

Annual Drinking Water Quality Report

TX0910007

CITY OF TIOGA

Annual Water Quality Report for the period of January 1 to December 31, 2013

For more information regarding this report contact:

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.

Name Jim Hale, Public Works Director

The next meeting of the Tioga City Council is July 8, 2014 at 7:00 p.m. at City Hall, 600 Main Street, Tioga, Texas. All meetings are posted at www.tiogatx.gov.

Phone 940-437-2351

The source of drinking water in the CITY OF TIOGA is Ground Water from three wells in the Antlers and Trinity aquifers located in Tioga, Grayson County, Texas.

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono 940-437-2351.

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

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 detection of these contaminants may be found in the Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, contact Jim Hale at 940-437-2351.

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?wtsrc=>

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	Location
2 - WEST PS	GW	600 Main Street, Tioga, Texas
3 - EAST PS	GW	600 Main Street, Tioga, Texas
4 - MITCHELL ST	GW	108 Mitchell Street, Tioga, Texas

In the water loss audit submitted to the Texas Water Development Board for the time period of January 1, 2013 through December 31, 2013 our system lost an estimated 1,868,766 gallons of water. If you have any questions about the water loss audit please call 940-437-2351.

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)

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)*	2013	1.9	1.9 - 1.9	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2013	12.7	12.7 - 12.7	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Chemical Used	Average Level of Quarterly Data	Lowest Result of Single Sample	Highest Result of Single Sample	MRDL	MRDLG	Units	Violation	Source of Chemical
Chlorine Gas (CL2)	1.59	0.39	2.17	4.0		>0.2<4.0	N	Disinfectant
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	03/16/2010	0.582	0.582 - 0.582	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	03/16/2010	0.0108	0.0108 - 0.0108	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	03/16/2010	2.07	2.07 - 2.07	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	07/18/2012	0.29	0.29 - 0.29	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]	2013	0.071	0.071 - 0.071	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	03/16/2010	1.38	1.38 - 1.38	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Thallium	03/16/2010	0.058	0.058 - 0.058	0.5	2	ppb	N	Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	07/18/2012	1	1 - 1	0	5	pCi/L	N	Erosion of natural deposits.

Violations Table

Lead and Copper Rule

The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.

Violation Type	Violation Begin	Violation End	Violation Explanation
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2010	2013	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2013	2013	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

The City of Tioga did send in samples to test our drinking water for the contaminant. However, our samples did not reach the proper destination by the due date and were not accepted for this reason. We are currently working toward the goal of meeting the standards of compliance.

"Every Drop Counts"
Water Conservation Tips for Consumers

While conservation alone will not enable Texas to meet all of its future water needs, if the state is going to be able to meet the water demands of today's 23 million residents and prepare for continued growth, then everyone must make a greater effort to conserve.

There are many compelling reasons why individuals decide to conserve water. Some may do so in order to reduce a monthly water bill. Sometimes drought and a utility company's implementation of a water conservation plan is the reason for a homeowner to change old habits. Whatever the reason, using water wisely makes sense. With discipline, planning and the investment in improved water-efficiency equipment, average consumers can be above average water savers.

INDOORS:

- Keep a pitcher of drinking water in the refrigerator, instead of cooling the water by running the faucet.
- Recycle water that would otherwise go to waste. This might include putting a bucket in the shower to catch extra water, which can be used to water a plant; or brushing your teeth while waiting for the water to warm.
- Make sure your house is leak-free. If your water meter is moving even though all faucets are off, your house most likely has a leak somewhere.
- Repair or replace the handle on your toilet if it is prone to sticking. A plumber may not be necessary, since repair kits are available at most hardware stores and are fairly simple to install.
- Take shorter showers or consider installing low flow shower heads. Shower systems that allow the water to be turned off without adjusting the temperature settings are now available. This enables you to turn off the water while lathering and maintain the same temperature.
- Repair all leaky faucets, and, when possible, update to low-flow faucets.
- Check toilet tank for leaks. Add a few drops of food coloring to the tank and wait for thirty minutes. If the tank is leaking you will see food coloring in the toilet bowl.
- Install toilet displacement devices or dams, this will reduce the amount of water needed for every flush.
- Use the dishwasher to wash your dishes. The dishwasher generally uses less water than hand washing does.
- Fill the dishwasher and washing machine completely before using them.

OUTDOORS:

- Water in the early morning or in the late evening. Avoid watering during the heat of the day since this is when evaporation is at its peak.
- Do not water when it is windy or when there is a chance of rain.
- Only water your yard. Concrete sidewalks and gutters don't grow. This may require adjusting your sprinklers or watering some areas by hand.
- Do not over water. This means watching for puddles or runoff.
- Water your lawn no more than every three to five days. Watering it more often is not beneficial, in fact it may actually harm your lawn.
- During the summer, accept a "less than perfect" lawn. Brown grass only means that it has become dormant and extra watering will not help it to "green-up."
- Use mulch around plants and flowers. The mulch reduces evaporation and helps keep water near the roots of the plant where it is most beneficial.
- Use soaker hoses or drip irrigation wherever possible.
- Practice Xeriscaping. This method of landscaping uses plants which are native to your area or are naturally drought resistant.
- Replace grasses with groundcover whenever possible. Groundcover requires much less water than lawn grasses do.