

## Annual Drinking Water Quality Report **2016**

TX1690023

AMON G CARTER LAKE WSC

Annual Water Quality Report for the period of January 1 to December 31, 2016

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:

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AMON G CARTER LAKE WSC is Purchased Surface Water

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (940-872-5505

### 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 pick up 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>.

The source of our drinking water is the City of Bowie, which is surface water. It comes from Amon G. Carter Lake, located in Montague County. The Texas Commission on Environmental Quality (TCEQ) completed an assessment of your source water and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detections of these contaminants may be found in this Consumer Confidence Report. For more information on our source water assessments and protection efforts for the City of Bowie, please contact Jerry Sutton, at the City's water processing plant.

Information about Source Water Assessments

A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus source water protection strategies.

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
OPEN I/C WITH CITY OF BOWIE	SWP FROM TX1690001	SW	



## 2016 Regulated Contaminants Detected

### 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	2016	1.3	1.3	1.1864	1	ppm	Y	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2016	0	15	28.7	4	ppb	Y	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.

**Level 1 Assessment:**

A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

**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.

**Level 2 Assessment:**

A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

**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.

## Water Quality Test Results

mrem:	millirems per year (a measure of radiation absorbed by the body)
NTU	nephelometric turbidity units (a measure of turbidity)
pCi/L	picocuries per liter (a measure of radioactivity)
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.
Treatment Technique or TT:	A required process intended to reduce the level of a contaminant in drinking water.
ppt	parts per trillion, or nanograms per liter (ng/L)
ppq	parts per quadrillion, or picograms per liter (pg/L)

# 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)	2016	22	1.3 - 40.7	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2016	37	17.9 - 27.1	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
Nitrate [measured as Nitrogen]	2016	0.103	0.103 - 0.103	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite [measured as Nitrogen]	2016	1	0 - 0.745	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.



Information on this page is provided by our host city, the City of Bowie, in order to fulfill our obligations for total reporting:

#### VOLATILE ORGANIC CONTAMINANTS

Contaminant (Units)	Violation	Collection Date	Average Level Detected	Range of Levels Detected	MCLG	MCL	Likely Source of Contamination
Xylenes (ppm)	N	2015	0.00096	0.00096-0.00096	10	10	Discharge from petroleum factories; Discharge from chemical factories from

#### TURBIDITY

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	0.28 NTU	N	Soil runoff
Lowest monthly % meeting limit	0.3 NTU	100%	N	Soil runoff

#### N/A

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violations section.

#### INORGANIC CONTAMINANTS

Contaminant (Units)	Violation	Collection Date	Highest Single Sample	Range of Levels Detected	MCLG	MCL	Likely Source of Contamination
Barium (ppm)	N	2016	0.051	0.051-0.051	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (ppb)	N	2016	0.89	0.89-0.89	100	100	Discharge from steel and pulp mills; Erosion of natural deposits
Cyanide (ppb)	N	2016	191	191-191	200	200	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride (ppm)	N	2016	0.1	0.0785-0.0785	4	4.0	Erosion of natural deposits, water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen) (ppm)	N	2016	0.346	0.346 - 0.346	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

#### RADIOACTIVE CONTAMINANTS

Contaminant (Units)	Violation	Collection Date	Highest Single Sample	Range of Levels Detected	MCLG	MCL	Likely Source of Contamination
Beta/photon emitters (pCi/L)*	N	2016	5.8	5.8-5.8	0	50	Decay of natural and man-made deposits
Radium 226/228 (pCi/L)	N	2016	1.5	1.5-1.5	0	5	Erosion on natural deposits

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

#### Disinfectants

Contaminant (Units)	Violation	Collection Date	Average Level Detected	Range of Levels Detected	MRDLG	MRDL	Likely Source of Contamination
Chlorine & Ammonia (ppm)	N	2016	.8	.8-1.4	4.0	4.0	Water additive used to control microbes



## Violations Table

Chlorine			
Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.			
Violation Type	Violation Begin	Violation End	Violation Explanation
1 Disinfectant Level Quarterly Operating Report (DLQOR).	01/01/2016	03/31/2016	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.

Consumer Confidence Rule			
The Consumer Confidence Rule requires community water systems to prepare and provide to their customers annual consumer confidence reports on the quality of the water delivered by the systems.			
Violation Type	Violation Begin	Violation End	Violation Explanation
2 CCR ADEQUACY/AVAILABILITY/CONTENT	07/01/2016	2016	We failed to provide to you, our drinking water customers, an annual report that adequately informed you about the quality of our drinking water and the risks from exposure to contaminants detected in our drinking water.

Lead and Copper Rule			
The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.			
Violation Type	Violation Begin	Violation End	Violation Explanation
3 FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2015	01/17/2017	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.
LEAD CONSUMER NOTICE (LCR)	12/30/2013	01/24/2017	We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results.
LEAD CONSUMER NOTICE (LCR)	12/30/2014	01/24/2017	We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results.
LEAD CONSUMER NOTICE (LCR)	12/30/2016	01/24/2017	We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results.
PUBLIC EDUCATION (LCR)	12/01/2016	01/26/2017	We failed to adequately educate you regarding the health problems associated with and sources of elevated lead levels in our water system.

1 - Tests were done but failed to meet the deadline. All tests were above acceptable

2 - We failed to include the city's reports, as we purchase their water. It was reformatted, and refiled with correct info.

3 - We continually complied with guidelines, there was a communications problem between TCEQ staff, and us. We have taken steps to improve communications with TCEQ and ourselves.

At no time was your drinking water not fit for consumption except for those maintenance and repair issues where a boil order was issued.