



2022 Drinking Water System Annual Water Quality Report PWS ID#: 061000101

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Is my water safe?

This report is a snapshot of last year's drinking water quality. Included are the details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with information because informed customers are our best allies.

Do I need to take precautions?

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. The Environmental Protection Agency (EPA) and the Centers for Disease Control (CDC) have guidelines on appropriate means to lessen the risk of microbial contaminants infection, such as *Cryptosporidium*, that are available from the Safe Drinking Water Hotline (1-800-426-4791).

Where does my water come from?

Your drinking water supply primary source is groundwater. Your source of drinking water comes from the Roubidoux Aquifer. After the water comes from the Roubidoux Aquifer, it is treated and disinfected to protect you against microbial contaminants. The Eastern Shawnee water system has one active well that serves the community.

Source water assessment and its availability

The 1996 amendments to the Safe Drinking Water Act authorized a Source Water Assessment Program to determine the susceptibility of a public drinking water supply to contamination. Sources of contaminants are required to be inventoried during the assessment process.

The EPA Region 6 Source Water Protection Branch in cooperation with the Eastern Shawnee Tribe of Oklahoma Water Utilities conducted this assessment for the current active well in March 2008. Based on the following factors, our water system was determined to have a **Low** susceptibility to contamination. The physical integrity of the source, the characteristics of the hydrologic system around the source, the characteristics of the contaminants inventoried and the likelihood of those contaminants to reach the source of the drinking water supply are low. A copy of this SWA report is available at our utility office for your review.

Why are there contaminants in my drinking 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. To ensure that tap water is safe to drink, EPA prescribes regulations that limit the number of certain contaminants in water provided by public water systems. The quality of your water must meet EPA standards. The US Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

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 the land or through the ground, it dissolves naturally occurring minerals, and can pick up substances resulting from the presence of animal or human activity.

Contaminants that may be present in source water before treatment 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 runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides & herbicides*, which may come from a variety of sources such as agriculture and residential use.
- *Radioactive contaminants*, which are naturally occurring and from decay of natural and man-made-deposits.
- *Organic chemical contaminants*, including synthetic and volatile organic compounds, which are by-products of industrial processes and petroleum production, and also can come from gas stations, urban storm water runoff, and septic systems.

How can I get involved?

If you have any questions or concerns, you can contact Kristi Laughlin, Environmental Director, at 918-666-5151 x1041, Justin Morehead, Water Utilities Operator, at 918-666-5151 x1045, or Justin Burris, Environmental Technician, at 918-666-5151 x1040.

Additional information for Lead

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. Eastern Shawnee Tribe of Oklahoma Water Utilities is responsible for providing high quality 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 www.epa.gov/safewater/lead.

Infants and children who drink water containing lead in excess of the action level could experience delays in physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

2022 Water Quality Data Tables

The Eastern Shawnee Tribe of Oklahoma Water Utilities routinely monitors for contaminants in your drinking water according to Federal laws. The table below lists all the drinking water contaminants detected or tested during the 2022 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2022. EPA requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Because of this, some of the data, though representative of the water quality, is more than one year old.

Detected Regulated Contaminants

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Highest In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Haloacetic Acids (HAA5) (ppb)	No goal for total	60	1.72	1.72	1.72	2021	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	No goal for total	80	8.43	8.43	8.43	2021	No	By-product of drinking water disinfection
Chlorine (mg/L)	<4.0	4.0	1.25	0.39	1.25	2022	No	Water additive to prevent growth of microbes

Radioactive Contaminants								
Beta/photon emitters (pCi/L)	0	50	1.74	1.74	1.74	2017	No	Decay of natural and man-made deposits. The EPA considers 50 pCi/L to be the level of concern for Beta particles.
Radium (combined 226/228) (pCi/L)	0	5	0.97	0.97	0.97	2017	No	Erosion of natural deposits
Alpha emitters (pCi/L)	0	15	1.47	1.47	1.47	2017	No	Erosion of natural deposits
Contaminants	ALG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source	
Lead and Copper								
Lead – 90 th percentile at consumer taps (ppb)	0	15	ND	2021	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	
Copper – 90 th percentile at consumer taps (ppm)	1.3	1.3	0.164	2021	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	

Units and Definitions

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
positive samples/month	positive samples/month: Number of samples taken monthly that were found to be positive for bacteriological contaminants
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required but recommended.

Important Drinking Water Definitions

Term	Definition
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.
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.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
ALG	Action Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety

90 th Percentile	90 th Percentile: A value at which 90% of all samples collected tested at or below this value
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. 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.
MRDL	MRDL: Maximum residual disinfectant level. 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.

Contact Information

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