

July 25, 2016

SUBJECT: CONSUMER CONFIDENCE REPORT

Dear Water System Customers and Consumers:

The United States enjoys one of the best supplies of drinking water in the world. Nevertheless, many of us who once gave little or no thought to the water that comes from our taps are increasingly asking question about the safety of our drinking water.

Congress passed the Safe Drinking Water Act (SDWA) in 1974 and gave the United States Environmental Protection Agency (USEPA) the job of making rules, the National Primary Drinking Water Regulations (NPDWR), to ensure that drinking water in the U.S. is safe.

In 1996, Congress passed amendments to the SDWA that require drinking water systems to give consumers important information about their water, including where it comes from, what is in the water, and how your water quality compares with federal standards. These reports are called "Consumer Confidence Reports".

Enclosed is our annual "Consumer Confidence Report". This report contains data from water samples collected during or prior to 2013. The United States Environmental Protection Agency (USEPA) has established minimum testing schedules for public water systems. The frequency of monitoring water quality is based in part on the size of the system, the water source, and historical data on water quality.

Providing safe and reliable drinking water is the highest priority for the City's Water Department. Our employees take pride in delivering water to your tap that meets or is better than the standards required by state and federal regulations. As you will see in the enclosed information, the City of Yoakum's water exceeds state and federal requirements for drinking water quality.

### **Questions and Public Participation Opportunities**

For more information regarding this report, you may call Kevin Coleman, City Manager, at 293-6321. Also, the City Council meets on the second Tuesday of each month at 6:00 P.M. in the Council Room at City Hall, 808 South Hwy 77-A.



# Annual Drinking Water Quality Report

TX0620003

CITY OF YOAKUM

Annual Water Quality Report for the period of January 1 to December 31, 2015

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

For more information regarding this report contact:

Name Kevin M. Coleman, City Manager

Phone 361-293-6321

CITY OF YOAKUM is Ground Water and comes from the Gulf Coast Aquifer

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (361)293 6321.

## Sources of Drinking Water

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 pickup 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. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

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 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.

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.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact the system's business office.

You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer; persons who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders, can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care providers. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* 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. We are responsible for providing high quality drinking water, but we 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>.

## Information about Source Water Assessments

The TCEQ completed an assessment of your source water & results indicate some of your sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility & previous sample data. Any detections of these contaminants may be found in this consumer confidence report. For more information on source water assessments and protection efforts at our system, contact Kevin Coleman, City Manager.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL:  
<http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=>

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: <http://dww.tceq.texas.gov/DWW>

Source Water Name	Type of Water	Report Status	Location
BRUSHY CREEK 6A / REPLACES WELL 6	GW	<u>active</u>	<u>Water Works Road</u>
BRUSHY CREEK 7	GW	<u>active</u>	<u>Dunn St</u>
CITY PARK 4	GW	<u>active</u>	<u>N. Park Road</u>
CITY PARK 5	GW	<u>active</u>	<u>N. South Street</u>

**Coliform Bacteria**

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample.	2		1	Y	Naturally present in the environment.

**Lead and Copper**

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

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	9/27/2013	1.3	1.3	0.329	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	9/27/2013	0	15	3.44	1	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

**Water Quality Test Results**

- Definitions: The following tables contain scientific terms and measures, some of which may require explanation.
- Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.
- Maximum Contaminant Level or MCL: 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 or MCLG: 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.
- Maximum residual disinfectant level or MRDL: 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.
- Maximum residual disinfectant level goal or MRDLG: 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.
- MFL: million fibers per liter (a measure of asbestos)
- na: not applicable.
- NTU: nephelometric turbidity units (a measure of turbidity)
- pCi/L: picocuries per liter (a measure of radioactivity)

## Water Quality Test Results

ppb:	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
ppm:	milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.
ppt	parts per trillion, or nanograms per liter (ng/L)
ppq	parts per quadrillion, or picograms per liter (pg/L)

## Disinfectant

We use Gaseous Chlorine (CL<sub>2</sub>) to disinfect the water. our minimum sample residual was .72 mg/l and the maximum was 3.14 mg/l. the average sample for the year was 1.77 mg/l. The minimum residual allowed is 0.2 mg/l and the maximum is 4.0 mg/l.

## Water Loss

The City of Yoakum is required to submit a water loss audit to the Texas Water Development Board annually and now to report the water loss on the Consumer Confidence Report. In the water loss submitted to the Texas Water Development Board for the time period of Jan - Dec 2015, our system lost an estimated 31,019,766 gallons of water. This loss is based on water that was pumped to the system from the plants but not actually billed and sold to the residents and businesses. Part of it is accounted for because of fire hydrant flushing, fire fighting, and a formula provided by the Water Development Board to estimate the volume of water lost from water leaks, but it still goes down as water loss. If you have questions about the water loss audit, contact the City of Yoakum Water Department at 361-293-6321.

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)*	2015	5	4.5 - 4.5	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2015	19	18.9 - 18.9	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2014	2.3	2.1 - 2.3	0	10	ppb	N	Erosion of natural deposits.
Barium	2014	0.154	0.103 - 0.154	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2014	0.48	0.34 - 0.48	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2015	0.41	0.05 - 0.41	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	04/21/2014	6.4	0 - 6.4	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	04/21/2014	5.6	5.6 - 5.6	0	50	pCi/L*	N	Decay of natural and man-made deposits.
Combined Radium 226/228	04/21/2014	2.6	2.6 - 2.6	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	04/21/2014	6.2	6.2 - 6.2	0	15	pCi/L	N	Erosion of natural deposits.

\*EPA considers 50 pCi/L to be the level of concern for beta particles.



## Violations Table

### E. coli

Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITOR GWR TRIGGERED/ADDITIONAL MAJOR	12/01/2015	12/31/2015	We failed to collect follow-up samples within 24 hours of learning of the total coliform-positive sample. These needed to be tested for fecal indicators from all sources that were being used at the time the positive sample was collected.

### Total Coliform

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Violation Type	Violation Begin	Violation End	Violation Explanation
MCL (TCR), MONTHLY	12/01/2015	12/31/2015	Total coliform bacteria were found in our drinking water during the period indicated in enough samples to violate standard.