2016 Annual Water Quality Report
City of Barnsdall
PWS ID# OK1021304

We are once again pleased to present this year's Annual Water Quality Report. This report is designed to inform our clients of all water testing results between January 1 and December 31, 2016. Our constant goal is to provide a safe and dependable supply of drinking water that meets all state and federal standards. We continually strive to improve water treatment methods and protect our water resources. We are committed to insuring the quality of your drinking water.

Is my water safe?
We provide safe drinking water to your home. Our source water is surface water drawn from Waxhoma Lake, treated and distributed to each home. We are required to test for lead and copper, bacteriological, inorganic, and other possible contaminants to ensure that your drinking water is safe for consumption.

Do I need to take special precautions?
Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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. 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).

Why are there contaminants in my drinking water?
Drinking water, including bottled water, may reasonably be expected to contain small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. The sources of drinking water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up contaminants resulting from animals or human activity: Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that 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 and herbicides, which may come from a variety of sources such as agriculture, urban storm water 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 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.

For More Information
For any questions relating to your drinking water please contact Jeremy Rye at (918) 847-3522. More information about contaminants and potential health effects can be obtained by calling the Safe Drinking Water Hotline (800-426-4791). We want our valued customers to be informed about their water.

Abbreviations:	
ppm	parts per million, or milligrams per Liter (mg/L)
ppb	parts per billion, or micrograms per Liter (µg/L)
pCi/L	picocuries per Liter (a measure of radioactivity)
MCLG	Maximum Contaminant Level Goal. The level of contaminant in drinking water below which there is no known or expected risks 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.
NA	not applicable

Additional Information about 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. We are 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.

2016 Monitoring Results for The City of Barnsdall

All test results are for the year 2016 unless otherwise noted

Contaminants	Sample Date	Highest Level Detected	Range	MCLG	MCL	Units	Violation	Likely Sources of Contamination
Inorganic Contaminants								
Barium	2013	0.0248	0.0248- 0.0248	2	2	ppm	No	Discharged drilling and refinery waste; Erosion of natural deposits.
Radioactive Contaminants								
Beta/photon Emitters	2016	6.51	6.51 – 6.51	0	50	pCi/L	No	Decay ofnatural and man-made deposits.
Combined Radium 226/228	2016	1.77	1.77 – 1.77	0	5	pCi/L	No	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2016	0.375	0.375-0.375	0	15	pCi/L	No	Erosion of natural deposits.
Disinfectants and Disinfection By-Products								
Chlorine	2016	2	2- 2	MRDLG =4	MRDL =4	ppm	No	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2016	106	51.1 - 134	NA	60	ppb	Yes	By-product of drinking water chlorination
Total Trihalomethanes (TTHM)	2016	221	123 - 343	NA	80	ppb	Yes	By-product of drinking water chlorination

Violations Table

Violation Type	Begin	End	Violation Explanation
Trihalomethanes (TTHM) and Haloacetic Acids (HAA5): Some people who drink water containing trihalomethanes and/or haloacetic acids in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.			
Failure to Submit OEL Report for TTHM and HAA5	6/30/2016	12/21/2016	We failed to submit our operational evaluation level (OEL) report to our regulator. The report is needed to determine best treatment practices necessary to minimize possible future exceedences of HAA5.
MCL, Local Running Annual Average (LRAA)	1/1/2016	3/30/2016	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the periods indicated.
	4/1/2016	6/30/2016	
	7/1/2016	9/30/2016	
	10/1/2016	12/31/2016	
Interim Enhanced Surface Water Treatment Rule (IESWTR): This Rule improves control of microbial contaminants , particularly Cryptosporidim, in systems using surface water. The Rule builds upon treatment technique requirements of the Surface Water Treatment Rule.			
Monitoring, Routine, Major (IESWTR / LT1)	2/1/2016	2/29/2016	We failed to test our drinking water for the contaminants and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
	4/1/2016	4/30/2016	
	5/1/2016	5/31/2016	
	8/1/2016	8/31/2016	
Single Combined Filter Effluent (IESWTR / LT1)	2/1/2016	2/29/2016	One turbidity measurement exceeded a standard for the month indicated. Turbidity levels are used to measure effective filtration for drinking water.
Nitrate and Nitrite [measured as Nitrogen]: Infants below the age of six months who drink water containing nitrate and nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.			
Monitoring, routine major	1/1/2016	12/31/2016	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
Total Organic Carbon: Total organic carbon has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include Trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health			
Inadequate DBP precursor removal	01/01/2016	03/31/2016	Our treatment plant failed to adequately reduce the total organic carbon content of our source water which is needed to properly minimize the amount of disinfection byproducts in our drinking water.
	04/01/2016	06/30/2016	