2013 Annual Drinking Water Quality Report
Jackson County Water Company
Public Water System I.D. OK 2003306

We're very pleased to provide you with this year's Annual Drinking Water Quality 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. This report shows our water quality and what it means.

Our water source is ground water drawn from thirteen wells located east of Blair produced from terrace deposits and the surface water is purchased from the City of Altus who draws their water from Tom Steed reservoir. An analysis of contamination susceptibility of our source water has been done. The analysis showed that our water's susceptibility to contamination is MODERATE. We are working on the source water protection plan. Once it is completed the source water protection plan will be available in our office. Information such as potential sources of contamination is listed in the plan.

If you have any questions about this report or concerning your water utility, please contact David Parsons at (580)563-2374. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the second Tuesday of each month at 7:00 AM at the Friendship Inn Restaurant in Altus, Oklahoma.

Jackson County Water Company routinely monitors for contaminants 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, **2013.** (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 contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

WATER QUALITY DATA TABLE

The table below lists all of the drinking water contaminants we detected for the calendar year of this report. The presence of 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 in the calendar year of the report.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following 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) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
Maximum Contaminant Level (MCL) - 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 - 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.

WATER QUALITY DATA

Contaminant	Violation Yes/No	Highest Level Detected	Range Detected	MCL	MCLG	Likely Source of Contamination
Microbiological Contaminants						
Total Coliform Bacteria (System takes <40 monthly samples)	N	0		5% positive	0	Naturally present in the environment
Inorganic Contaminants						
Barium (ppm)	N	0.236	0.087 - 0.236 2013	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper (ppm)	N	0.11 2013		AL=1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Nitrate - NO_3 (ppm) (as Nitrogen)	N	9	0.8 -9.39 2013	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Fluoride (ppm)	N	0.14	0 - 0.14	4.0	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Volatile Organic Contaminants						
Haloacetic Acids (HAA5) (ppb)	N	48.4	1.51-48.4	60	N/A	By-product of drinking water chlorination
TTHM [Total trihalomethanes] (ppb)	Y	207	70.8-207	80	N/A	By-product of drinking water chlorination

RADIOACTIVE CONTAMINANTS

Beta/photon emitters (mrem/yr)	N	1.69	0.125 – 1.69	4	0	Decay of natural and man-made deposits.
Combined Radium (pci/L)	N	0.749	0.033 – 0.749	5	0	Erosion of natural deposits.

Gross alpha excluding radon and uranium (pci/L)	N	1.29	0.344 – 1.29	15	0	Erosion of natural deposits.

What does this mean?

The table shows that our system had one violation during the year. The violation was for exceeding the Total Trihalomethane **(TTHM) limit of 80 ppb.**

What happened?

This is a continuation of a problem from water purchased from the City of Altus. More information can be found on the attached CCR report from Altus. The potential adverse health effects are some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer. The noted violations did not pose an immediate risk. If they had, you would have been notified immediately.

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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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).

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).

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. Jackson County Water Company 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.*

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a significant increased risk of having the described health effect.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

Please call our office if you have questions.

We at Jackson County Water Company work around the clock to provide top quality water to every tap, said David Parsons, Manager.

City of Altus

Pubic Water System I.D. 1011501

Annual Water Quality Report

2013

We're pleased to present this year's Annual Water Quality Report. This report is designed to inform you about the water quality and services we provide. We want you to be aware of our continuing efforts to improve the water treatment process and protect our water resources. Our goal is to provide a safe high quality, and dependable supply of drinking water. We are committed to insuring the quality of your water. Our primary water source is The Mountain Park Conservancy District, which provides untreated water from Tom Steed Reservoir. The reservoir is located in southern Kiowa County approximately six miles north of Snyder, Oklahoma. Our emergency source of water is the Altus Reservoir, which is recharged from Lake Lugert-Altus located in eastern Greer and northwestern Kiowa County approximately 18 miles north of Altus. Both reservoirs are classified by the Environmental Protection Agency as "surface water sources". The Mountain Park Conservancy District has a source water protection plan with a copy available at our office that shows the vulnerability of our source water as HIGH. Additional information such as potential sources of contamination is listed. This plan is available for public view upon written request submitted to the office of Public Works at 509 S. Main, Altus OK 73521.

This report indicates the quality of our water and what it means to you.

Este informe contiene información muy importante sobre su aqua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

If you have any questions about this report or your water utility, please contact Gene Leister, Water Treatment Supervisor at 481-2270. We want all our customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the first and third Tuesdays of each month at 6:30 p.m. in the city council chambers.

