



2017 Annual Drinking Water Quality Report

(Consumer Confidence Report)

City of Carthage

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Carthage, Texas 75633
903-693-5616

Special Notice - Required language for ALL community public water supplies: You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immune-compromised persons such as those undergoing chemotherapy for cancer; those 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).

Our Drinking Water is Regulated

This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U.S., Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

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 and 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 treatment 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.
- Radioactive contaminants which can be naturally occurring or be the result of oil and gas production and mining activities.
- 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.

En Español

Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al teléfono (903) 693-5616 para hablar con una persona bilingüe en español.

Where do we get our drinking water?

Our drinking water is obtained from SURFACE and GROUND water sources. It comes from the following Lake/River/Reservoir/Aquifer: LAKE MURVAUL, WILCOX AQUIFER. A Source Water Susceptibility Assessment of your drinking water sources 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 our source water protection strategies. Some of this source water assessment information will be available later this year on Texas Drinking Water Watch at <http://dww.tceq.state.tx.us/DWWW/>. For more information on source water assessments and protection efforts at our system, please contact us.

All Drinking water may contain contaminants:

When drinking water meets federal standards there may not be any health-based benefits to purchasing bottled water or point of use devices. 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).

Public Participation Opportunities:

City Council meetings are held at City of Carthage offices located at 812 W Panola on the second and forth Mondays at 5:00 PM. Telephone inquiries are welcome. Contact Byron Roberts at (903) 693-5616. To learn about future public meeting (concerning your drinking water), or to request to schedule one, please call us.

Secondary Constituents

Many constituents (such as calcium, sodium, or iron), which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not EPA. These constituents are not causes for health concerns. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

Required Additional Health Information for 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. This water supply 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>.

About the following pages— The pages that follow list all of the federally regulated or monitored contaminants which have been found in your drinking water. The U.S.EPA requires water systems to test for up to 97 contaminants.

DEFINITIONS

Maximum Contaminant Level (MCL) -

The highest permissible level of a contaminant in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is not known or expected health risk. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) - The highest level of 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 (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 contamination.

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

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

ABBREVIATION

- NTU - Nephelometric Turbidity Units
- ppCi/l – picocuries per liter (a measure of radioactivity)
- ppb – Parts per billion, or micrograms per liter (ug/L)
- ppq – parts per quadrillion, or picograms per liter
- MFL-Million fibers per liter (a measure of asbestos)
- ppm – Parts per million, or milligrams per liter (mg/L)
- ppt – parts per trillion, or nanograms per liter

Regulated Contaminants

Year	Contaminant	Minimum/Maximum Level	MCL	MCLG	Unit of Measure	Violation	Source of Constituent
2017	Barium	0.03-0.03	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
2017	Nitrate [measured as Nitrogen]	0.22-0.22	10	10	ppb	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
2017	Flouride	0.0566-0.0566	4	4.0	ppb	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
2017	Haloacetic Acids (HAA5)*	10-19	60	0	ppb	N	Byproduct of drinking water disinfection
2017	Total Trihalomethanes (TThm)*	5.39-32.2	80	0	ppb	N	Byproduct of drinking water disinfection

Organic Contaminants

Maximum Residual Disinfectant Level								
Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Chemical
2017	Chloramines	2.74	.05	4.0	4.0	<4.0	Ppm	Disinfectant used to control microbes

Turbidity

Year	Contaminant	Highest Level Detected	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Source of Contaminant
2017	Turbidity	.03	100.00	0.3	NTU	Soil Runoff

Lead and Copper

Year	Constituent	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Violation	Source of Constituent
2017	Lead	1.8	0	15	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits
2017	Copper	0.0891	0	1.3	ppm	N	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservative

Total Organic Carbon

Total organic carbon (TOC) no health effects. The disinfectant can combine with TOC to form disinfection byproducts. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Byproducts of disinfection include trihalomethanes (THMs) and Haloacetic acids (HAA) which are reported elsewhere in this report. (*Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed.

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2017	Source Water	7.38	6.52	8.07	ppm	Naturally present in the environment
2017	Drinking Water	3.53	3.23	3.80	ppm	Naturally present in the environment
2017	Removal Ratio	51.44%	67.48 %	71.94%	% removal *	N/A

Total Coliform — Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy than many disease-causing organisms therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption. (*Two or more coliform found samples in any single month)

Year	Contaminant	Highest Monthly Number of Positive Samples	CL	Unit of Measure	Source of Contaminant
2017	Total Coliform Bacteria	0	*	Presence	Naturally present in the environment.

Fecal Coliform—Fecal Coliform bacteria and, in particular, E. Coli, are members of the coliform bacteria group originating in the intestinal tract or warm blooded animals and are passed into the environment through feces. The presence of fecal coliform bacteria (E Coli,) in drinking water may indicate recent contamination of the drinking water with fecal material. (*A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive.

Year	Contaminant	Total Number of Positive Samples	MCL	Unit of Measure	Source of Contaminant
2017	Fecal Coliform or E.coli	0	*	Presence	Human and animal fecal waste

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

LEAD CONSUMER NOTICE (LCR) 12/30/2013

Public Notification Rule

Violation End

2016

Violation Explanation

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.

The Public Notification Rule helps to ensure that consumers 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 (e.g., a boil water emergency),

Violation Type

PUBLIC NOTICE RULE LINKED TO

VIOLATION

Total Trihalomethanes (TTHM)

Violation Begin

05/08/2016

Violation End Violation Explanation

06/21/2016 We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.

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 systems, and may have an increased risk of getting cancer_

Violation Type Violation Begin Violation End

MCL, LRAA 01/01/2016 03/31/2016

06/14/2017 - TX1830001_2016_2017-06-14_12-59-09.PDF

Violation Explanation

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 period indicated.