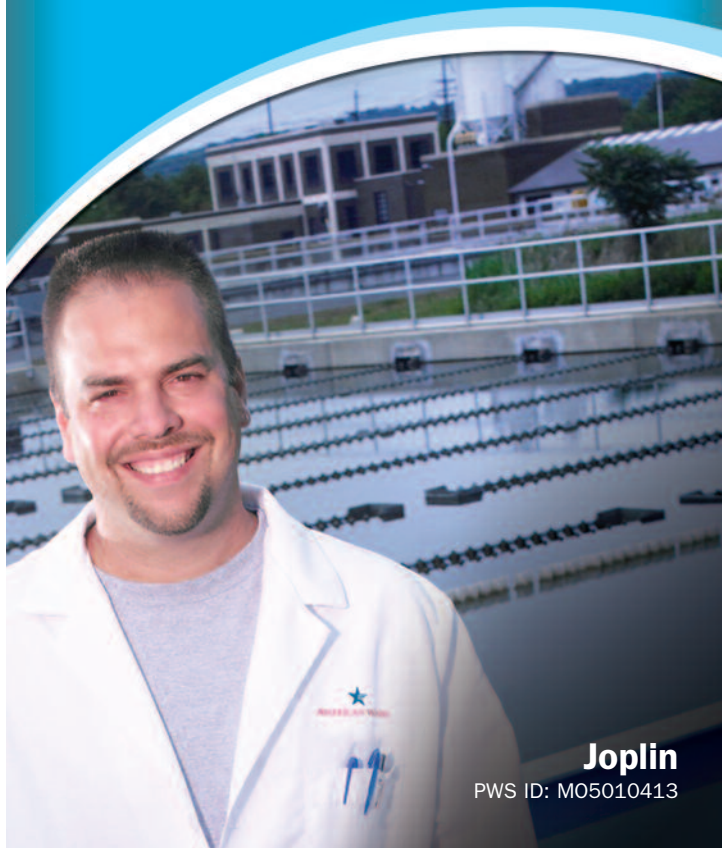


2008 Annual Water Quality Report



Joplin

PWS ID: M05010413

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Dear Missouri American Water Customer,

As a trusted leader in the industry, Missouri American Water places a strong emphasis on sharing information with our customers about the quality of the water service we provide.

One way we do this is by reporting to you annually the results of various tests that we conduct. Please review this Consumer Confidence Report (CCR), which outlines information applicable to your local water system for testing completed through December 2008.

Missouri American Water often addresses regulations well before they go into effect. Just as important, we make the necessary investments to maintain and upgrade our facilities so that we can provide quality water service to your home 24 hours a day, seven days a week.

Our customers are our top priority. We are committed to providing the highest quality drinking water service possible now and in the years to come. In addition to this written report, you can view information about Missouri American Water and your water system on the website <http://www.missouriamwater.com>. For more information or for any questions about this report relating to your drinking water service, please contact us at (866) 430-0820.

*Sincerely,
Terry Gloriod
President
Missouri American Water*

What is a Water Quality Report?

To comply with state and U.S. Environmental Protection Agency (EPA) regulations, Missouri American Water issues a report annually describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect drinking water sources. In 2008, we conducted tests for hundreds of contaminants. This report provides an overview of last year's (2008) water quality. It includes details about where your water comes from and what it contains.

If you have any questions about this report or your drinking water, please call our Customer Service Center at (toll-free) 1-866-430-0820.

About Missouri American Water

Founded in 1886, American Water is the largest investor-owned U.S. water and wastewater utility company. With headquarters in Voorhees, N.J., the company employs more than 7,000 dedicated professionals who provide drinking water, wastewater and other related services to approximately 15 million people in 32 states and Ontario, Canada.

At Missouri American Water, and all of American Water, we work hard everyday to provide our customers with water they can enjoy and use with confidence.

Source Water Information

Missouri American Water supplies quality drinking water to over 23,900 residential, commercial and industrial customers in the City of Joplin. Missouri American Water treats a combination of surface water and groundwater. The primary source is Shoal Creek, which is supplemented by a system of deep wells.

How to Contact Us

For more information regarding this report or any of the other services provided by Missouri American Water, please call our Customer Service Center at (toll-free) 1-866-430-0820, or you may visit us at www.missouriamwater.com.

