

★ CITY OF  
**Plainview**

# 2006 Drinking Water Quality Report

## (Consumer Confidence Report)

### PLAINVIEW MUNICIPAL WATER SYSTEM

PHONE: (806) 296-1153

**Special Notice for the ELDERLY, INFANTS, CANCER PATIENTS, people with HIV/AIDS or other immune problems:** Some people may be more vulnerable to contaminants in drinking water than the general population. 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. The EPA/Centers for Disease Control and Prevention (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 (1-800-426-4791).

#### **We Welcome Your Comments**

There are many opportunities available to learn more about the City of Plainview Water Production department and water quality. For questions or concerns about water quality, contact Darryel Pierce at (806) 296-1153. To request a speaker for your group, call (806) 296-1150. For inquiries about public participation and policy decisions, contact the City Manager at (806) 296-1106. The Water Department is part of the city government. The City Council meets the second and fourth Tuesday of each month. Call (806) 296-1107 for meeting times and location. You may make written comments to the City of Plainview at 901 Broadway, Plainview, Texas 79072.

Si tienes preguntas sobre la calidad del agua, puedes llamar a Felix Villarreal, Operario Principal, Ciudad de Plainview, (806) 296-1154. Tambien puedes escribir a Felix Villarreal, 901 Broadway, Water Treatment Plant, Plainview, Texas 79072, con sus preguntas.

#### **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 attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

**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. Contaminants that may be present in source water before treatment include: microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants, and organic chemical contaminants.

**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. (806) 296-1154 - para hablar con una persona bilingüe en español.

**Where do we get our drinking water?** Our drinking water is obtained from SURFACE AND GROUND water sources. It comes from the following Lake and Aquifer: OGALLALA, LAKE MEREDITH. A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality and will be provided to us this year. The report will describe 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. 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 (1-800-426-4791).

#### **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.

## 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

## 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 health risk. 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 health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

### 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)

pCi/l - Picocuries per liter (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

Year (Range)	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2003-2006	Arsenic <i>* The arsenic value was effective January 23, 2006. In the event of a violation, you will be notified.</i>	4	3	5	10	0	ppb	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
2002-2005	Barium	0.102	0.083	0.128	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
2002-2005	Chromium	2.9	0	7.7	100	100	ppb	Discharge from steel and pulp mills; erosion of natural deposits.
2006	Fluoride <i>* May indicate a secondary constituent violation for fluoride.</i>	2.44	1.82	3.02	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2006	Nitrate	1.41	0.59	2.74	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
2002-2005	Selenium	2.8	0	7.3	50	50	ppb	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
2002-2006	Combined Radium 226 & 228	0.19	0	0.8	5	0	pCi/L	Erosion of natural deposits.
2002-2006	Gross beta emitters	7.04	0	9.9	50	0	pCi/L	Decay of natural and man-made deposits.
2002-2006	Gross alpha	4.68	2.6	9.3	15	0	pCi/L	Erosion of natural deposits.

## Required Additional Health Information for Arsenic

The maximum contaminant level (MCL) for arsenic decreased from 0.05 mg/L (50 ppb) to 0.010 mg/L (10 ppb) effective January 23, 2006. Because the highest reported arsenic level on this report is between 5 ppb and 10 ppb, the following information is required by EPA:

*"While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems."*

## Organic Contaminants

Year (Range)	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2002-2006	Dichloroethane 1,2-	0.12	0	0.95	5	0	ppb	Discharge from industrial chemical factories
2002-2006	Carbon tetrachloride	0.13	0	1.04	5	0	ppb	Discharge from chemical plants and other industrial activities.

## 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.

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Chemical
2002-2006	Disinfectant used	Average Level of CCR year's quarterly	Minimum result single sample	Maximum result single sample	4.0	<4.0	ppm	Disinfectant used to control microbes.
	Free Cl2	.87	.23	1.63				

## Disinfection Byproducts

Year (Range)	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Contaminant
2006	Total Haloacetic Acids	13.6	0	35.2	60	ppb	Byproduct of drinking water disinfection
2006	Total Trihalomethanes	32.8	0	77.7	80	ppb	Byproduct 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.