Altus Water Treatment personnel routinely monitor the drinking water for constituents according to Federal and State laws. The table below shows results of our monitoring for the period of January 1st to December 31st, 2013. 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.**

In the table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

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City of Altus Public Water Supply 2013 Lab Results I.D. # OK1011501 All test results expressed has milligrams per liter (mg/L)						
Contaminant	**Violation Yes/No**	**Highest Level Detected**	**Range Detected**	**MCL**	**MCLG**	**Likely Source of Contamination**
Microbiological Contaminants						
Total Coliform Bacteria	No	0		5 %	0	Naturally present in the environment
Turbidity (NTU)	No	TT=0.27 NTU Less than 0.3 NTU's in 100% of monthly samples.	0.02-0.27	TT=5 NTU TT=Less than 0.3 NTU's in 95% of monthly samples	N/A	Soil runoff
Volatile Organic Contaminates						
TTHM (Total trihalomethanes (ppm)	Yes	.183 Highest quarterly avg.	.091-.279	.080	0	By-product of drinking water chlorination
THAA5 (Total haloacetic acids) (ppm)	No	.032 Highest quarterly avg.	.003-.057	.060	0	By-product of drinking water chlorination
Inorganics Contaminates						
Chlorites (ppm)	No	.54	.0-.54	1.0	0.8	Additive used to control microbes
Fluoride (ppm)	No	.64	0.13-.64	4	4	Erosion of natural deposits, discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth.
Nitrate (ppm) (as Nitrogen)	No	.45	.45-.45	10	10	Runoff from fertilizer use, erosion of natural deposits.
Control of DBP precursors TOC (Avg. Yearly Ratio)	Yes	.58	.55-.84	Minimum removal ratio 1.0	N/A	Naturally present in the environment

Unregulated Contaminant Monitoring Rule

Unregulated contaminants are those for which the EPA has not established drinking water standards.
The purpose of unregulated contaminate monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Contaminants	Average for the year	Range of detections	Likely source of contamination
Chlorate	.406	.360-.476	Disinfection By-Product.
Chromium, Hexavalent	.000063	0-.000117	Industrial By-Product. Stainless steel, textile dye, wood preservation, etc...
Chromium	.000456	0-.000694	Industrial By-Product. Stainless steel and chrome plating.
Molybdenum	.00368	.00302-.00422	Industrial By-Product. Steel alloys and armor plating.
Strontium	.609	.535-.686	Naturally found in the environment.
Vanadium	.0076	.00520-.011	Compounds of vanadium found naturally in the environment.
Bromochloromethane	.000061	0-.000061	Used in fire extinguishers until 1969. Production was banned January 1, 2002.

What does this mean?

This table shows our system had two violations during the year. The violations were for exceeding the Total Trihalomethane (TTHM) limit of 80 ppb, Total Organic Carbon (TOC) removal requirement of at least 25%.

TTHM/TOC violation
What happened?
The drinking water produced during the past 12 months has had elevated levels of THMs above the established EPA standard. The cause is primarily attributable to deterioration of key components of the treatment process. Additionally the THM problem has been extremely difficult to successfully treat during the past 12-18 months due to higher than normal organic carbon levels caused by current drought conditions. Plans for both interim and permanent corrective measures include substantial alterations to the treatment plant as well as making major repairs and replacement of critical equipment and processes are underway. These improvements are planned to achieve environmental compliance in the near future.

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 maximum contaminate level (MCL) may lead to adverse health effects to the liver, kidney or nervous system and may lead to an increased risk of cancer.

The noted violations did not pose an immediate risk. If they had, you would have been notified immediately. However, some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of cancer.

What is being done?

- Lower disinfection levels as practical.
- Intensify surveys of distribution system for potential problem areas, e.g., poor circulation, dead ends, etc.
- Inspection and possible cleaning of finished water storage facilities.
- Continue working with our engineering consultant to design additions, repairs and alterations to the plant to bring finished water quality back into and maintain compliance going forward.

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Thank you for allowing us to continue providing your family with clean, quality water. In order to maintain a safe and dependable water supply we continually make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. We appreciate your support and understanding. For more information, please contact Gene Leister, Water Treatment Plant Supervisor, at 481-2270. Written inquiries should be addressed to City of Altus, Attn: Gene Leister 509 S. Main, Altus, Oklahoma 73521

* Oklahoma Department of Environmental Quality Guidance dated 26 March, 2008.