

# 2012 Annual Drinking Water Quality Report

Consumer Confidence Report (CCR) for the period of January 1 to December 31, 2012

CITY OF MINERAL WELLS - PWS ID No.1820001

**YOUR DRINKING WATER IS REGULATED AND MEETS OR EXCEEDS ALL FEDERAL (EPA) DRINKING WATER REQUIREMENTS:** 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. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented on the enclosed attachment. We hope this information helps you become more knowledgeable about what's in your drinking water. For more information regarding this report contact the City of Mineral Wells Public Works Department at (940) 328-7777.

Your drinking water is obtained from SURFACE water sources. It comes from Lake Palo Pinto, Palo Pinto Creek, and Hilltop Presedimentation Reservoir. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts on 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.

**EN ESPANOL:** Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo o hable con alguien que lo entienda bien.

**SPECIAL NOTE:** 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 providers. 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.

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 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>.

**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 pickup substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

**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.

**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.

**Microbial Contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**Pesticides and Herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

**Radioactive Contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

**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.

**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 source of water, please refer to the Source Water Assessment viewer available at <http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtsrc=>. Further details about sources and source water assessments are available at <http://dww.tceq.texas.gov/DWWW>. For more information on source water assessments and protection efforts at our system, please contact us.

## DEFINITIONS

**Maximum Contaminant Level (MCL)** - The highest permissible level of a contaminant 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 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 (MRDLG)** - The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectant to control microbial contaminants.

**Treatment Technique (TT)** - A required process intended to reduce the level of a contaminant in drinking water.

**Action Level (AL)** - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

## ABBREVIATIONS

MFL	-	million fibers per liter (a measure of asbestos)
mrem/yr	-	millirems per year (a measure of radiation absorbed by the body)
n/a	-	not applicable
NTU	-	nephelometric turbidity units
pCi/L	-	picocuries per liter (a measure of radioactivity)
ppb	-	micrograms per liter (ug/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
ppq	-	parts per quadrillion, or picograms per liter



## 2012 REGULATED CONTAMINANTS DETECTED

Lead and Cooper	Date Sampled	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	No. Sites Over All	Units	Violation	Likely Source of Contamination
Cooper	07/27/2010	1.3	1.3	0.0315	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	07/27/2010	0	15	1.6	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfectant Residual	Collection Date	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Units of Measure	Likely Source of Contamination
Chloramine	2012	2.17	1.9	4.0	4.0	<4.0	ppm	Disinfectant used to control microbes.

Systems must complete and submit disinfection data on the Surface Water Monthly Operations Report (SWMOR). On the CCR report, the system must provide disinfectant type, minimum, maximum and average levels.

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)	06/13/2012	28.6	5.5-28.6	N/A	60	ppb	N	By-product of drinking water chlorination.
Total Trihalomethanes(TTHm)	06/13/2012	45.2	23.7-45.2	N/A	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.

Inorganics Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	03/09/2011	1.68	1.68 – 1.68	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	03/09/2011	0.1	0.1 – 0.1	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	03/09/2011	0.688	0.688 – 0.688	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	12/12/2012	0.61	0.61-0.61	4	4	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum.
Nitrate (measured as Nitrogen)	12/12/2012	0.06	0.06-0.06	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	03/09/2011	3.73	3.73 – 3.73	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Thallium	03/09/2011	0.09	0.09 – 0.09	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	03/09/2011	5.8	5.8 – 5.8	0	50	pCi/L	N	Decay of natural and man-made deposits.
Combined Radium 226/228	03/09/2011	1	1 – 1	0	5	pCi/L	N	Erosion of natural deposits.

Turbidity	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	0.24 NTU	N	Soil runoff.
Lowest monthly % meeting limit	0.3 NTU	100%	N	Soil runoff.

## 2012 REGULATED CONTAMINANTS DETECTED (continued)

TOTAL ORGANIC CARBON	Collection Date	Average Level	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Source Water	2012	7.07	6.3-8.3	N/A	N/A	ppm	N	Naturally present in the environment
Drinking Water	2012	3.62	3.0-4.8	N/A	N/A	ppm	N	Naturally present in the environment
Removal Ratio	2012	1.40	1.3-1.5	N/A	N/A	% removal	N	N/A

\* Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed.

Total Organic Carbon (TOC) no health effects. The disinfectant can combine with TOC to form disinfection by-products. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Byproducts of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.

### TOTAL COLIFORM

REPORTED MONTHLY TESTS FOUND NO COLIFORM BACTERIA.

### FECAL COLIFORM

REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA.

## 2012 UNREGULATED CONTAMINANTS DETECTED

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chloroform	09/25/2012	8.65	8.65-8.65	N/A	N/A	ppb	N	By-product of drinking water disinfection.
Bromoform	09/25/2012	2.01	2.01-2.01	N/A	N/A	ppb	N	By-product of drinking water disinfection.
Bromodichloromethane	09/25/2012	12.27	12.27-12.27	N/A	N/A	ppb	N	By-product of drinking water disinfection.
Dibromochloromethane	09/25/2012	12.82	12.82-12.82	N/A	N/A	ppb	N	By-product of drinking water disinfection.

There is no maximum contaminant level for these chemicals at the entry point to distribution.

Secondary and Other Constituents Not Regulated	Collection Date	Highest Level Detected	Range of Levels Detected	Secondary Limit	Units	Violation	Likely Source of Contamination
Bicarbonate	12/12/2012	105	105-105	N/A	ppm	N	Corrosion of carbonate rocks such as limestone.
Chloride	12/12/2012	26.4	26.4-26.4	300	ppm	N	Abundant naturally occurring element; used in water purification; byproduct of oil field activity.
Hardness as Ca/Mg	03/09/2011	170	170 – 170	N/A	ppm	N	Naturally occurring calcium and magnesium
pH	03/09/2011	7.9	7.9 – 7.9	8.5	pH units	N	Measure of corrosivity of water.
Sodium	03/09/2011	31.4	31.4 – 31.4	N/A	ppm	N	Erosion of natural deposits; byproduct of oil field activity.
Sulfate	12/02/2012	34.5	34.5-34.5	300	ppm	N	Naturally occurring; common industrial byproduct; by-product of oil field activity.
Total Alkalinity as CaCO <sub>3</sub>	03/09/2011	105	105-105	N/A	ppm	N	Naturally occurring soluble mineral salts.
Total Dissolved Solids	12/12/2012	223	223-223	1000	ppm	N	Total dissolved mineral constituents in water.

No associated adverse health effects.