

# 2010 Annual Drinking Water Quality Report

(Consumer Confidence Report)

CITY OF MINERAL WELLS

Phone No. (940) 328-7777

PWS No.1820001

**SPECIAL NOTE:** 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; 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.

## PUBLIC PARTICIPATION OPPORTUNITIES

**Date:** NONE SCHEDULED

**Time:**

**Location:**

**Phone No.:** (940) 328-7777

To learn about future public meetings (concerning your drinking water), or to request to schedule one, please call us.

## OUR DRINKING WATER IS REGULATED AND 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 on the enclosed attachment. We hope this information helps you become more knowledgeable about what's in your drinking water.

**SOURCE 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. 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.

**EN ESPAÑOL:** Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. (940) 328-7865 para hablar con una persona bilingüe en español.

**WHERE DO WE GET OUR DRINKING WATER?** Our drinking water is obtained from SURFACE water sources. It comes from the following Lake/River/Reservoir/Aquifer: Lake Palo Pinto, Palo

Pinto Creek, and Hilltop Presedimentation Reservoir. 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 will allow us to focus our source water protection strategies. Some of this source water assessment information is available on Texas Drinking Water Watch at <http://www.tceq.state.tx.us/DWW/>. For more information on source water assessments and protection efforts at our system, please contact us.

**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 EPA's Safe Drinking Water Hotline (800) 426-4791.

**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.

## 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

- NTU - Nephelometric Turbidity Units
- MFL - million fibers per liter (a measure of asbestos)
- mrem/yr - millirem/yr. or one-thousandth of a rem per year (a measure of radioactivity)
- ppm - parts per million, or milligrams per liter (mg/L)
- ppb - parts per billion, or micrograms per liter (ug/L)
- ppt - parts per trillion, or nanograms per liter
- ppq - parts per quadrillion, or picograms per liter



**INORGANIC CONTAMINANTS**

Contaminant	Collection Date	Average Level	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Fluoride	2010	0.36	0.36 - .036	4	4	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2010	0.08	0.08 - 0.08	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage, Erosion of natural deposits.

**RADIOACTIVE CONTAMINANTS**

Contaminant	Collection Date	Average Level	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	03/02/05	7.5	7.5 - 7.5	0	4	mrem/yr	N	Decay of natural and man-made deposits.

**ORGANIC CONTAMINANTS**

TESTING WAIVED, NOT REQUIRED, OR NONE DETECTED

**MAXIMUM RESIDUAL DISINFECTANT LEVEL**

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.

Contaminant	Collection Date	Average Level	Range of Levels Detected	MRDL	MRDLG	Units	Violation	Likely Source of Contamination
Chloramine	2010	2.43	2.0 - 4.0	4.0	<4.0	ppm	N	Disinfectant used to control microbes.

**DISINFECTANT BY-PRODUCTS**

Contaminant	Collection Date	Average Level	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Haloacetic Acids (HAA5)	2010	28	11.1 - 33.8	N/A	60	ppb	N	By-product of drinking water chlorination.
Total Trihalomethanes(TThm)	2010	49	9.6 - 70.4	N/A	80	ppb	N	By-product of drinking water chlorination.

**UNREGULATED INITIAL DISTRIBUTION SYSTEM EVALUATION FOR DISINFECTION BYPRODUCTS**

This evaluation is sampling required by EPA to determine the range of total trihalomethane and haloacetic acid in the system for future regulations. The samples are not used for compliance, and may have been collected under non-standard conditions. EPA also requires the data to be reported here.

Contaminant	Collection Date	Average Level	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Haloacetic Acids (HAA5)	2008	19.7	2.7 - 34.9	N/A	N/A	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes(TThm)	2008	45.3	30.7 - 71.3	N/A	N/A	ppb	N	By-product of drinking water disinfection.

**UNREGULATED CONTAMINANTS**

Bromoform, chloroform, dichlorobromomethane, and dibromochloromethane are disinfection by-products. There is no maximum contaminant level for these chemicals at the entry point to distribution.

Contaminant	Collection Date	Average Level	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chloroform	2010	7.1	7.1 - 7.1	N/A	N/A	ppb	N	By-product of drinking water disinfection.
Bromoform	2010	9.48	9.48 - 9.48	N/A	N/A	ppb	N	By-product of drinking water disinfection.
Bromodichloromethane	2010	16.18	16.18 - 16.18	N/A	N/A	ppb	N	By-product of drinking water disinfection.
Dibromochloromethane	2010	23.64	23.64 - 23.64	N/A	N/A	ppb	N	By-product of drinking water disinfection.

**UNREGULATED CONTAMINANT MONITORING RULE 2 (UCMR2)**

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. Any unregulated contaminants detected are reported in the following table. For additional information and data, visit <http://www.epa.gov/safewater/ucmr/ucmr2/index.html>, or call the Safe Drinking Water Hotline at (800) 426-4791.