Water Information Sources

- **Missouri American Water**
www.missouriamwater.com
- **Missouri Department of Natural Resources**
www.dnr.mo.gov
- **United States Environmental Protection Agency**
www.epa.gov/safewater
- **Safe Drinking Water Hotline:** (800) 426-4791
- **Centers for Disease Control and Prevention**
www.cdc.gov
- **American Water Works Association**
www.awwa.org
- **Water Quality Association**
www.wqa.org
- **National Library of Medicine/
National Institute of Health**
www.nlm.nih.gov/medlineplus

Substances Expected to be in 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.

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.

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 may result from urban stormwater runoff, 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, urban stormwater runoff, 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 stormwater runoff, and septic systems.

Radioactive Contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

For more information about the contaminants and potential health effects, call the USEPA Safe Drinking Water Hotline at (800) 426-4791.

Radon

Radon is a radioactive gas that has been linked to lung cancer. The contribution from drinking water is usually small compared to normal indoor levels. Radon gas is naturally occurring in some ground water. Although the majority of water supplied by our Joplin district comes from surface water, approximately 15% comes from ground water. The Joplin wells were sampled for radon in 2008. Radon levels in these wells ranged from not detected to 126 pCi/L, with an average of 56.9 pCi/L – less than the limit currently proposed by the EPA (there is presently no federal limit on radon in drinking water). For information on radon in indoor air, call your local health department or the National Radon Hotline at (800) 767-7236.

Our Water Research Efforts

Cryptosporidium is a microbial pathogen found in surface water throughout the United States. Although *Cryptosporidium* can be removed through commonly-used filtration methods, USEPA issued a new rule in January 2006 that requires systems with higher *Cryptosporidium* levels in their source water to provide additional treatment. Missouri American Water's Joplin district monitored for *Cryptosporidium*, and found elevated levels in the raw water due to poor source water conditions following significant rainfall events. To address the potential of elevated *Cryptosporidium* levels, we installed ultraviolet disinfection in 2008, four years ahead of the EPA deadline.

Special Health Information

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 may 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 USEPA Safe Drinking Water Hotline (800) 426-4791.

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. Missouri American Water 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>.

To ensure that tap water is of high quality, U.S. Environmental Protection Agency prescribes regulations limiting the amount of certain substances in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Missouri American Water's advanced water treatment processes are designed to reduce any such substances to levels well below any health concern.

How to Read This Table

Missouri American Water conducts extensive monitoring to ensure that your water meets all water quality standards. The results of our monitoring are reported in the following tables. While most monitoring was conducted in 2008, certain substances are monitored less than once per year because the levels do not change frequently. For help with interpreting this table, see the "Table Definitions" section.

Starting with a **Substance**, read across. **Year Sampled** is usually in 2008 or year prior. **MCL** shows the highest level of substance (contaminant) allowed. **MCLG** is the goal level for that substance (this may be lower than what is allowed). **Results** represents the measured amount (less is better). **Range** tells the highest and lowest amounts measured. A **Yes** under **Compliance Achieved** means the amount of the substance met government requirements. **Typical Source** tells where the substance usually originates.

Unregulated substances are measured, but maximum contaminant levels have not been established by the government.

Definitions of Terms Used in This Report

AL (Action Level): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

MCL (Maximum Contaminant Level): 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.

MCLG (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.

MRDL (Maximum Residual Disinfectant Level): The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of 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 contamination.

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

NA: Not applicable

ND: Not detected

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of the water.

ppm (parts per million): One part substance per million parts water, or milligrams per liter.

ppb (parts per billion): One part substance per billion parts water, or micrograms per liter.

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

Water Quality Statement

Our objective is to deliver water to your home or business that meets all state and federal drinking water requirements. We feel it is important that you know exactly what was detected and how much of the substance was present in the water (see table below). For additional information concerning our results, please contact our customer service department at (toll-free) 1-866-430-0820.

Monitoring was also done during 2003 under the U.S. Environmental Protection Agency (EPA) Unregulated Contaminant Monitoring Rule (UCMR). No compounds were detected. Data is available on the EPA's web site (www.epa.gov/safewater/data/ucmrgetdata.html).

