2008 Annual Drinking Water Quality Report

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. EPA/Centers for Disease Control and prevention (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptospridium and other microbial the Safe Drinking Water contaminants are available from Hotline (800-426-4791).

Our Drinking Water is Regulated
By the Texas Commission on Environmental Quality (TCEQ) and they have determined that certain water quality issues exist which prevent our water from meeting all of the requirements as stated in the Federal Drinking Water Standards. Each issue is listed in this report as a violation and we are working closely with the TCEQ to achieve solutions.

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 and 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 Espanol
Este informe incluye informacion importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en espanol, favor de llamar al telefono (903) 693-5616.

Where do we get our drinking water?
Our drinking water is obtained from SURFACE and GROUND water sources. It comes from the following Lake/River/Reservoir/ Aquifer: LAKE MURVAUL, WILCOX AQUIFER. A Source Water Susceptibility Assessment of your drinking water sources 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 of 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 (800-426-4791)

Public Participation Opportunities:
City Council meetings are held at City of Carthage offices located at 812 W Panola on the second and forth Mondays at 5:30 PM. Telephone inquiries are welcome. Contact Byron Roberts at (903) 693-5616.

About the Listed Table:
The tables listed on the reverse side of this report contain all of the federally regulated or monitored contaminant, which have been found in your drinking water. The United States EPA requires water systems to test up to 97 contanminants.

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 EPA. These constituents are not causes for health concerns. 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 not 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 to 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.
NTU - Nephelometic Turbidity Units
pCi/l – picocuries per liter (a measure or radioactivity)
ppb – Parts per billion, or micrograms per liter (ug/l)
ppq – parts per quadrillion, or picogams per liter
MFL- Million fibers per liter (a measure of asbestos)
ppm – Parts per million, or milligrams per liter (mg/l)
ppt – parts per trillion, or nanograms per liter

Inorganic Contaminants

Year or Range	Contaminant	Average Level	Minimum—Maximum Level	MCL	MCLG	Unit of Measure	Source of Constituent
2008	Barium	0.061	0.055 - 0.064	2	2	ppm	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
2008	Fluoride	0.08	0 - 0.12	4	4	ppm	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
2008	Nitrate	0.19	0 - 0.28	10	10	ppm	Runoff from fertilizer use; Leaching from septic tanks, sewage. Erosion of natural deposits.
2005	Gross beta emitters	3.0	3.0 - 3.0	50	0	pCi/L	Decay of natural and man-made deposits

Organic Contaminants TESTING WAIVED,NOT REPORTED, OR NON DETECTED

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	Constituent	Highest Single Meas-urement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Source of Constituent
2008	Turbidity	.30	99.0	0.3	NTU	Soil runoff

Maximum Residual Disinfectant Level

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Chemical
2008	Chloramine	2.10	.5	4.0	4.0	<4.0	ppm	Disinfectant used to control microbes

Disinfection Byproducts

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Contaminant
2008	Total Haloacetic Acids	22.6	0	55	60	ppb	Byproduct of drinking water disinfection
2008	Total Trihalomethanes	44	0	107.7	80	ppb	Byproduct of drinking water disinfection

Unregulated Initial Distribution System Evaluation for Disinfection Byproducts Waived or not yet sampled

Unregulated Contaminants

Bromoform, Chloroform, Dichlorobromomethane, and dibromochloromethane are disinfection byproducts. There is no maximum contaminant level for these chemicals at the entry point to distribution

Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2008 2005	Chloroform	11.17	0	33.5	ppb	Byproduct of drinking water disinfection
2008 2005	Bromoform	.36	0	1.08	ppb	Byproduct of drinking water disinfection
2008 2005	Bromodichloromethane	10.59	0	31.78	ppb	Byproduct of drinking water disinfection
2008 2005	Dibromochloromethane	3.88	0	11.63	ppb	Byproduct of drinking water disinfection

Lead and Copper

Year	Constituent	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Source of Constituent
2007	Lead	1.9	0	15	ppb	Corrosion of household plumbing systems; Erosion of natural deposits
2007	Copper	0.163	0	1.3	ppm	Corrosion of household plumbing systems; Erosion of natural deposits

Recommended Additional Health Information for Lead

All Water Systems are required by EPA to report the language below starting with the 2009 CCR to be delivered to you by July of 2010. We are providing this information now as a courtesy.

"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."

Turbidity

Year	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Source of Contaminant
2008	Turbidity	0.30	99.00	.03	NTU	Soil Runoff

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 pathogens. Byproducts of disinfection include trihalomethanes (THMs)

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2008	Source Water	8.17	7.20	9.41	ppm	Naturally present in the environment
2008	Drinking Water	4.12	3.38	5.05	ppm	Naturally present in the environment
2008	Removal Ratio				50 % removal *	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.

Cryptsporidium Monitoring Information

Total Coliform — Reported monthly tests found no coli form bacteria.
Fecal Coliform — Reported monthly test found no fecal coli form bacteria.

Violations

Violation Type	Health Effects	Duration	Explanation	Steps to Correct
Chemicals–Failure to monitor or report 15 synthetic or-	We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards and is safe for consumption. We did not fully complete all monitoring and/or report the results of that monitoring for drinking water contaminants, and therefore cannot be sure of the quality of our drinking water.	1/1/2008 to 12/31/2008	None	None

Secondary and Other Constituents Not Regulated—(No associated adverse health effects)

Year or Range	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Constituent
2008 2005	Aluminum	0.073	.05	0.1182	.05	ppm	Abundant naturally occurring element
2008 2005	Bicarbonate	77	30	100	N/A	ppm	Corrosion of carbonate rocks such as limestone
2008 2005	Calcium	15.8	14.	19.3	N/A	ppm	Abundant naturally occurring element
2008 2005	Chloride	23	21	25	300	ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity
2008	Hardness as Ca/Mg	56	49	70	N/A	ppm	Naturally occurring calcium and magnesium
2008 2005	Iron	.044	0	.065	.3	ppb	Erosion of Natural deposits; iron or steel water delivery equipment or facilities
2008	Copper	.001	0	.001	N/A	ppb	Corrosion of household plumbing systems; erosion of natural deposits.
208 2005	Magnesium	4.	3.4	5.3	N/A	ppm	Abundant naturally occurring element
2008 2005	Manganese	.0122	.0056	.0155	.05	ppb	Abundant naturally occurring element.
2008 2005	pH	8.	8.	8.	>7	units	Measure of corrosivity of water.
2008 2005	Sodium	38	17	49	N/A	ppm	Erosion of Natural deposits; byproduct of oil field activity
2008 2005	Sulfate	31	23	46	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2008 2005	Total Alkalinity as CaCO3	77	30	100	N/A	ppm	Naturally dissolved mineral constituents in water.
2008 2005	Total Dissolved Solids	191	153	210	1000	ppm	Total Dissolved mineral constituents in water.
2006 2005	Total Hardness as CaCO3	49	28	91	N/A	ppm	Naturally occurring calcium.
2008 2005	Zinc	.006	.00	.008	5	ppb	Moderately abundant naturally occurring element; used in the metal industry

City of Carthage
P O Box 400
Carthage, TX 75633

FIRST CLASS MAIL
U.S. POSTAGE
PERMIT NO. 1
CARTHAGE
TEXAS