

# 2013 *Drinking Water Quality Report*

City of Mont Belvieu

281-576-6147

## **Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements**

This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the following pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

**Special Notice for the Elderly, Infants, Cancer Patients, people with HIV/AIDS or other immune problems:** Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care provider. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

### **Where do we get our drinking water?**

Our drinking water is obtained from Ground water sources. It comes from the following: Chicot and Evangeline aquifers. A Source Water Susceptibility Assessment for your drinking water sources 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 will allow us to focus on our source water protection strategies. For more information about your sources of water, please refer to the Source Water Assessment Viewer 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.state.tx.us/DWW>. Our water sources are:

<b>Groundwater Well #</b>	<b>Location</b>	<b>Status</b>
7	12635 River Birch	Active
8	12635 River Birch	Active
9	11914 Cherry Point	Active
10	Eagle Pt. Golf Course	Not currently used for source water
11	Perry Ave. east of Eagle Drive	Active

## WATER SOURCES

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.

### Definitions:

**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 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 Residual Disinfectant Level (MRDL)** - The highest level of 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 (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.

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

**pCi/L** - picocuries per liter (a measure of radioactivity)

**Ppm** - parts per million, or milligrams per liter (mg/l) - or one ounce in 7,350 gallons of water.

**ppb** - parts per billion, or micrograms per liter (ug/l) - or one ounce in 7,350,000 gallons of water.

**ppq** - parts per quadrillion, or picograms per liter.

**ppt** - parts per trillion, or nanograms per liter.

**na** - not applicable.



## About The Following Pages

The pages that follow list all of the federally regulated or monitored contaminants which have been found in your drinking water. The U.S. EPA requires water systems to test for up to 97 contaminants.

## 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.

## PUBLIC PARTICIPATION OPPORTUNITIES

Date: **July 14, 2014**  
Time: **6:00 p.m.**  
Location: **City Hall, 2nd floor**  
Phone No.: **281-576-2213**

## ALL drinking water may contain contaminants

When drinking water meets federal standards there may not be any health 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 Safe Drinking Water Hotline (1-800-426-4791). 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 septic systems.
- 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.

## 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	10	8.9 - 10.7	No goal for the total	60	ppb	N	By-product of drinking water chlorination.
Total Trihalomethanes (TThm)*	2013	43	31.4- 54.2	No goal for the total	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.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Antimony	3/4/2013	Levels lower than detect level	0—0	6	6	ppb	N	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.
Arsenic	2013	4.7	4.7 -4.7	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	3/4/2013	0.117	0.117—0.117	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Beryllium	3/4/2013	Levels lower than detect level	0—0	4	4	ppb	N	Discharge from metal refineries and coal burning factories; Discharge from electrical; aerospace & defense.
Cadmium	3/4/2013	Levels lower than detect level	0—0	5	5	ppb	N	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries.
Chromium	3/4/2013	Levels lower than detect level	0—0	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	2013	2.5	2.48 - 2.56	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum.
Mercury	3/4/2013	Levels lower than detect level	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)	3/4/2013	Levels lower than detect level	0—0	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

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 baby blue 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	3/4/2013	Levels lower than detect level	0—0	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Thallium	3/4/2013	Levels lower than detect level	0—0	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	1/13/2009	Levels lower than detect level	0—0	0	4	mrem/yr	N	Decay of natural and man-made deposits.
Gross alpha excluding radon & uranium	1/13/2009	Levels lower than detect level	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)	3/4/2013	Levels lower than detect level	0—0	50	50	ppb	N	Residue of banned herbicide.
2, 4-D	3/4/2011	Levels lower than detect level	0—0	70	70	ppb	N	Runoff from herbicide used on row crops.
Alachor	3/4/2013	Levels lower than detect level	0—0	0	2	ppb	N	Runoff from herbicide used on row crops.
Atrazine	3/4/2013	Levels lower than detect level	0—0	3	3	ppb	N	Runoff from herbicide used on row crops.
BHC - Gamma	3/4/2013	Levels lower than detect level	0—0	0	200	ppt	N	Leaching from linings of water storage tanks and distribution lines.
Chlordane	3/4/2013	Levels lower than detect level	0—0	40	40	ppb	N	Leaching of soil fumigant used on rice and alfalfa.
Dalapon	3/4/2013	Levels lower than detect level	0—0	200	200	ppb	N	Runoff from herbicide used on rights of way.
Di (2-ethylhexyl) adipate	1/13/2009	Levels lower than detect level	0—0	400	400	ppb	N	Discharge from chemical factories.
Dibromochloro propane (DBCP)	3/9/2011	Levels lower than detect level	0—0	0	0	ppt	N	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples and orchards.
Dinoseb	3/4/2013	Levels lower than detect level	0—0	7	7	ppb	N	Runoff from herbicide used on soybeans and vegetables.
Endrin	3/4/2013	Levels lower than detect level	0—0	2	2	ppb	N	Residue of banned insecticide.
Ethylene dibromide	3/9/2011	Levels lower than detect level	0—0	0	50	ppt	N	Discharge from petroleum refineries.
Heptachlor	3/4/2013	Levels lower than detect level	0—0	0	400	ppt	N	Residue of banned termiticide.
Heptachlor epoxide	3/4/2013	Levels lower than detect level	0—0	0	200	ppt	N	Breakdown of heptachlor.
Hexachloro benzene	1/13/2009	Levels lower than detect level	0—0	0	1	ppb	N	Discharge from metal refineries and agricultural chemical factories.
Hexachloro cyclopentadiene	1/13/2009	Levels lower than detect level	0—0	50	50	ppb	N	Discharge from chemical factories.
Lindane	1/13/2009	Levels lower than detect level	0—0	200	200	ppt	N	Runoff/leaching from insecticide used on cattle, lumber, gardens.
Methoxychlor	3/4/2013	Levels lower than detect level	0—0	40	40	ppb	N	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock.
Oxamyl [Vydate]	3/9/2011	Levels lower than detect level	0—0	200	200	ppb	N	Runoff/leaching from insecticide used on apples, potatoes and tomatoes.
Penta-chlorophenol	3/4/2013	Levels lower than detect level	0—0	0	1	ppb	N	Discharge from wood preserving factories.

