



**City of Sherman
Annual Drinking Water Quality Report 2011
(Consumer Confidence Report)**

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono 903-892-7258.

Do I need to take special precautions?

Some people 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; those 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 provider. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline at 800-426-4791.

Where does my water come from?

The City of Sherman has two different sources of water, well (ground) water and lake (surface) water. Ground water comes from Sherman's 25 wells in the Woodbine and Trinity aquifers. No treatment is necessary for the ground water except for the addition of chlorine to disinfect the water. Surface water comes from Lake Texoma and is treated at the Sherman Water Treatment Plant (WTP). The WTP provides multi-barrier protection against microbial contaminants through conventional treatment. The conventional treatment process consists of preoxidation, rapid mixing, flocculation, sedimentation and filtration. In the preoxidation basin, suspended particles are oxidized to facilitate removal. Coagulants are then added to encourage suspended particles in the water to bond together so they become heavy enough to settle to the bottom of the sedimentation basin. These particles are allowed to settle for approximately four hours. After the sedimentation process, the water is filtered using granular activated carbon and sand to remove remaining suspended particles as well as taste and odor. After conventional treatment, the filtered water is demineralized to remove dissolved salts. Also, the demineralization process reduces the hardness of the water. Once the lake water has been treated, it is disinfected and held for customers.

The Source Water Assessment and its Availability

Texas Commission on Environmental Quality (TCEQ) has completed an assessment of our source water; and the results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for our water system are based on this susceptibility and previous sample data. Any detection 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 us at 903-892-7258.

Why are there contaminants in my drinking water?

ALL drinking water may contain contaminants. When drinking water meets federal standards, there may not be any health-based benefits to purchasing bottled water or point of use devices. 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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline 800-426-4791. The tables in the report show all of the regulated contaminants that were detected for the 2005 and 2009 calendar years. The TCEQ continuously monitors our drinking water to ensure that safe water is delivered to your home.

Conservation Tips

Did you know that the average U.S. household uses approximately 350 gallons of water per day? Luckily, there are many low-cost or no-cost ways to conserve water. Water your lawn at the least sunny times of the day. Fix toilet and faucet leaks. Take short showers; a five minute shower uses four to five gallons of water compared to up to 50 gallons for a bath. Turn the faucet off while brushing your teeth and shaving; three to five gallons go down the drain per minute. Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!

Additional Information for Lead

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 SHERMAN is responsible for providing high quality drinking water; but the City 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 two 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>.

Secondary Constituents

Many constituents (such as calcium, sodium, or iron), which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document; but they may greatly affect the appearance and taste of your water.

Water Quality Data Table

The table on the back side of this page lists all of the drinking water contaminants that have been found in your drinking water. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires monitoring for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Public participation opportunities. You are invited to attend City Council Meetings. Please call the City Clerk's Office at 903-892-7206 for more information.

Questions regarding your water bill? Please call 903-892-7237, 8:00 a.m. to 5:00 p.m., weekdays.

Questions about this report? Please call 903-892-7258, 8:00 a.m. to 5:00 p.m., weekdays.

Maximum Contaminant Level Goal	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 Contaminant Level	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 residual disinfectant level goal	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.
Maximum residual disinfectant level	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.
	MFL	million fibers per liter (a measure of asbestos)
	mrem/year:	millirems per year (a measure of radiation absorbed by the body)
	NTU	nephelometric turbidity units (a measure of turbidity)
	pCi/L	picocuries per liter (a measure of radioactivity)
	ppb	micrograms per liter (µg/L) or parts per billion - or one ounce in 7,350,000 gallons of water
	ppm	parts per million, or milligrams per liter (mg/L)
	ppt	parts per trillion, or nanograms per liter (ng/L)
	ppq	parts per quadrillion, or pictograms per liter (pg/L)
	BDL	Below Detection Limit
	TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
	AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

If you are finding this report difficult to read, please visit the City of Sherman's website at <http://ci.sherman.tx.us/>

For more information:

Please contact DeWayne Sutherland, Water System Superintendent, City of Sherman, P. O. Box 1106, Sherman, TX 75091-1106, Phone #903-892-7258.

