

2017 Consumer Confidence Report for Public Water System CITY OF LAMESA

This is your water quality report for January 1 to December 31, 2017

CITY OF LAMESA provides surface water and ground water from 11 City owned wells pumping from the Ogallala Aquifer as well as from Lake Meredith in Roberts County through the Canadian River Municipal Water Authority.

Estes reporte incluye información importante sobre el agua para tomar. Para Asistencia en española, favor llamar al telefono 806-872-4327 or 806-332-9036.

Definitions and Abbreviations

Definitions and Abbreviations

The following tables contain scientific terms and measures, some of which may require explanation.

Action Level:

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

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.

Avg:

Regulatory compliance with some MCLs are based on running annual average of monthly samples.

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.

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 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)

mrem:

millirems per year (a measure of radiation absorbed by the body)

na:

not applicable.

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.

ppq

parts per quadrillion, or picograms per liter (pg/L)

Definitions and Abbreviations

ppt	parts per trillion, or nanograms per liter (ng/L)
Treatment Technique or TT:	A required process intended to reduce the level of a contaminant in drinking water.

Information about your 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>.

'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 drinking water provided by your community water system **City of Lamesa** has a fluoride concentration of **1.46 mg/L**.'

'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 fluoride levels in your drinking water exceed 2mg/L because of cosmetic dental problems.

'For more information, please call **Dionicio Garza Jr. of the City of Lamesa at 806-872-4327 or 806-332-9036**. 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 1-877-8-NSF-HELP.'

Information about Source Water

CITY OF LAMESA purchases water from LUBBOCK PUBLIC WATER SYSTEM. LUBBOCK PUBLIC WATER SYSTEM provides purchase surface water from wells supplied on the Ogallala Aquifer and Lake Meredith located in Roberts County.

'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 is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system contact:

Dionicio Garza Jr. of the City of Lamesa at 806-872-4327 or 806-332-9036.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	08/16/2016	1.3	1.3	0.36	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead	08/16/2016	0	15	1.5	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

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
10 - MATLOCK TRACK	MATLOCK TRACK GW	Y	N 32°.49.02 W 101°.59.38
11 - MATLOCK TRACK	MATLOCK TRACK GW	Y	N 32°.48.976 W 101°.59.752
13 - MATLOCK TRACK	MATLOCK TRACK GW	Y	N 32°.49.001 W 102°.00.159
17 - MATLOCK	MATLOCK TRACK GW	Y	N 32°.48.23 W 101°.59.28
18 - TYLER	-TYLER TRACK GW	Y	N 32°.46.36 W 101°.55.53
6 - BARTLETT TRACK	BARTLETT TRACK GW	Y	N 32°.48.112 W 101°.58.32
7 - BARTLETT TRACK	BARTLETT TRACK GW	Y	N 32°.48.332 W 101°.59.103
8 - BARTLETT TRACK	BARTLETT TRACK GW	Y	N 32°.48.200 W 101°.59.234
9 - MATLOCK TRACK	MATLOCK TRACK GW	Y	N 32°.48.926 W 101°.59.993
EAST WELL FIELD - 1	LEDC FM 827 GW	Y	N 32°.43.41 W 101°.55.53
EAST WELL FIELD - 2	LEDC FM 827 GW	_Y _	N 32°.43.44 W 101°.55.37
SW FROM CITY OF LUBBOCK	I/C WITH TX1520002 SW		UNKNOWN

2017 Water Quality Test Results

Disinfection By-Products	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2017	18	5.2 - 28.9	No goal for the total	60	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year'

Total Trihalomethanes (TTHM)	2017	66	12.3 - 75.8	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
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* The value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year'

Inorganic Contaminants	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2017	9	6.4 - 9.2	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.

While your drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Barium	2017	0.075	0.058 - 0.075	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2017	4.3	2.1 - 4.3	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	2017	2.3	1.58 - 2.33	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]	2017	10	2.93 - 9.83	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Selenium	2017	10	11 - 11	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
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Radioactive Contaminants	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2017	15	15 - 15	0	4	mrem/yr	N	Decay of natural and man-made deposits.

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

Gross alpha excluding radon and uranium	2017	11	11 - 18	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	2017	11	10.6 - 10.6	0	30	ug/l	N	Erosion of natural deposits.

