

City of Vernon

~ 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. 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)

Public Participation Opportunities:

The City of Vernon conducts a regular City Commission meeting on the fourth Tuesday of each month. The meetings are held in the City Commission Chambers located at the City Hall at 1725 Wilbarger St. beginning at 6:30 P.M. The public is invited to attend. For additional information on these meetings, please contact City Hall at (940) 552-2581.

OUR Drinking Water is Regulated:

By the Texas Commission on Environmental Quality (TCEQ) and they have determined that the high nitrate level in our water prevents it from meeting all the requirements as stated in the Federal Drinking Water Standards. The nitrate level is listed in this report as a violation and we are working closely with the TCEQ to achieve solutions. ***The Nitrate Level is the only current violation for Vernon's drinking water, the water meets all other Federal and State Safe Drinking Water Standards.***

About Water Sources, in general:

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 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 activities. Contaminants that may be present in source water before treatment include: microbes, inorganic contaminants (such as nitrate), pesticides, herbicides, radioactive contaminants, and organic chemical contaminants.

Vernon's Water Comes From:

The City of Vernon receives its water from wells out of the Seymour Aquifer. The well fields are located in Northern Wilbarger County (the Odell and Winston Farm wells), in west Vernon (the Schmoker wells) and in south Vernon (Orbison Park wells, used only as an emergency supply).

The nitrate level, which can be either naturally occurring, or can result from man-made actions (such as using fertilizers for enhancing the soil), or both.

Chlorine is injected into the water for disinfecting purposes. The amount of chlorine residual in the water is tightly controlled to meet the TCEQ standards, and to keep the chlorine residual at lower safer concentrations, which are less likely to cause long-term chronic health effects.

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 tel. (940) 552-2581 – para hablar con una persona bilingue en espanol.

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 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 have been provided as extra information for you) but they greatly effect the appearance and taste of your water.

- ❖ **Maintenance and Repairs:** City of Vernon Water Department Crews are available for making repairs to the water supply and distribution systems. This includes fixing leaks on water mains and service connections, flushing dead-end lines (rusty or dirty water), replacing water meters, etc. If you have an emergency you may call 552-9961 Monday through Friday 8:00 am to 5:00 pm and report it. After hours, weekends and holidays you may call the Vernon Police Department at 553-3311, who in turn will notify an "on-call" water department employee who will respond to the emergency.
- ❖ For any questions or additional information concerning the quality and/or quantity of water you may call Mr. Bob Cochran, Director of Public Works – City of Vernon, at (940) 552-9961.

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 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, triggers treatment or other requirements which a water system must follow.

ABBREVIATIONS:

PPM – parts per million, or milligrams per liter (mg/L)

PPB – parts per billion, or micrograms per liter (ug/L)

ABOUT THE FOLLOWING PAGE:

The page that follows list all of the federally regulated or monitored contaminants, and those of the secondary contaminants, which have been found in YOUR drinking water. The U.S. EPA requires water systems to test for up to 97 contaminants.

City of Vernon - Public Water System # 2440001 - Ground Water Supply from the Seymour Aquifer

TABLE I - Constituents DETECTED in Your Water

INORGANIC CONTAMINANTS (ppm – parts per million) (ppb – parts per billion)							
Constituent	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2005 Fluoride	0.5	0.5	0.5	4	4	ppm	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
2008 Nitrate	15.53	15.3	15.7	10	10	ppm	Runoff from fertilizer use; Leaching from septic tanks Erosion from natural deposits

Organic Contaminants: TESTING WAIVED, NOT REPORTED, OR NONE DETECTED

DISINFECTION BYPRODUCTS (ppb parts per billion)

Year	Constituent	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Contamination
2008	Total Haloacetic Acid	1.5	1	2	60	ppb	By-product from drinking water chlorination
2008	Total Trihalomethanes	5.8	1.4	10.2	80	ppb	By-product from drinking water chlorination

MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL – Maximum Residual Disinfectant Level) (MRDLG – Maximum Residual Disinfectant Level Goal)

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Source of Disinfectant
2008	Chlorine Residual, Free	0.98 ppm	0.53 ppm	1.81 ppm	4.0 ppm	4.0 ppm	Disinfectant used to control microbes.

LEAD AND COPPER (ppb – parts per billion)

Year	Contaminant	The 90 th Percentile	Number of Sites Exceeding Action Level	Action Level	Source of Contaminant
2007	Lead	2.8 ppb	0	15.0 ppb	Corrosion of household plumbing systems; erosion of natural deposits.
2007	Copper	0.177 ppb	0	1.3 ppb	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

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 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 NOT REQUIRED

VIOLATIONS

Violation Type	Health Effect	Duration	Explanation	Steps to Correct
MCL VIOLATION – NITRATE		4/1/2008 to 6/30/2008		1. ION Exchange and Water Softener Vessels must be renovated by modifying the design and redoing the interior surfaces.
MCL VIOLATION – NITRATE	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill, and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.	7/1/2008 to 9/30/2008	Due to operating and design problems the Nitrate Removal Plant was shutdown on May 22, 2007 and will be down until the operating and design problems can be resolved, and an Industrial Wastewater Discharge Permit can be obtained from the Texas Commission on Environmental Quality (TCEQ).	2. The City of Vernon is in the process of applying for an Industrial Wastewater Discharge Permit to be able to discharge the wastewater, generated by the nitrate removal process, direct to the Pease River.
MCL VIOLATION – NITRATE		10/1/2008 to 12/31/2008	The wastewater discharge from the Nitrate Removal Plant is causing damage to the City of Vernon Wastewater Treatment Plant.	

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
2005	Bicarbonate	223	223	223	n/a	ppm	Corrosion of carbonate rocks such as limestone.
2005	Chloride	131	131	131	300	ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity.
2005	pH	7.4	7.4	7.4	>7.0	Units	Measure of corrosivity of water.
2005	Sulfate	4	4	4	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2005	Total Alkalinity as CaCO3	183	183	183	n/a	ppm	Naturally occurring soluble mineral salts.
2005	Total Dissolved Solids	517	517	517	1000	ppm	Total dissolved mineral constituents in water.

Unregulated Initial Distribution System Evaluation for Disinfection Byproducts WAVIED OR NOT YET SAMPLED

Unregulated Contaminants

Bromoform, chloroform ,dischlorobromomethane, 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	Bromoform	1.3	1.3	1.3	ppb	Byproduct of drinking water disinfection
2008	Dibromochloromethane	0.6	0.6	0.6	ppb	Byproduct of drinking water disinfection

Total Coliform

Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.

Year	Contaminant	Highest Monthly Number of Positive Samples	MCL	Unit of Measure	Source of Contaminant
2008	Total Coliform Bacteria	1	*	Presence	Naturally present in the environment.

***Two or more coliform found samples in any single month**

Fecal Coliform REPORTED MONTHLY TEST FOUND NO FECAL COLIFORM BACTERIA