

Important Health Information

Some of you may be more vulnerable than the general public to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly, or immuno-compromised persons such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing steroid treatments; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline at (800) 426-4791.

Where do we get our drinking water?

Our drinking water is obtained from surface and ground water sources. Some of our water is purchased from the City of Amarillo. In 2013, the surface water source from Lake Meredith was not used due to the drought. Both the City of Amarillo's and the City of Canyon's water supplies were furnished from ground water sources. Some of the City of Amarillo's water supply was stored in a reservoir and treated through their surface water treatment plant. The groundwater sources for our drinking water are the Ogallala and Dockum aquifers. The City of Amarillo publishes its own Water Quality Report. It can be viewed on their website at www.amarillo.gov or questions concerning their water quality may be addressed by contacting the Director of Utilities, P.O. Box 1971, Amarillo, TX 79105-1971, or (806) 378-4266.

Canyon Municipal Water System
301 16th St.
Canyon, TX 79015

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (806) 655-5011.

QUALITY

ANNUAL
WATER REPORT
Reporting Year 2014



Presented by Canyon Municipal Water System

Is my water safe?

Once again the City of Canyon is presenting our annual water quality report covering all drinking water testing performed during the 2013 calendar year. In 2013, your tap water met all Federal (USEPA) and State (Texas Commission on Environmental Quality, TCEQ) drinking water standards. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation and community education while continuing to serve the needs of all our water users. Please share with us your thoughts or concerns about the information in this report. After all, well-informed customers are our best allies.

For more information please contact:
Dan E. Reese, Public Works Director
City of Canyon
301 16th Street
Canyon, TX 79015
Phone: 806-655-5011
E-Mail: dreese@canyontx.com

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Why are there contaminants in my drinking water?

In order to ensure that tap water is safe to drink, USEPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health. All drinking water may reasonably be expected to contain at least small amounts of contaminants. The presence of these contaminants does not necessarily indicate that the water poses health risks.

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. Some of the contaminants that may be present in drinking water include: microbial contaminants, such as viruses and bacteria, that 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, urban stormwater 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 stormwater runoff, and septic systems; and radioactive contaminants, which can

be naturally occurring or be the result of oil and gas production and mining activities.

Other contaminants may be found in drinking water that could cause taste, odor or color problems. These types of contaminants are not necessarily causes for health concerns. For more information about taste, odor, or color of drinking water, please contact us at (806) 655-5011 or for more information on drinking water contaminants and potential health effects, you can call the EPA Safe Drinking Water Hotline at (800) 426-4791.

Source water assessment and its availability

Susceptibility for contamination of our water is mainly from agricultural practices. Fertilizers, pesticides, other agricultural chemicals and runoff from feedlots are potential sources of contamination. Other potential sources of contamination in our area result from oil field activities, septic systems and abandoned water wells. To help protect our ground water sources, the City has an ongoing wellhead protection program, which adheres to TCEQ standards and guidelines to protect against any pollution entering the aquifers. The TCEQ has furnished all public water systems with a Source Water Susceptibility Assessment (SWSA). Results of the City's assessment can be viewed on the State Drinking Water Watch website at www.tceq.texas.gov/DWW.

Community Participation

You can voice your opinions concerning our water system at meetings of the Canyon City Commission. Typically, these meetings are held on the first and third Mondays of each month at 5:30 pm at City Hall, located at 301 16th Street. For more information on City Commission meetings, contact the City Manager's office at (806) 655-5000.

Water Quality Data Table

During the past year, the City has taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The table below lists only those contaminants that were detected in the water during their most recent sampling. Removing all contaminants from our water would be extremely expensive, and in most cases, would not provide increased protection of public health. In fact, some contaminants are beneficial in small amounts. The EPA and/or the State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions.