Picloram	3/4/2013	Levels lower than detect level	0—0	500	500	ppb	N	Herbicide runoff.
Simazine	3/4/2013	Levels lower than detect level	0—0	4	4	ppb	N	Herbicide runoff.
Toxaphene	3/4/2013	Levels lower than detect level	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	3/4/2013	Levels lower than detect level	0—0	200	200	ppb	N	Discharge from metal degreasing sites and other factories.
1, 1, 2 - Trichloroethane	3/4/2013	Levels lower than detect level	0—0	3	5	ppb	N	Discharge from industrial chemical factories.
1, 1 - Dichloroethylene	3/4/2013	Levels lower than detect level	0—0	7	7	ppb	N	Discharge from industrial chemical factories.
1, 2, 4 - Trichlorobenzene	3/4/2013	Levels lower than detect level	0—0	70	70	ppb	N	Discharge from textile-finishing factories.
1, 2 - Dichloroethane	3/4/2013	Levels lower than detect level	0—0	0	5	ppb	N	Discharge from industrial chemical factories.
1, 2 - Dichloropropane	3/4/2013	Levels lower than detect level	0—0	0	5	ppb	N	Discharge from industrial chemical factories.
Benzene	3/4/2013	Levels lower than detect level	0—0	0	5	ppb	N	Discharge from factories; leaching from gas storage tanks and landfills.
Carbon Tetrachloride	3/4/2013	Levels lower than detect level	0—0	0	5	ppb	N	Discharge from chemical plants and other industrial activities.
Chlorobenzene	3/4/2013	Levels lower than detect level	0—0	100	100	ppb	N	Discharge from chemical and agricultural chemical factories.
Dichloromethane	3/4/2013	Levels lower than detect level	0—0	0	5	ppb	N	Discharge from pharmaceutical and chemical factories.
Ethylbenzene	3/4/2013	Levels lower than detect level	0—0	700	700	ppb	N	Discharge from petroleum refineries.
Styrene	3/4/2013	Levels lower than detect level	0—0	100	100	ppb	N	Discharge from rubber and plastic factories; leaching from landfills.
Tetrachloroethylene	3/4/2013	Levels lower than detect level	0—0	0	5	ppb	N	Discharge from factories and dry cleaners.
Toluene	3/4/2013	Levels lower than detect level	0—0	1	1	ppm	N	Discharge from petroleum factories.
Trichloroethylene	3/4/2013	Levels lower than detect level	0—0	0	5	ppb	N	Discharge from metal degreasing sites and other factories.
Vinyl Chloride	3/4/2013	Levels lower than detect level	0—0	0	2	ppb	N	Leaching from PVC piping; discharge from plastics factories.

Xylenes	3/4/2013	Levels lower than detect level	0—0	10	10	ppm	N	Discharge from petroleum factories; discharge from chemical factories.
cis -1, 2 - Dichloroethylene	3/4/2013	Levels lower than detect level	0—0	70	70	ppb	N	Discharge from industrial chemical factories.
<sup>o</sup> - Dichlorobenzene	3/4/2013	Levels lower than detect level	0—0	600	600	ppb	N	Discharge from industrial chemical factories.
<sup>p</sup> - Dichlorobenzene	3/4/2013	Levels lower than detect level	0—0	75	75	ppb	N	Discharge from industrial chemical factories.
trans - 1, 2- Dichloroethylene	3/4/2013	Levels lower than detect level	0—0	100	100	ppb	N	Discharge from industrial chemical factories.

#### Maximum Residual Disinfectant Level

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Chemical
2010	Chlorine Residual, Free	0.67	0.2	2.2	4	4	ppm	Disinfectant used to control microbes.

#### Lead and Copper

Year	Contaminant	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Likely Source of Contamination
2009	Lead	5.2	0	15	ppb	Corrosion of household plumbing systems; erosion of natural deposits.
2013	Copper	0.0102	0	1.3	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

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. This water supply is responsible for providing high quality drinking water, but 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>.

#### Violations Table

#### Lead and Copper Rule

Violation Type	Violation Begin	Violation End	Violation Explanation
0Follow Up or routine Tap M/R (LCR)	10/1/2012	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.
0Follow Up or routine Tap M/R (LCR)	10/1/2013	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 TCEQ completed an assessment of your source water and results indicate that our sources have a low susceptibility to 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 Confident Report. For more information on source water assessments and protection efforts at our system, contact Larry Jordan at 281-576-6147.