ADDITIONS/CORRECTIONS TO 2016 WATER QUALITY REPORT

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2016	4.6	4.6 - 4.6	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2016	0.1	0.089 - 0.1 corrected rounding	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2016	3.5	0 - 3.5	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	08/20/2014	2.46	2.46 - 2.46 source water only	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]	2016	2	0.932 - 2.21 corrected rounding	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	2016	7.1	5.9 - 7.1	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	02/25/2014	7.1	6.1 - 7.1	0	50	pCi/L*	N	Decay of natural and man-made deposits.

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

Combined Radium 226/228	02/25/2014	0.71	0 - 0.71	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	02/25/2014	13.3	5 - 13.3	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	02/25/2014	12.2	8.6 - 12.2	0	30	ug/l	N	Erosion of natural deposits.
Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
2,4-D	02/25/2014	0.129	0 - 0.129	70	70	ppb	N	Runoff from herbicide used on row crops.
Picloram	02/25/2014	0.365	0 - 0.365	500	500	ppb	N	Herbicide runoff.

Dear City of Canyon Water Customer,

It has come to our attention the 2016 Water Quality Report that was distributed with the June 1, 2017 utility bill failed to report the above listed substances that we previously tested for. As you can see, the tests for these substances showed no violations. In 2016, your tap water met all Federal (USEPA) and State (Texas Commission on Environmental Quality, TCEQ) drinking water standards.

In addition, there were discrepancies in the way we reported the ranges of levels detected for Nitrate & Barium due to rounding (please see above). We have also corrected the range for fluoride to include only the source water testing (the range shown in the CCR included tap water results as well, which was explained in the original Water Quality Report). For reference, the original 2016 Water Quality Report can be found online at http://tx-canyon.civicplus.com/DocumentCenter/View/2649.

We continue to be dedicated to producing drinking water that meets all state and federal standards. Thank you for being a valued customer ,if you have thoughts or questions we invite you to share them with us.

Sincerely,

Dan E. Reese, Public Works Director
Phone 806-655-5011
E-Mail: dreese@canyontx.com

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

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 Drinking Water 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. Both the City of Amarillo's and the City of Canyon's water supplies were furnished from ground and surface 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 http://amarillo.gov/departments/utilities/pdf/2017_Water_Quality_Report-Final_Revised.pdf or questions concerning their water quality may be a addressed by contacting the Director of Utilities, P.O. Box 1971, Amarillo, TX 79105-1971, or (806) 378-6028.

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

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

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ANNUAL WATER QUALITY REPORT

Reporting Year 2016

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 2016 calendar year. In 2016, 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.

city of CANYON TEXAS

Presented by **Canyon Municipal Water System**

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

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.

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/l) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The source water provided by Canyon Municipal Water System has an average fluoride concentration of 3.4 mg/l. The City took 20 samples in the distribution system from October 2014 thru April 2015 and the average fluoride concentration was 1.72 mg/l. This lower fluoride concentration is due to the blending of the water from the City of Amarillo, and is more indicative of the water at your tap.

Dental fluorosis, in its moderate or severe forms, may result in a brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.

Drinking water containing more than 4 mg/L of fluoride (the U.S. Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4mg/l of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/l because of the above mentioned potential cosmetic dental problem.

For more information, please call the Canyon Municipal Water System at 806-655-5011. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-800-NSF-MARK (800-673-6275).

Source water assessment and its availability

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 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.

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 http://dww2.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 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. The "year sampled" column indicates the year of the most recent testing. 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 Cl2) (ppm)	2016	4.0	0.2-4.0	1.0	0.9-1.1	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	2016	60	NA	9.1	ND-13.5	No	By-product of drinking water chlorination
Total Trihalomethanes (TTHMs) (ppb)	2016	100	NA	23.9	ND-56.2	No	By-product of drinking water disinfection
***Chloroform** (ppb)	2016	MNR	MNR	3.6	ND-6.1	No	By-product of drinking water disinfection
***Bromoform** (ppb)	2016	MNR	MNR	5.7	ND-13.5	No	By-product of drinking water disinfection
***Bromodichloromethane** (ppb)	2016	MNR	MNR	7.2	ND-13.6	No	By-product of drinking water disinfection
***Dibromochloromethane** (ppb)	2016	MNR	MNR	9.5	ND-24.5	No	By-product of drinking water disinfection

*Unregulated contaminates 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 contaminates in drinking water and whether future regulation is warranted.

