Annual Drinking Water Quality Report

TX1330001 CITY OF KERRVILLE

Annual Water Quality Report for the period of January 1 to December 31, 2018

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.
CITY OF KERRVILLE provides surface water from the Guadalupe River located in Kerrville, and ground water from the Lower Trinity Aquifer.

For more information regarding this report contact:

Name **Public Works Administrative Assistant**

Phone **(830) 257-8000**

CITY OF KERRVILLE IS SURFACE WATER & GROUND WATER

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (830) 257-8000.

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 EPAs 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.

Information about Source Water Assessments

The TCEQ completed an assessment of your source water and results indicate that some of your sources are susceptible to certain contaminates. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detections of these contaminates may be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, contact the **Public Works Administrative Assistant (830) 257-8000**.

Water Quality Test Results

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

YEAR 2018 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 Sampling	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation Y / N	Likely Source of Contamination
Copper	08/31/2016	1.3	1.3	0.12	0	ppm	N	Erosion of natural deposits. Leaching from wood preservatives; Corrosion of household plumbing systems.

Disinfection Residual

Disinfectant Type	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Violation Y/N	Likely Source of Contamination
Chlorine	2018	1.9	0.2	3.6	4.0	4.0	ppm	N	Water additive used to control microbes.

2017 Water Quality Test Results

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation Y / N	Likely Source of Contamination
Haloacetic Acids (HAA5)	2018	40	10.3 – 53.8	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2018	109	6.8 – 153	No goal for the total	80	ppb	Y	By-product of drinking water disinfection.

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

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation Y / N	Likely Source of Contamination
Barium	2018	0.0388	0.0388 – 0.0388	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2018	0.2	0.18 – 0.18	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]	2018	0.26	0 - 0.26	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation Y / N	Likely Source of Contamination
Beta/photon emitters	2018	11.5	6.9 – 11.5	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	2018	4	2.68 – 5.41	0	5	pCi/L	N	Erosion of natural deposits.
Uranium	2018	4	3.4 – 4.6	0	30	ug/l	N	Erosion of natural deposits.
Gross Alpha, Excluding Radon & Uranium	2018	12	9 – 12	0	15	pCi/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**
Dalapon	2018	1.3	0 – 1.3	200	200	ppb	N	Runoff from herbicide used on right of way.
Volatile Organic Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Individual Samples**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Toluene	2018	0.0007	0 - 0.0007	1	0	ppm	N	Discharge from petroleum factories.

Turbidity

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

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

Total Organic Carbon

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.

Total Trihalomethanes (TTHM)

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**	**Violation Explanation**
MCL, LRAA	04/01/2018	06/30/2018	* Water samples showed that the amount of this contaminate in our drinking water was above its standard (called a maximum contaminate level and abbreviated MCL) for the period indicated.
MCL, LRAA	07/01/2018	09/30/2018	* Water samples showed that the amount of this contaminate in our drinking water was above its standard (called a maximum contaminate level and abbreviated MCL) for the period indicated.
MCL, LRAA	10/01/2018	12/31/2018	* Water samples showed that the amount of this contaminate in our drinking water was above its standard (called a maximum contaminate level and abbreviated MCL) for the period indicated.

Corrective Action Taken:** ***Public Notices mailed to consumers outlining notices of violation, and what steps had been taken to address this.

In the water loss audit submitted to the Texas Water Development Board for the time period of Jan-Dec 2018, our system lost an estimated 238,639,870 gallons of water. If you have any questions about the water loss audit please call the **Public Works Administrative Assistant at (830) 257-8000**.

Water Loss is the amount that is lost through main breaks, repairs, leaks, failed water meters, theft of services, incorrect readings, and firefighting.

PUBLIC PARTICIPATION OPPORTUNITY: The City of Kerrville will mail you a printed copy of this Consumer Confidence Report if requested. Please contact the **Public Works Administrative Assistant at (830) 257-8000**, and printed copies are also available at City Hall located at 701 Main St., Kerrville, Texas.

www.kerrvilletx.gov

An opportunity for public participation is scheduled for **October 28, 2019 at 5:00 PM in the Meeting Room of the Butt-Holdsworth Library** located at 505 Water St., Kerrville, Texas