There are many unforeseen and unpredictable factors that may cause a source water to be contaminated. The Missouri Department of Natural Resources routinely monitors all public water supplies to ensure public health is protected. Source Water Assessments have been assembled by the Missouri Department of Natural Resources to evaluate the susceptibility of contamination to our drinking water sources. For more information about these assessments call the Missouri Department of Natural Resources at (800) 361-4827.

Water Quality Results

Regulated Substances (Measured on the Water Leaving the Treatment Facility)

Substance (units)	Year Sampled	MCL	MCLG	Results	Range Low-High	Compliance Achieved	Typical Source
Alpha emitters (pCi/L)	2007	15	0	2.6	2.6 - 2.6	Yes	Erosion of natural deposits
Arsenic (ppb)	2008	10	0	0.1	ND - 1	Yes	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Atrazine (ppb)	2008	3	3	0.02	ND - 0.2	Yes	Runoff from herbicide used on row crops
Beta/photon emitters (pCi/L)	2004	50**	0**	2.7	2.7 - 2.7	Yes	Decay of natural and man-made deposits
Barium (ppm)	2008	2	2	0.09	0.002 - 0.161	Yes	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chloramines (ppm)	2008	MRDL = 4	MRDLG = 4	3.1	1.7 - 4.0	Yes	Water additive used to control microbes
Fluoride (ppm)	2008	4	4	0.31	0 - 0.9	Yes	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (as N) (ppm)	2008	10	10	1.05	ND - 3.32	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite (as N) (ppm)	2008	1	1	0.004	ND - 0.011	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Organic Carbon (ppm)	2008	TT	NA	1.0	1.0 - 1.0	Yes	Naturally present in the environment

** The MCL for Beta/photon emitters is written as 4 millirem/year (measure of rate of radioactive decay). EPA considers 50 pCi/L as the level of concern for beta emitters.

Bacterial Results (from the Distribution System)

Substance (units)	Year Sampled	MCL	MCLG	Highest Percentage Detected	Compliance Achieved	Typical Source
Total Coliform Bacteria	2008	5% Positive Samples	0	0.00%	Yes	Naturally present in the environment

Other Compounds (Measured in the Distribution System)

Substance (units)	Year Sampled	MCL	MCLG	Results	Range Low-High	Compliance Achieved	Typical Source
THMs [Total trihalomethanes] (ppb)	2008	80	NA	22	8.7 - 36	Yes	By-product of drinking water disinfection
HAA5 [Haloacetic Acids] (ppb)	2008	60	NA	24	8.2 - 56.4	Yes	By-product of drinking water disinfection

Turbidity: A Measure of the Clarity of the Water (at the Treatment Facility)

Substance (units)	Year Sampled	MCL	MCLG	Highest Single Measurement	Compliance Achieved	Typical Source
Turbidity (NTU)	2008	TT	NA	†† 5.53	No	Soil runoff

† Flash flooding of Shoal Creek on January 9-10, 2008 created poor source water conditions. These conditions coupled with instrumentation and chemical feed failures contributed to turbidities exceeding the combined filter effluent turbidity standard of 1 ntu. Treatment techniques were immediately modified to return the plant to compliance, and backup systems have been installed to prevent future turbidity incidents.

† Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause such symptoms such as nausea, cramps, diarrhea, and associated headaches.

Unregulated Substances (Measured on the Water Leaving the Treatment Facility)

Substance (units)	Year Sampled	Results	Range Low-High	Typical Source
Bromodichloromethane (ppb)	2008	4.8	2.7 - 7.6	By-product of disinfection
Chlorodibromomethane (ppb)	2008	0.8	ND - 1.4	By-product of disinfection
Chloroform (ppb)	2008	17.9	5.0 - 29.9	By-product of disinfection
Sulfate (ppm)	2008	20.8	10.7 - 77.5	Erosion of natural deposits

Tap Water Samples: Lead and Copper Results

Substance (units)	Year Sampled	Action Level	MCLG	Number of Samples	90th Percentile	Number of Samples Above Action Level	Typical Source
Copper (ppm)	2008	AL = 1.3	1.3	30	0.13	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2008	AL = 15	0	30	5.0	0	Corrosion of household plumbing systems; Erosion of natural deposits