INORGANIC SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL	MCLG	AVERAGE LEVEL	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2016	2	<2	0.1	0.1-0.1	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	2014	4	<4	3.4	1.8-3.9	No	Naturally occurring element that promotes strong teeth;
Nitrate [measured as Nitrogen] (ppm)	2016	10	<10	1.6	0.9-2.2	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite [measured as Nitrogen] (ppm)	2015	1	<1	ND	ND	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

ORGANIC SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL	MCLG	AVERAGE LEVEL	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Total Organic Carbon (ppm)	2016	TT	N/A	1.1	0.01-1.8	No	City of Amarillo
Turbidity (NTU)*	2016	TT	N/A	0.45 max	N/A	No	Soil Erosion, City of Amarillo
Turbidity (Lowest monthly percent of samples meeting limit)*	2016	0.3	N/A	95.6%	N/A	No	City of Amarillo

Total Organic Carbon has no health effects. Disinfectant may combine w/ TOC to form disinfection by-products (HAA5 & TTHM).
*95.6% of the turbidity samples were below the TT value of 0.3. A value less than 95% constitutes a TT violation. Turbidity is the measure of the cloudiness in the water. It is monitored to determine the effectiveness of a filtration system. These organic substances are not monitored by the City of Canyon, but reported by the City of Amarillo as required for surface water treatment.

MICROBIOLOGICAL SUBSTANCES (Bacteria in Tap Water)

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Total Coliform (positive samples per month)	2016	< 1	0	0	N/A	No	0 detects by the City of Canyon in 180 samples. There were 4 detects in a total of 1602 samples by the City of Amarillo.

LEAD AND COPPER

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	SITES EXCEEDING AL	90TH PERCENTILE DETECTED	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2016	1.3	0 of 30	0.15	No	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)	2016	15	0 of 30	1.6	No	Corrosion of household plumbing systems; Erosion of natural deposits

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

OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AVG. AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Calcium (ppm)	2016	42.6	23.5-35.5	Abundantly naturally occurring element
Chloride (ppm)	2014	16.8	6.2-120	Abundantly naturally occurring element; used in water purification; By-product of oil field activity
Total Hardness as CaCo3 (ppm)	2016	272.5	272-273	Naturally occurring Calcium and Magnesium
Iron (ppm)	2016	0.04	0.02-0.05	Erosion of natural deposits; Iron or steel water delivery equipment of facilities
Total Alkalinity (ppm)	2014	253	224-261	Naturally occurring soluble mineral salts
Total Dissolved Solids (ppm)	2014	357	321-430	Total dissolved mineral constituents in water

Water Conservation, Drought Contingency and Water Audits

The City of Canyon is continuously striving to increase our water use efficiency and closely monitor our own water usage. The matter of water conservation is something that we can all be better aware of. Education and public awareness is key when it comes to reaching our conservation goals. There are many resources out there to assist you in learning more about water conservation. Please visit our website, www.canyontx.com, for some helpful tips. Also, you can view our state required water conservation and drought contingency plans on the website as well. These can be seen in our Code of Ordinances, Chapters 52 and 53.

Even though the drought has lessened somewhat, the City of Canyon remains in Stage 1 of our drought contingency plan. The main focus of Stage 1 of the plan is to encourage voluntary water conservation. If drought conditions intensify, further stages of our plan could be enacted, and outdoor irrigation restrictions could be required. As a Canyon water customer, we would ask you to do your part in helping us to conserve water to better increase the life of our water resources.

Over the last few years, the Texas Legislature has focused more on water resource planning than in the past. Some legislation has been passed requiring public water systems to better monitor and report their water production and usage. Water audits are now being performed annually by the City and water systems of our size and larger. In the water loss audit submitted to the Texas Water Development Board for the time period of January through December 2016, our system estimated that 69,000,000 gallons of water was lost. This volume relates to approximately 8% of the total water produced and purchased. If you have any questions concerning the water audit, contact the Public Works Department at (806) 655-5011.

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 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

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 (ug/L)

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

positive samples per 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.

Variances 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 2016 indicated that none of the samples taken exhibited lead amounts above the EPA mandated action level.