quality effluent possible in order to protect our lakes and streams for the enjoyment of future generations.



Community Participation

Your input on water quality is always welcomed. The City Council meets every 2nd and 4th Tuesday of the month at 6:00 p.m. in the Council Chambers at City Hall, located at 110 W. Maddux Street #210. Please feel free to participate in those meetings.

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WATER

Quality Report

2019