

Annual Drinking Water Quality Report

TX1330001

CITY OF KERRVILLE

Annual Water Quality Report for the period of January 1 to December 31, 2015

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.

For more information regarding this report contact:

Name City Hall Receptionist

Phone (830) 257-8000

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

CITY OF KERRVILLE is SURFACE 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 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>.

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://www.tceq.texas.gov/gis/swaview>

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: <http://dww2.tceq.texas.gov/DWW/>

Source Water Name		Type of Water	Report Status	Location
1-4 / RAW WATER INTAKE	NIMITZ LAKE	SW	<u>ACTIVE</u>	<u>GUADALUPE RIVER</u>
10 - LOIS ST	LOIS ST	GW	<u>ACTIVE</u>	<u>LOWER TRINITY AQUIFER</u>
11 - MEADOWVIEW LN	MEADOWVIEW	GW	<u>ACTIVE</u>	<u>LOWER TRINITY AQUIFER</u>
12 - HARPER RD	HARPER RD	GW	<u>ACTIVE</u>	<u>LOWER TRINITY AQUIFER</u>
13 - HAYS PARK	LOUISE HAYS PARK	GW	<u>ACTIVE</u>	<u>LOWER TRINITY AQUIFER</u>
14 - TRAVIS ST	TRAVIS ST	GW	<u>EMERGENCY</u>	<u>LOWER TRINITY AQUIFER</u>
15 - ALPINE DR	ALPINE	GW	<u>ACTIVE</u>	<u>LOWER TRINITY AQUIFER</u>
9 - H ST	H ST	GW	<u>ACTIVE</u>	<u>LOWER TRINITY AQUIFER</u>
ASR R-1	ASR R-1@SWTP	GW	<u>ACTIVE</u>	<u>LOWER TRINITY AQUIFER</u>
ASR R-2	CITY SERVICE CENTER	GW	<u>ACTIVE</u>	<u>LOWER TRINITY AQUIFER</u>
18 - METHODIST ENCAMPMENT	METHODIST ENCAMPMENT	GW	<u>ACTIVE</u>	<u>LOWER TRINITY AQUIFER</u>

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

YEAR 2015 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 Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation Y / N	Likely Source of Contamination
Copper	08/09/2013	1.3	1.3	0.224	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	08/09/2013	0	15	2.55	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection

Disinfectant Type	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Violation Y/N	Likely Source of Contamination
Chlorine	2015	1.7	0.3	3.4	4.0	4.0	ppm	N	Water additive used to control microbes.

Water Quality Test Results

Definitions:	The following tables contain scientific terms and measures, some of which may require explanation.
Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
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)
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)

Coliform Bacteria

Maximum Contaminate Level Goal	Total Coliform Maximum Contaminate Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminate Level	Total No. of Positive E. Coli Or Fecal Coliform Samples	Violation Y / N	Likely Source of Contamination
0	1 positive monthly sample	1		0	N	Naturally present in the environment

Regulated Contaminants

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)*	2015	31	12 – 35.3	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2015	79	25.6 - 119	No goal for the total	80	ppb	Y	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation Y / N	Likely Source of Contamination
Barium	2015	0.0785	0.0785 – 0.0785	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Cyanide	2015	1.08	0 – 1.08	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	2015	0.3	0.3 – 0.3	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]	2015	0.3	0 - 0.3	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	2015	7.5	7.5 – 7.5	0	50	pCi/L *	N	Decay of natural and man-made deposits.
<i>*EPA considers 50 pCi/L to be the level of concern for beta particles.</i>								
Combined Radium 226/228	2015	4.1	4.1 – 4.1	0	5	pCi/L	N	Erosion of natural deposits.
Uranium	2015	3.2	3.2 – 3.2	0	30	ug/l	N	Erosion of natural deposits.
Gross Alpha, Excluding Radon & Uranium	2015	12.9	12.9 – 12.9	0	15	pCi/L	N	Erosion of natural deposits.

Turbidity

	Limit (Treatment Technique)	Level Detected	Violation Y / N	Likely Source of Contamination
Highest single measurement	1 NTU	0.6 NTU	N	Soil runoff.
Lowest monthly % meeting limit	0.3 NTU	99%	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

Violations Table

Public Notification Rule			
<i>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).</i>			
Violation Type	Violation Begin	Violation End	Violation Explanation
PUBLIC NOTICE RULE LINKED TO VIOLATION	03/11/2012	2015	*We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.

***Corrective Action Taken: Public Notices mailed to consumers outlining notices of violation and operational procedures changed to address this.**

Total Trihalomethanes (TTHM)			
<i>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.</i>			
Violation Type	Violation Begin	Violation End	Violation Explanation
MCL, LRAA	01/01/2015	03/3/2015	* 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	04/01/2015	06/30/2015	* 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 2015, our system lost an estimated 335,727,589 gallons of water. If you have any questions about the water loss audit please call City Hall Receptionist 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 City Hall Receptionist 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 17, 2016 at 5:00 PM in the Meeting Room of the Butt-Holdsworth Library** located at 505 Water St., Kerrville, Texas