

CITY of BRANSON



WATER Quality Report 2013

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 7:00 p.m. in the Council Chambers at City Hall, located at 110 W. Maddux Street #210. Please feel free to participate in these meetings.

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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 417-337-5296 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 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>.

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, and can 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 the year 2013, 91% of the treated water that serves the City of Branson came from the treatment plants which pump water from Lake Taneycomo. The City treated 1.256 billion gallons of water in the year 2013. During peak summer months the average water treated per day is 4.846 million gallons and in the winter months it is 2.306 million gallons.

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://maproom.missouri.edu/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 2013

| VIOLATIONS AND HEALTH EFFECTS INFORMATION | | | | | | | |
|---|-------------------|-----------------|-------------------------------|----------------------------|---------|--------------------------------------|---|
| During the 2013 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 2013 | | | | | | | |
| REGULATED CONTAMINANTS | COLLECTION DATE | HIGHEST VALUE | RANGE OF DETECTION (LOW-HIGH) | UNIT | MCL | MCLG | TYPICAL SOURCE |
| BARIUM | 3/13/2013 | 0.0292 | 0.0292 | PPM | 2 | 2 | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| CHROMIUM | 3/13/2013 | 3.21 | 2.65 - 3.21 | PPB | 100 | 100 | Discharge from steel and pulp mills |
| FLUORIDE | 3/13/2013 | 0.91 | 0.74 - 0.91 | PPM | 4 | 4 | Natural deposits; Water additive which promotes strong teeth |
| NITRATE-NITRITE | 8/13/2013 | 0.64 | 0 - 0.64 | ppm | 10 | 10 | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| TOLUENE | 3/13/2013 | 0.00101 | 0 - 0.00101 | PPM | 1 | 1 | Discharge from petroleum factories |
| XYLENES, TOTAL | 3/13/2013 | 0.00072 | 0 - 0.00072 | PPM | 10 | 10 | Discharge from petroleum factories; Discharge from chemical factories |
| DISINFECTION BYPRODUCTS | MONITORING PERIOD | HIGHEST RAA | RANGE OF DETECTION (LOW-HIGH) | UNIT | MCL | MCLG | TYPICAL SOURCE |
| (HAA5) | 2013 | 29 | 11.2 - 48.9 | PPB | 60 | 0 | Byproduct of drinking water disinfection |
| TTHM | 2013 | 36 | 22.4 - 62.3 | PPB | 80 | 0 | Byproduct of drinking water disinfection |
| TOTAL ORGANIC CARBON | COLLECTION DATE | HIGHEST VALUE | RANGE OF DETECTION (LOW-HIGH) | UNIT | TT | TYPICAL SOURCE | |
| CARBON, TOTAL | 11/20/2013 | 1.97 | 1.25 - 1.97 | MG/L | 0 | Naturally present in the environment | |
| LEAD AND COPPER | DATE | 90TH PERCENTILE | RANGE OF DETECTION (LOW-HIGH) | UNIT | AL | Sites Over AL | TYPICAL SOURCE |
| COPPER | 2010 - 2012 | 0.159 | 0.0146 - 0.294 | PPM | 1.3 | 0 | Corrosion of household plumbing systems |
| LEAD | 2010 - 2012 | 5.77 | 1.35 - 6.51 | PPB | 15 | 0 | Corrosion of household plumbing systems |
| RADIONUCLIDES | COLLECTION DATE | HIGHEST VALUE | RANGE OF DETECTION | UNIT | MCL | MCLG | TYPICAL SOURCE |
| COMBINED RADIUM (-226 & -228) | 1/14/2013 | 1.4 | 1.4 | pCi/l | 5 | | Erosion of natural deposits |
| GROSS ALPHA PARTICLE ACTIVITY | 1/14/2013 | 5.9 | 5.9 | pCi/l | | | Erosion of natural deposits |
| RADIUM-226 | 1/14/2013 | 1.4 | 1.4 | pCi/l | 5 | 0 | |
| 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. | | | | | | | |
| PERCENTAGE OF SAMPLES IN COMPLIANCE WITH STD | MONTHS OCCURRED | | VIOLATION | HIGHEST SINGLE MEASUREMENT | MONTH | SOURCES | |
| 100 | 12 | | NO | 0.21 NTU | July | SOIL RUNOFF | |
| MICROBIOLOGICAL | RESULT | MCLG | | TYPICAL SOURCE | SOURCES | | |
| No Detected Results were Found in the Calendar Year of 2013 | | | | | | | |

Definitions & Abbreviations

Population: 10,520. 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 Detections: Shows the lowest and highest levels found during a testing period, if only one sample was taken, then this number equals the Level Found.

RAA: Running Annual Average, or the 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.

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.



Water Information To Think About

1. Less than 2% of the earth's water supply is fresh water.
2. Every day in the United States, we drink about 110 million gallons of water.
3. Showering and bathing are the largest indoor uses (27%) of water domestically.
4. The Average American uses 140-170 gallons of water per day.
5. If every household in America had a faucet that dripped once each second, 928 million gallons of water a day would leak away.
6. If you water your grass and trees more heavily, but less often, this saves water and builds stronger roots.
7. An automatic dishwasher uses 9 to 12 gallons of water while hand washing dishes can use up to 20 gallons.
8. Do not hose down your driveway or sidewalk. Use a broom to clean leaves and other debris from these areas. Using a hose to clean driveway wastes hundreds of gallons of water.
9. You can refill an 8-oz glass of water approximately 15,000 times for the same cost of a six pack of soda pop.

Water information courtesy of Mohave Water Agency, Apple Valley, CA.