

City of Okmulgee
2016 Consumer Confidence Report

We're very pleased to provide you with this year's Annual Consumer Confidence Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water. Our water source is surface water drawn from Lake Okmulgee. We have a source water protection plan available from our office that shows the vulnerability for our system as HIGH. Additionally more information such as potential sources of contamination are listed.

This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact Clint Hudgens at 918-758-1199. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of the City Council/Okmulgee Municipal Authority's regularly scheduled meetings. They are held at 5:00 PM the third Tuesday of each month in the Council Chambers at City Hall or citizens can call 756-4060 for current information on date and time of scheduled meetings.

The City of Okmulgee routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2016. (Some of our data may be more than one year old because the state allows us to monitor for some contaminants less often than once per year.) All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

Definitions:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l)

Parts per billion (ppb) or Micrograms per liter (ug/l)

Parts per trillion (ppt) or Nanograms per liter (nanograms/l)

Parts per quadrillion (ppq) or Picograms per liter (picograms/l)

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

Treatment Technique (TT) - (mandatory language) A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level (MCL) - (mandatory language) The MCL is 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.

Maximum Contaminant Level Goal - (mandatory language) The MCLG is 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.

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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 EPA's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water 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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water before we treat it 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 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 and residential uses.

**Radioactive contaminants*, which are naturally occurring.

*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.

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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

Please call our office if you have questions.

TEST RESULTS

Contaminant	Violation Y/N	Highest Level Detected	Range Detected	MCL	MCLG	Likely Source of Contamination
Microbiological Contaminants						
Turbidity (NTU) <i>(highest single measurement)</i>	N	0.3		TT = 1 NTU	N/A	Soil runoff
Turbidity (NTU) <i>(Lowest monthly % meeting limit)</i>	N	100%		TT ≤ 0.3 NTU in 95% of monthly samples	N/A	Soil runoff
Radiochemical Contaminants						
Combined radium 226/228 (pCi/L)	N	0.2	0.2 – 0.2	5	0	Erosion of natural deposits
Inorganic Contaminants						
Barium (ppm)	N	0.026	0.026 – 0.026	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper (ppm)	N	0.178	0.178- 0.178	AL=1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Nitrate (ppm) (as Nitrogen)	N	BPQL	BPQL	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Volatile Organic Contaminants						
Haloacetic Acids (HAA5) (ppb)	Y	59	30.2 – 74.3	60	N/A	By-product of drinking water chlorination
TTHM [Total trihalomethanes] (ppb)	Y	82	33.8 - 144	80	N/A	By-product of drinking water chlorination

Violations

The table shows that our system uncovered some problems this year.

2, 4-D

Some people who drink water containing the weed killer 2, 4-D well in the excess of the MCL over many years could experience problems with their kidneys, liver, or adrenal glands. We failed to test our drinking water for the contaminant between 01/01/2014 - 12/31/2016. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Beta/photon emitters

Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have increased risk of getting cancer. EPA considers 50 pCi/l to be the level of concern for beta. We failed to test our drinking water for the contaminant between 01/01/2008 - 12/31/2016. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Combined Radium 226/228

Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of cancer. We failed to test our drinking water for the contaminant between 01/01/2008 - 12/31/2016. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Glyphosate

Some people who drink water containing glyphosate in excess of the MCL over many years could experience problems with their kidneys or reproductive difficulties. We failed to test our drinking water for the contaminant between 01/01/2014 - 12/31/2016. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Gross alpha excluding radon and uranium

Certain minerals are radioactive and may emit forms of radiation known as alpha radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have increased risk of getting cancer. We failed to test our drinking water for the contaminant between 01/01/2008 - 12/31/2016. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Nitrate and nitrite

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. We failed to test our drinking water for the contaminant between 01/01/2016 - 12/31/2016. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Simazine

Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood. We failed to test our drinking water for the contaminant between 01/01/2014 - 12/31/2016. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Uranium

Some people who drink water containing uranium in excess of the MCL (30ug/L) over many years may have increased risk of getting cancer and kidney toxicity. We failed to test our drinking water for the contaminant between 01/01/2008 - 12/31/2016. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Total Trihalomethanes (TTHM)

Some People who drink water containing trihalomethanes in excess of the MCL over many years my experience problems with liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer. Water samples showed that the amount of this contaminant in our drinking water was above its standard (MCL) for the period of 01/01/2016 to 12/31/2016. We also failed to submit our operational evaluation level report to our regulator. The report is needed to determine the best practices necessary to minimize possible future exceedances of TTHM.

Haloacetic Acids (HAA5)

Some People who drink water containing trihalomethanes in excess of the MCL over many years my experience problems with liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer. Water samples showed that the amount of this contaminant in our drinking water was above its standard (MCL) for the period of 01/01/2016 to 06/30/2016. We also failed to submit our operational evaluation level report to our regulator. The report is needed to determine the best practices necessary to minimize possible future exceedances of HAA5.

Public Notification Rule

The Public Notification Rule helps to ensure that the consumer will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water. We failed to adequately notify you, our drinking water consumers, about some of the above listed violations of the drinking water regulations.