



ANNUAL  
**WATER REPORT**  
*Water testing  
performed in 2010*



*Presented By*  
**City of Weatherford**

PWS ID#: 1840005

## Continuing Our Commitment

This report is a summary of the quality of water that we provide our customers. The analysis was made by using data from the most recent tests required by the Texas Commission on Environmental Quality (TCEQ). We hope this information helps you to become more knowledgeable about your drinking water. The City of Weatherford Municipal Utility System can assure you that our priority is to supply superior-quality drinking water to our customers.

The Water Purification Plant is responsible for safely treating and delivering an adequate supply of water to our customers. Our water has received a “Superior” rating from TCEQ and exceeds all State and Federal standards.

## Special Notice for the Elderly, Infants, Cancer Patients, and Persons with HIV/AIDS and Other Immune System Problems

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 for infection. These people should seek advice about drinking water from their health care providers. The U.S. 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 at (800) 426-4791 or online at <http://water.epa.gov/drink/hotline>.

## *Cryptosporidium* Monitoring

We participated in an EPA-mandated 24-month *Cryptosporidium* monitoring study of our source water. No *Cryptosporidium* was detected during the 24-month period. *Cryptosporidium* is a microbial pathogen that may be found in water contaminated by feces. Although filtration removes *Cryptosporidium*, it cannot guarantee 100 percent removal nor can the testing methods determine if the organisms are alive and capable of causing cryptosporidiosis, an abdominal infection with nausea and abdominal cramps that may occur after ingestion of contaminated water.

## Where Do We Get Our Drinking Water?

Our drinking water is obtained from two water sources. Our primary water source comes from Lake Weatherford. Lake Benbrook serves as a secondary water supply. TCEQ completed an assessment of our source water, and 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 report. If we receive or purchase water from another system, their susceptibility is not included in this assessment. For more information on source water assessments and protection efforts at our system, please contact us at (817) 598-4275.



## Tap vs. Bottled

Thanks in part to aggressive marketing, the bottled water industry has successfully convinced us all that water purchased in bottles is a healthier alternative to tap water. However, according to a four-year study conducted by the Natural Resources Defense Council, bottled water is not necessarily cleaner or safer than most tap water. In fact, about 25 percent of bottled water is actually just bottled tap water (40 percent, according to government estimates).

The Food and Drug Administration is responsible for regulating bottled water, but these rules allow for less rigorous testing and purity standards than those required by the U.S. EPA for community tap water. For instance, the high mineral content of some bottled waters makes them unsuitable for babies and young children. Furthermore, the FDA completely exempts bottled water that's packaged and sold within the same state, which accounts for about 70 percent of all bottled water sold in the United States.

People spend 10,000 times more per gallon for bottled water than they typically do for tap water. If you get your recommended eight glasses a day from bottled water, you could spend up to \$1,400 annually. The same amount of tap water would cost about 49 cents. Even if you installed a filter device on your tap, your annual expenditure would be far less than what you'd pay for bottled water.

For a detailed discussion on the NRDC study results, check out their Web site at [www.nrdc.org/water/drinking/bw/exesum.asp](http://www.nrdc.org/water/drinking/bw/exesum.asp).

## Lead and Drinking Water

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 Weatherford Municipal Utility System is responsible for providing high-quality drinking water, but 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## Public Meetings

The Weatherford Municipal Utility Board, Administrators, and Water Treatment Professionals will be available for questions regarding water quality issues and the City's Drought Contingency Plan during the July 28, 2011, Board Meeting. The meeting is scheduled to begin at 12:00 p.m. at City Hall (303 Palo Pinto Street). Please call Ms. Sandra Calderon-Garcia at (817) 598-4275 for more information and/or to confirm meeting date and time.

## Questions?

For more information, please contact Ms. Sandra Calderon-Garcia at (817) 598-4275.

## Substances That Could Be in the Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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 can acquire naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

**Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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 stormwater runoff, and residential uses;

**Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and which may also come from gas stations, urban stormwater runoff, and septic systems;

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

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact our business office. For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

## What's a Cross-connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained.

For more information, review the Cross-Connection Control Manual from the U.S. EPA's Web site at <http://water.epa.gov/infrastructure/drinkingwater/pws/crossconnectioncontrol/index.cfm>. You can also call the Safe Drinking Water Hotline at (800) 426-4791.

## Water Conservation Plan

Water is a finite resource. The City of Weatherford supports responsible water usage and encourages all customers to use water wisely. To that end, the City has adopted a Water Conservation and Drought Contingency Plan. The objective is to reduce the per capita consumption of water through practical implementation of efficient water practices. The Drought Contingency Plan provides procedures for voluntary and mandatory actions related to the City's water supply system to be put into action during a water shortage.

The City of Weatherford is promoting water conservation by providing public education in the form of news articles and educational materials by direct mail and in the utility bills. Our long-term plan is to make educational material available from the American Water Works Association, Texas Water Development Board, and the Texas Commission on Environmental Quality.



## Sampling Results

The data tables below list all of the Federally regulated or monitored constituents which have been found in your drinking water. The U.S. EPA requires water systems to test up to 97 different constituents. The State allows us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample taken.

### REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
<b>Barium</b> (ppm)	2004	2	2	0.0624	0.0624–0.0624	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
<b>Beta/Photon Emitters<sup>1</sup></b> (pCi/L)	2005	50	0	6.3	6.3–6.3	No	Decay of natural and man-made deposits
<b>Chloramines</b> (ppm)	2010	[4]	[4]	2.9	1.3–4.3	No	Disinfectant used to control microbes
<b>Fluoride</b> (ppm)	2010	4	4	0.24	0.24–0.24	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
<b>Haloacetic Acids [HAAs]</b> (ppb)	2010	60	NA	20	11.6–27.5	No	By-product of drinking water disinfection
<b>Nitrate</b> (ppm)	2010	10	10	0.08	0.08–0.08	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
<b>TTHMs [Total Trihalomethanes]</b> (ppb)	2010	80	NA	45	18.8–70.6	No	By-product of drinking water disinfection
<b>Total Organic Carbon<sup>2</sup></b> (ppm)	2010	TT	NA	4.51	4.07–4.98	No	Naturally present in the environment

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	HIGHEST SINGLE MEASUREMENT	LOWEST MONTHLY % OF SAMPLES ≤ 0.3 NTU	VIOLATION	TYPICAL SOURCE
<b>Turbidity<sup>3</sup></b> (NTU)	2010	TT	NA	0.40	99.4%	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
<b>Copper</b> (ppm)	2010	1.3	1.3	0.16	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
<b>Lead</b> (ppb)	2010	15	0	2.4	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits

### SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
<b>Chloride</b> (ppm)	2010	300	NA	25.9	25.9–25.9	No	Abundant, naturally occurring element; used in water purification; by-product of oil field activity
<b>pH</b> (Units)	2010	6.5–8.5	NA	8.2	8.2–8.2	No	Naturally occurring
<b>Sulfate</b> (ppm)	2010	300	NA	31.2	31.2–31.2	No	Naturally occurring; common industrial by-product; by-product of oil field activity
<b>Total Dissolved Solids [TDS]</b> (ppm)	2010	1000	NA	245	245–245	No	Total dissolved mineral constituents in water

### INITIAL DISTRIBUTION SYSTEM EVALUATION RESULTS<sup>4</sup>

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
<b>Haloacetic Acids [HAA]–IDSE Results</b> (ppb)	2008	19.38	17.10–20.80	By-product of drinking water disinfection
<b>TTHMs [Total Trihalomethanes]–IDSE Results</b> (ppb)	2008	39.76	36.7–42.40	By-product of drinking water disinfection

## UNREGULATED AND OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
<b>Bicarbonate</b> (ppm)	2010	127	127–127	Corrosion of carbonate rocks such as limestone
<b>Bromodichloromethane</b> <sup>5</sup> (ppb)	2010	16.88	16.88–16.88	By-product of drinking water disinfection
<b>Bromoform</b> <sup>5</sup> (ppb)	2010	4.06	4.06–4.06	By-product of drinking water disinfection
<b>Chloroform</b> <sup>5</sup> (ppb)	2010	7.76	7.76–7.76	By-product of drinking water disinfection
<b>Dibromochloromethane</b> <sup>5</sup> (ppb)	2010	17.99	17.99–17.99	By-product of drinking water disinfection
<b>Hardness as Ca/Mg</b> (ppm)	2006	196	196–196	Naturally occurring Calcium and Magnesium
<b>Sodium</b> (ppm)	2010	24.7	24.7–24.7	Erosion of natural deposits; by-products of oil field activity
<b>Total Alkalinity as CaCO<sub>3</sub></b> (ppm)	2010	117	117–117	Naturally occurring soluble mineral salts



## Definitions

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

**MCL (Maximum Contaminant Level):** 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. Secondary MCLs (SMCL) are set for the control of taste and odor.

**MCLG (Maximum Contaminant Level Goal):** 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.

**MRDL (Maximum Residual Disinfectant Level):** 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.

**MRDLG (Maximum Residual Disinfectant Level Goal):** 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.

**NA:** Not applicable

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**pCi/L (picocuries per liter):** A measure of radioactivity.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

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

<sup>1</sup> The MCL for Beta Particles is 4 mrem/year. The U.S. EPA considers 50 pCi/L to be the level of concern for Beta Particles.

<sup>2</sup> Total organic carbon (TOC) has no health effects. The disinfectant in the water can combine with TOC to form disinfection by-products. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. By-products of disinfection include Trihalomethanes (THMs) and Haloacetic Acids (HAA), which are reported in the tables.

<sup>3</sup> 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, including bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

<sup>4</sup> We were required by the U.S. EPA to conduct an evaluation of our distribution system. This is known as an Initial Distribution System Evaluation (IDSE) and is intended to identify locations in our distribution system that have elevated disinfection by-product concentrations. Disinfection by-products (e.g., HAAs and TTHMs) result from continuous disinfection of drinking water and form when disinfectants combine with organic matter that naturally occurs in the source water. Please contact your water system representative if you have any questions.

<sup>5</sup> Bromoform, Chloroform, Dichlorobromomethane, and Dibromochloromethane are disinfection by-products. There is no Maximum Contaminant Level (MCL) set for these chemicals at the entry point to distribution.