Disinfectant Residual

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2017	1.50	.94 – 1.80	4	4	Mg/L	N	Water additive used to control microbes.

WATER QUALITY REPORT DATA, 2017

SUBSTANCE	MONITORING DATE*	MCL	HIGHEST LEVEL DETECTED	MCLG	RANGE	SOURCES OF CONTAMINATION	VIOLATION
SUBSTANCES REGULATED AT THE TREATMENT PLANT							
BETA/PHOTON EMITTERS	2017	50 pCi/L*	8.1 pCi/L	0	4.3 - 8.1 pCi/L	Decay of natural and man-made deposits	NO
ALPHA EMITTERS	2017	15 pCi/L	7 pCi/L	0	2 - 7 pCi/L	Erosion of natural deposits	NO
URANIUM	2017	30 ppb	4.9 ppb	0	3.5 - 4.9 ppb	Erosion of natural deposits	NO
ARSENIC	2016 -2017	10 ppb	4 ppb	0	1.1 - 4 ppb	Erosion of natural deposits; runoff from orchards	NO
BARIUM	2016 -2017	2 ppm	0.21 ppm	2 ppm	0.092 - 0.21 ppm	Erosion of natural deposits	NO
CHROMIUM	2016 -2017	100 ppb	4.1 ppb	100 ppb	0 - 4.1 ppb	Erosion of natural deposits	NO
SELENIUM	2016 -2017	50 ppb	2.7 ppb	50 ppb	0 - 2.7 ppb	Erosion of natural deposits	NO
CYANIDE	2017	200 ppb	163 ppb	200 ppb	0 - 163 ppb	Discharge from steel/metal, plastic, and fertilizer factories	NO
FLUORIDE	2017	4 ppm	1.46 ppm	4 ppm	0.71 - 1.46 ppm	Erosion of natural deposits	NO
NITRATE	2017	10 ppm	1.52 ppm	10 ppm	0.11 - 1.52 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion	NO
TURBIDITY	2017	TT = 5 NTU	0.28	0	0.03 - 0.28 NTU	Soil runoff	NO
		TT = % of samples <0.3 NTU	100%				
CHLORITE	2017	1 ppm	0.586 ppm	0.8 ppm	0 - 0.586 ppm	By-product of drinking water disinfection	
ADDITIONAL MONITORING							
ALUMINUM	2016 - 2017	0.05-0.2ppm^^	0.079 ppm	N/A	N/A	Water Treatment Chemical	
CHLORIDE	2017	300 ppm ^^	291 ppm	N/A	N/A	Naturally occurring	
SULFATE	2017	300 ppm ^^	125 ppm	N/A	N/A	Naturally occurring	
TOTAL DISSOLVED SOLIDS	2017	1000 ppm^^	777 ppm	N/A	N/A	Naturally occurring	
AMMONIA	2017	Not Regulated	0.92 ppm	N/A	N/A	Water Treatment Chemical	
CALCIUM	2016 - 2017	Not Regulated	54 ppm	N/A	N/A	Naturally occurring	
MAGNESIUM	2016 - 2017	Not Regulated	28 ppm	N/A	N/A	Naturally occurring	
POTASSIUM	2016 - 2017	Not Regulated	5.5 ppm	N/A	N/A	Naturally occurring	
SODIUM	2016 - 2017	Not Regulated	248 ppm	N/A	N/A	Naturally occurring	
NICKEL	2016 - 2017	Not Regulated	0.004 ppm	N/A	N/A	Erosion of natural deposits	
ZINC	2016 - 2017	5 ppm^^	0.003 ppm	N/A	N/A	Naturally occurring	
HARDNESS	2016 - 2017	Not Regulated	243 ppm	N/A	N/A	Naturally occurring	
CONDUCTANCE	2017	Not Regulated	1490 micromhos/cm	N/A	N/A	Naturally occurring	
TOTAL ALKALINITY	2017	Not Regulated	177 ppm	N/A	N/A	Naturally occurring	

The state allows us to monitor for some substances less than once per year because the concentrations of these substances do not change frequently.

Some of our data, though representative, are more than one year old.

*The MCL for beta/photon emitters is 4 mrem/year. The USEPA considers 50 pCi/L to be the level of concern for beta/photon emitters.

^^Secondary Constituent Levels set by the Texas Commission of Environmental Quality.