Year (Range)	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2002-2006	Chloroform	0.48	0	2.64	ppb	Byproduct of drinking water disinfection
2002-2006	Bromoform	2.84	0	12.24	ppb	Byproduct of drinking water disinfection
2002-2006	Bromodichloromethane	1.43	0	8.05	ppb	Byproduct of drinking water disinfection
2002-2006	Dibromochloromethane	3.21	0	17.4	ppb	Byproduct of drinking water disinfection

## Lead and Copper

Year (Range)	Contaminant	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Source of Contaminant
2004	Lead	1.6	0	15	ppb	Corrosion of household plumbing systems; erosion of natural deposits
2004	Copper	0.141	0	1.3	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

## 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.

Year	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Source of Contaminant
2006	Turbidity	0.20	100.00	0.3	NTU	Soil runoff

## Secondary and Other Constituents Not Regulated

(No associated adverse health effects)

Year (Range)	Contaminant	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Contaminant
2002-2005	Aluminum	0.012	0	0.075	50	ppm	Abundant naturally occurring element
2002-2006	Bicarbonate	278	225	342	NA	ppm	Corrosion of carbonate rocks such as limestone
2002-2005	Calcium	51.2	42.3	62.6	NA	ppm	Abundant naturally occurring element
2002-2006	Chloride	59	30	149	300	ppm	Abundant naturally occurring element, used in water purification; by-product of oil field activity
2002-2005	Copper	0.001	0	0.004	1	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
2005-2006	Hardness as Ca/Mg	277	240	322	NA	ppm	Naturally occurring calcium and magnesium
2002-2005	Iron	0.04	0	0.141	.3	ppm	Erosion of natural deposits; iron or steel water delivery equipment of facilities
2002-2005	Magnesium	36	32.3	48	NA	ppm	Abundant naturally occurring element
2002-2006	Manganese	0.0049	0	0.019	.05	ppm	Abundant naturally occurring element
2002-2005	Nickel	0.001	0	0.002	NA	ppm	Erosion of natural deposits
2004-2006	pH	7.8	7.5	7.9	7	units	Measure of corrosivity of water
2002-2005	Sodium	61	39	138	NA	ppm	Erosion of natural deposits; by-product of oil field activity
2002-2006	Sulfate	48	28	104	300	ppm	Naturally occurring; common industrial by-products; by-product of oil field activity
2002-2006	Total Alkalinity as CaCO <sub>3</sub>	263	22.5	281	NA	ppm	Naturally occurring soluble mineral salts
2004-2006	Total Dissolved Solids	452	366	655	1000	ppm	Total dissolved mineral constituents in water
2002-2004	Total Hardness as CaCO <sub>3</sub>	292	246	309	NA	ppm	Naturally occurring calcium
2002-2005	Zinc	0.008	0	0.025	5	ppm	Moderately abundant naturally occurring element; used in the metal industry

**Total Organic Carbon**

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

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Units of Measure	Source of Contaminant
2006	Source Water	2.43	1.94	2.90	ppm	Naturally present in the environment
2006	Drinking Water	2.34	1.93	2.83	ppm	Naturally present in the environment
2006	Removal Ratio	3.4	-2.3	11.9	% removal*	NA
*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 Coliform** REPORTED MONTHLY TESTS FOUND NO COLIFORM BACTERIA

**Fecal Coliform** REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA

**Availability of Unregulated Contaminant Monitoring Rule Data (UCMR)**

We participated in gathering data under the UCMR in order to assist EPA in determining the occurrence of possible drinking water contaminants. If any unregulated contaminants were detected, they are shown in the tables elsewhere in this report. This data may also be found on EPA's web site at <http://www.epa.gov/safewater/data/ncod.html>, or you can call the Safe Drinking Water Hotline at 1-800-426-4791.

**The City maintains a drought contingency plan to preserve the water supply in case of emergency conditions. The plan can be easily implemented if emergency or drought conditions persist for any length of time. The drought contingency plan ensures that ample water will always be available to meet the most critical needs of residents and business.**

**The City of Plainview urges everyone to be water wise. During the summer, 50% - 80% of a household's water consumption is used outdoors. By all working together, we can each do our part to help conserve this most precious commodity!**

**For more information on being a smart water consumer for a free brochure on the subject, feel free to contact the City of Plainview Water Production Department at 806-296-1153.**

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