Contaminant	Collection Date	Average Level	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Dimethoate	2009	<0.71	<0.71 - <0.71	N/A	N/A	ppb	N	Insecticide used on cotton and other field crops, orchard crops, vegetable crops, in forestry, and for residential uses.
Terbufos Sulfone	2009	<0.41	<0.41 - <0.41	N/A	N/A	ppb	N	Degradate of the parent compound, terbufos; terbufos used for systemic control of soil-borne insects and nematodes in fields of corn, corn grain sorghum, and sugar beets.
Tetrabromodiphenyl ether (BDE-47)	2009	<0.30	<0.30 - <0.30	N/A	N/A	ppb	N	Flame retardant added to plastics (for products such as computer monitors, televisions, textiles, and plastic foams)
Pentabromodiphenyl ether (BDE-100)	2009	<0.51	<0.51 - <0.51	N/A	N/A	ppb	N	Flame retardant added to plastics (for products such as computer monitors, televisions, textiles, and plastic foams)
Pentabromodiphenyl ether (BDE-99)	2009	<0.91	<0.91 - <0.91	N/A	N/A	ppb	N	Flame retardant added to plastics (for products such as computer monitors, televisions, textiles, and plastic foams)
Hexabromodiphenyl (BDE-153)	2009	<0.71	<0.71 - <0.71	N/A	N/A	ppb	N	Flame retardant added to plastics (for products such as computer monitors, televisions, textiles, and plastic foams)



## UNREGULATED CONTAMINANT MONITORING RULE 2 (UCMR2) cont'd...

Hexabromodiphenyl (HBB-245)	2009	<0.81	<0.81 - <0.81	N/A	N/A	ppb	N	Flame retardant additive; production of polybrominated biphenyls ended in 1976 in U.S. after an incident of significant accidental agricultural contamination in 1973.
Dinitrobenzene	2009	<0.82	<0.82 - <0.82	N/A	N/A	ppb	N	Used in explosives; also formed as a by-product during the manufacture of the explosive TNT; used in the manufacture of aramid fibers, spandex, and dyes.
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	2009	<1.12	<1.12 - <1.12	N/A	N/A	ppb	N	Used in detonators, primers, mines, rocket boosters, and plastic explosives; used in fireworks and demolition blocks, and as a rodenticide.
Trinitrotoluene (TNT)	2009	<0.82	<0.82 - <0.82	N/A	N/A	ppb	N	Used as an explosive in bombs and grenades, also used as a propellant; small amounts used for industrial explosive applications, such as deep well and underwater blasting; chemical intermediate in manufacture of dyestuffs and photographic chemicals.

## LEAD AND COPPER

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>.

Contaminant	Date Sampled	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2010	1.3	1.3	0.0315	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2010	0	15	1.6	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

## TURBIDITY

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Contaminant	Collection Date	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	2010	1 NTU	0.13 NTU	N	Soil runoff
Lowest monthly % meeting limit	2010	0.3 NTU	100.00%	N	Soil runoff

## TOTAL ORGANIC CARBON

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.

Contaminant	Collection Date	Average Level	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Source Water	2010	7.66	7.0 – 8.8	N/A	N/A	ppm	N	Naturally present in the environment
Drinking Water	2010	5.15	4.4 – 5.7	N/A	N/A	ppm	N	Naturally present in the environment
Removal Ratio	2010	1.24	1.01 – 1.77	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.

## CRYPTOSPORIDIUM MONITORING INFORMATION

In 2009, the City of Mineral Wells tested our raw water monthly for Cryptosporidium, a microbial parasite that may be commonly found in surface water. Cryptosporidium may come from animal and human feces in the water shed. The results of our monitoring detected no cryptosporidium present.

## TOTAL COLIFORM FECAL COLIFORM

REPORTED MONTHLY TESTS FOUND NO COLIFORM BACTERIA.  
REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA.

## SECONDARY AND OTHER CONSTITUENTS NOT REGULATED

(No associated adverse health effects)

Contaminant	Collection Date	Average Level	Range of Levels Detected	Secondary Limit	Units	Violation	Likely Source of Contamination
Bicarbonate	2010	109	109 – 109	N/A	ppm	N	Corrosion of carbonate rocks such as limestone.
Chloride	2010	52.6	52.6 – 52.6	300	ppm	N	Abundant naturally occurring element; used in water purification; byproduct of oil field activity.
Hardness as Ca/Mg	2006	173	173 – 173	N/A	ppm	N	Naturally occurring calcium and magnesium
pH	2010	7.8	7.8 – 7.8	8.5	pH units	N	Measure of corrosivity of water.
Sodium	2010	39.7	39.7 – 39.7	N/A	ppm	N	Erosion of natural deposits; byproduct of oil field activity.
Sulfate	2010	58	58 – 58	300	ppm	N	Naturally occurring; common industrial byproduct; by-product of oil field activity.
Total Alkalinity as CaCO <sub>3</sub>	2010	109	109 – 109	N/A	ppm	N	Naturally occurring soluble mineral salts.
Total Dissolved Solids	2010	307	307 – 307	1000	ppm	N	Total dissolved mineral constituents in water.