2011 Regulated Contaminants

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Antimony	2011	0.455	0 - 0.455	6	6	ppb	N	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.
Arsenic	2011	0.994	0.232 - 0.994	0	10	ppb	N	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Barium	2011	0.04	0.00426 - 0.04	2	2	ppm	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Beryllium	2011	BDL	0 - 0	4	4	ppb	N	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense.
Cadmium	2011	BDL	0 - 0	5	5	ppb	N	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries.
Chromium	2011	13.2	0.469 - 13.2	100	100	ppb	N	Discharge from steel and pulp mills; erosion of natural deposits.
Fluoride	2011	0.5	0.53 - 1.23	4	4	ppm	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum.
Mercury	2011	BDL	0 - 0	2	2	ppb	N	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland.
**Nitrate [measured as Nitrogen]	2011	0.12	0 - 0.12	10	10	ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Nitrite [measured as Nitrogen]	08/14/2006	BDL	0 - 0	1	1	ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Selenium	2011	2.18	0 - 2.18	50	50	ppb	N	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Thallium	2011	0.342	0.01 - 0.342	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
Beta/Photon emitters	2011	BDL	0 - 0	0	4	mrem/yr	N	Decay of natural and man-made deposits.
Combined Radium 226/228	2011	1	01-Jan	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2011	BDL	0 - 0	0	15	pCi/L	N	Erosion of natural deposits.
Synthetic Organic Contaminants Including Pesticides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
2,4,5-TP (Silvex)	2011	BDL	0 - 0	50	50	ppb	N	Residue of banned herbicide.
2,4-D	2011	BDL	0 - 0	70	70	ppb	N	Runoff from herbicide used on row crops.
Alachlor	2011	BDL	0 - 0	0	2	ppb	N	Runoff from herbicide used on row crops.
Atrazine	2011	BDL	0 - 0	3	3	ppb	N	Runoff from herbicide used on row crops.
Benzo(a)pyrene	2011	BDL	0 - 0	0	200	ppt	N	Leaching from linings of water storage tanks and distribution lines.
Carbofuran	2011	BDL	0 - 0	40	40	ppb	N	Leaching of soil fumigant used on rice and alfalfa.
Chlordane	2011	BDL	0 - 0	0	2	ppb	N	Residue of banned termiticide.
Dalapon	2011	BDL	0 - 0	200	200	ppb	N	Runoff from herbicide used on rights of way.
Di (2-ethylhexyl) adipate	2011	BDL	0 - 0	400	400	ppb	N	Discharge from chemical factories.
Di (2-ethylhexyl) phthalate	2011	BDL	0 - 0	0	6	ppb	N	Discharge from rubber and chemical factories.
Dibromochloropropane (DBCP)	2011	BDL	0 - 0	0	0	ppt	N	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.
Dinoseb	2011	BDL	0 - 0	7	7	ppb	N	Runoff from herbicide used on soybeans and vegetables.
Endrin	2011	BDL	0 - 0	2	2	ppb	N	Residue of banned insecticide.
Ethylene dibromide	2011	BDL	0 - 0	0	50	ppt	N	Discharge from petroleum refineries.
Heptachlor	2011	BDL	0 - 0	0	400	ppt	N	Residue of banned termiticide.
Heptachlor epoxide	2011	BDL	0 - 0	0	200	ppt	N	Breakdown of heptachlor.
Hexachlorobenzene	2011	BDL	0 - 0	0	1	ppb	N	Discharge from metal refineries and agricultural chemical factories.
Hexachlorocyclopentadiene	2011	BDL	0 - 0	50	50	ppb	N	Discharge from chemical factories.
Lindane	2011	BDL	0 - 0	200	200	ppt	N	Runoff/leaching from insecticide used on cattle, lumber, gardens.
Methoxychlor	2011	BDL	0 - 0	40	40	ppb	N	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock.
Oxamyl [Vydate]	2011	BDL	0 - 0	200	200	ppb	N	Runoff/leaching from insecticide used on apples, potatoes and tomatoes.
Pentachlorophenol	2011	BDL	0 - 0	0	1	ppb	N	Discharge from wood preserving factories.