REGULATED SUBSTANCES

Disinfectants & Disinfection By-Products

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AVERAGE LEVEL	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorine (as Cl ₂) (ppm)	2013	4	4	0.88	0.2 - 1.5	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	2013	60	NA	4.2	ND - 8.8	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	2013	80	NA	7.9	ND - 12.6	No	By-product of drinking water disinfection
*Chloroform (ppb)	2013	NR	NR	0.71	ND - 4.4	No	By-product of drinking water disinfection
*Bromoform (ppb)	2013	NR	NR	2.4	ND - 13.3	No	By-product of drinking water disinfection
*Bromodichloromethane (ppb)	2013	NR	NR	1.8	ND - 6.2	No	By-product of drinking water disinfection
*Dibromochloromethane (ppb)	2013	NR	NR	2.6	ND - 11.2	No	By-product of drinking water disinfection

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

INORGANIC SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AVERAGE LEVEL	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2013	2	2	0.17	0.13 - 0.20	No	Discharge of drilling wastes; Discharge from metal refineries;
Fluoride (ppm)	2013	4	4	2.79	2.79 - 2.79	No	Naturally occurring element that promotes strong teeth;
Nitrate [measured as Nitrogen] (ppm)	2013	10	10	1.50	1.27 - 1.73	No	Runoff from fertilizer use; Leaching from septic tanks; Erosion of natural deposits
Nitrite [measured as Nitrogen] (ppm)	2013	1	1	ND	ND - ND	No	Runoff from fertilizer use; Leaching from septic tanks; Erosion of natural deposits

ORGANIC SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AVERAGE LEVEL	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Total Organic Carbon (ppm)	2013	TT	NA	0.38	0.05 - 1.03	No	City of Amarillo
Turbidity (NTU)	2013	TT	NA	0.30	ND - 0.30	No	Soil Erosion, City of Amarillo
Turbidity (Lowest monthly percent of samples meeting limit)	2013	0.3	NA	99.1% *	NA	No	City of Amarillo

*99.1% of the samples were below the TT value of 0.3. A value less than 95% constitutes a TT violation. The highest single measurement was 0.38. Any measurement in excess of 1 is a violation unless otherwise approved by the State. Turbidity is the measure of the cloudiness in the water. It is monitored to determine the effectiveness of a filtration system.

MICROBIOLOGICAL SUBSTANCES (Bacteria in Tap Water)

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Total Coliform (positive samples/month)	2013	1	0	1	0 - 1	No	One detect by the City of Canyon in 180 samples. There were 4 detects in a total of 1,535 samples by the City of Amarillo.

RADIOACTIVE SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2013	15	0	17.4	17.4 - 17.4	No	Erosion of natural deposits
Beta/photon emitters (pCi/L)	2013	50	0	7.6	7.6 - 7.6	No	Decay of natural and man-made deposits.
Radium (Combined 226/228) (pCi/L)	2013	5	0	1.7	ND - 1.7	No	Erosion of natural deposits
Uranium (pCi/L)	2013	30	0	5.7	ND - 13	No	Erosion of natural deposits

LEAD AND COPPER

Thirty tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG [MRDLG]	AMOUNT DETECTED (90TH %TILE)	SITES ABOVE AL /TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2013	1.3	<1.3	0.221	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)	2013	15	0	4.1	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits

OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Calcium (ppm)	2013	18.3	18.3	Abundant naturally occurring element
Chloride (ppm)	2013	5	5	Abundant naturally occurring element; Used in water purification; By-product of oil field activity
Total Hardness as CaCo₃ (ppm)	2013	220	131 - 266	Naturally occurring Calcium and Magnesium
Iron (ppm)	2013	ND	ND	Erosion of natural deposits: Iron or steel water delivery equipment or facilities
Total Alkalinity (ppm)	2013	261	261	Naturally occurring soluble mineral salts
Total Dissolved Solids (ppm)	2013	340	340	Total dissolved mineral constituents in water

What's a Cross-connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (back pressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (back siphonage).

Outside water taps and garden hoses tend to be the most common source of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Definitions

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

MCL: Maximum Contaminant Level: 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.

MCLG: Maximum Contaminant Level Goal: 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.

MNR: Monitored Not Regulated

MPL: State Assigned Maximum Permissible Level

MRDL: Maximum residual disinfectant level. 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.

MRDLG: Maximum residual disinfection level goal. 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.

NA: not applicable

ND: Not detected

NR: Monitoring not required, but recommended.

NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of a filtration system.

pCi/L: picocuries per liter (a measure of radioactivity).

ppb: parts per billion, or micrograms per liter (µg/L)

ppm: parts per million, or milligrams per liter (mg/L)

positive samples/month: Number of samples taken monthly that were found to be positive.

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

Variations and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.



Lead in home plumbing

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. The City of Canyon 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>. The City monitors the water for lead levels every three (3) years. Thirty (30) samples are taken throughout the city. The last sampling in 2013 indicated that none of the samples taken exhibited lead amounts above the EPA mandated action level.