Picloram	2011	BDL	0 - 0	500	500	ppb	N	Herbicide runoff.
Simazine	2011	BDL	0 - 0	4	4	ppb	N	Herbicide runoff.
Toxaphene	2011	BDL	0 - 0	0	3	ppb	N	Runoff/leaching from insecticide used on cotton and cattle.
Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
1,1,1-Trichloroethane	2011	BDL	0 - 0	200	200	ppb	N	Discharge from metal degreasing sites and other factories.
1,1,2-Trichloroethane	2011	BDL	0 - 0	3	5	ppb	N	Discharge from industrial chemical factories.
1,1-Dichloroethylene	2011	BDL	0 - 0	7	7	ppb	N	Discharge from industrial chemical factories.
1,2,4-Trichlorobenzene	2011	BDL	0 - 0	70	70	ppb	N	Discharge from textile-finishing factories.
1,2-Dichloroethane	2011	BDL	0 - 0	0	5	ppb	N	Discharge from industrial chemical factories.
1,2-Dichloropropane	2011	BDL	0 - 0	0	5	ppb	N	Discharge from industrial chemical factories.
Benzene	2011	BDL	0 - 0	0	5	ppb	N	Discharge from factories; leaching from gas storage tanks and landfills.
Carbon Tetrachloride	2011	BDL	0 - 0	0	5	ppb	N	Discharge from chemical plants and other industrial activities.
Chlorobenzene	2011	BDL	0 - 0	100	100	ppb	N	Discharge from chemical and agricultural chemical factories.
Dichloromethane	2011	BDL	0 - 0	0	5	ppb	N	Discharge from pharmaceutical and chemical factories.
Ethylbenzene	2011	BDL	0 - 0	700	700	ppb	N	Discharge from petroleum refineries.
Styrene	2011	BDL	0 - 0	100	100	ppb	N	Discharge from rubber and plastic factories; leaching from landfills.
Tetrachloroethylene	2011	BDL	0 - 0	0	5	ppb	N	Discharge from factories and dry cleaners.
Toluene	2011	BDL	0 - 0	1	1	ppm	N	Discharge from petroleum factories.
Trichloroethylene	2011	BDL	0 - 0	0	5	ppb	N	Discharge from metal degreasing sites and other factories.
Vinyl Chloride	2011	BDL	0 - 0	0	2	ppb	N	Leaching from PVC piping; discharge from plastics factories.
Xylenes	2011	BDL	0 - 0	10	10	ppm	N	Discharge from petroleum factories; discharge from chemical factories.
cis-1,2-Dichloroethylene	2011	BDL	0 - 0	70	70	ppb	N	Discharge from industrial chemical factories.
o-Dichlorobenzene	2011	BDL	0 - 0	600	600	ppb	N	Discharge from industrial chemical factories.
p-Dichlorobenzene	2011	BDL	0 - 0	75	75	ppb	N	Discharge from industrial chemical factories.
trans-1,2-Dichloroethylene	2011	BDL	0 - 0	100	100	ppb	N	Discharge from industrial chemical factories.
**Nitrate Advisory - 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.								
Coliform Bacteria								
Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level		Highest No. of Positive 2011	Total No. of Positive E. Coli or Fecal Coliform Samples		Violation	Likely Source of Contamination	
0	5% of monthly samples		0	0		N	Naturally present in the environment.	
Lead and Copper	Collection Date	MCGL	Action Level (AL)	# Sites > AL	Units	Violation	Likely Source of Contamination	
Copper	09/30/2010	1.3	1.3	0	ppm	N	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.	
Lead	09/30/2010	0	15	0	ppb	N	Corrosion of household plumbing systems; erosion of natural deposits.	
Action Level(AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.								
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)*	2011	8	0 - 15.3	No goal	60	ppb	N	By-product of drinking water chlorination.
Trihalomethanes (THM)*	2011	41	6.4 - 52.4	No goal	80	ppb	N	By-product of drinking water chlorination.
*Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.								
Turbidity		Limit (Treatment Technique)		Level Detected		Violation		Likely Source of Contamination
Highest single measurement		1NTU		0.24 NTU		N		Soil runoff.
Lowest monthly % meeting limit		0.3 NTU		100%		N		Soil runoff.