

City of Lake Jackson

2008 Drinking Water Quality Report



OUR DRINKING WATER IS SAFE

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.

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. 979-415-2500 para hablar con una persona bilingue en espanol.

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.

Where do we get our drinking water?

Our drinking water is obtained from surface and ground water sources. It comes from the following: the Gulf Coast Aquifer and the Brazos River. 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. 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.

ALL drinking water may contain contaminants

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 Environmental Protection Agency'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.

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).

About the following pages

The pages that follow list all of the federally regulated or monitored constituents which have been found in your drinking water. U.S. EPA requires water systems to test up to 97 constituents.

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, if exceeded, triggers treatment, or other requirements that 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 |
|--------------|---------------------|---------------|---------------|---------------|-----|------|-----------------|--|
| 2008 - 2005 | Arsenic* | 1 | 0 | 2 | 10 | 0 | ppb | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes. |
| 2008 - 2005 | Barium | 0.14 | 0.116 | 0.152 | 2 | 2 | ppm | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits. |
| 2008 - 2005 | Fluoride* | 2.69 | 0.66 | 3.7 | 4 | 4 | ppm | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories. |
| 2008 | Nitrate | 0.31 | 0 | 0.48 | 10 | 10 | ppm | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits. |
| 2006 | Gross beta emitters | 5.5 | 5.5 | 5.5 | 50 | 0 | pCi/L | Decay of natural and man-made deposits. |
| 2008 - 2005 | Selenium | 2.3 | 0 | 3.5 | 50 | 50 | ppb | Discharge from petroleum and metal refiners; erosion of natural deposits; discharge from mines. |

*Arsenic - The arsenic value was effective January 23, 2006. In the event of a violation, you will be notified.

*Fluoride - May indicate a secondary constituent violation for fluoride.

Organic Contaminants

| Year (Range) | Contaminant | Highest Average | Minimum Level | Maximum Level | MCL | MCLG | Unit of Measure | Source of Contaminant |
|--------------|-------------|-----------------|---------------|---------------|-----|------|-----------------|---|
| 2008 | Atrazine | 0.29 | 0.29 | 0.29 | 3 | 3 | ppb | Runoff from herbicide used on row crops |

Maximum Residual Disinfectant Level

| Year | Contaminant | Average Level | Minimum Level | Maximum Level | MRDL | MRDLG | Unit of Measure | Source of Contaminant |
|------|-------------------|---------------|---------------|---------------|------|-------|-----------------|--|
| 2008 | Chlorine Residual | 1.95 | 0.5 | 3.5 | 4 | 4 | ppm | Disinfectant used to control microbes. |

Disinfection Byproducts

| Year (Range) | Contaminant | Average Level | Minimum Level | Maximum Level | MCL | Unit of Measure | Source of Contaminant |
|--------------|------------------------|---------------|---------------|---------------|-----|-----------------|---|
| 2008 | Total Haloacetic Acids | 12 | 4 | 39.8 | 60 | ppb | Byproduct of drinking water disinfection. |
| 2008 | Total Trihalomethanes | 16.3 | 5.6 | 50.6 | 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 (Range) | Contaminant | Average Level | Minimum Level | Maximum Level | Unit Measure | Source of Contaminant |
|--------------|----------------------|---------------|---------------|---------------|--------------|---|
| 2008 | Chloroform | 1.4 | 1.4 | 1.4 | ppb | Byproduct of drinking water disinfection. |
| 2008 | Bromoform | 1.3 | 1.3 | 1.3 | ppb | Byproduct of drinking water disinfection. |
| 2008 | Bromodichloromethane | 2.4 | 2.4 | 2.4 | ppb | Byproduct of drinking water disinfection. |
| 2008 | Dibromochloromethane | 2.7 | 2.7 | 2.7 | ppb | Byproduct of drinking water disinfection. |

Lead and Copper

| Contaminant Year (Range) | The 90th Percentile | Number of Sites Exceeding Level | Action Level | Unit Measure | Source of Contaminant |
|--------------------------|---------------------|---------------------------------|--------------|--------------|---|
| 2007 Lead | 2 | 0 | 15 | ppb | Corrosion of household plumbing systems; erosion of natural deposits. |
| 2007 Copper | 1.23 | 1 | 1.3 | ppm | 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 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

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 Year (Range) | Highest Single Measurement | Lowest Monthly % of Samples Meeting Limits | Turbidity Limits | Unit of Measure | Source of Contaminant |
|--------------------------|----------------------------|--|------------------|-----------------|-----------------------|
| 2008 Turbidity | 0.30 | 100.00 | 0.3 | NTU | Soil Runoff |

COLIFORMS

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.

| Contaminant Year (Range) | Highest Monthly # 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 bacteria and, in particular, E. coli, are members of the coliform bacteria group originating in the intestinal tract of warm-blooded animals and are passed into the environment through feces. The presence of fecal coliform bacteria (E. coli) in drinking water may indicate recent contamination of the drinking water with fecal material. The following table indicates whether total coliform or fecal coliform bacteria were found in the monthly drinking water samples submitted for testing by your water supplier last year.

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.

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

| Year (Range) | Constituent | Average Level | Minimum Level | Maximum Level | Limit | Unit of Measure | Source of Constituent |
|--------------|---------------------------------------|---------------|---------------|---------------|-------|-----------------|---|
| 2008-2005 | Aluminum | 0.007 | 0 | 0.021 | .05 | ppm | Abundant naturally occurring element. |
| 2008-2005 | Bicarbonate | 189 | 168 | 199 | NA | ppm | Corrosion of carbonate rocks such as limestone. |
| 2008-2005 | Calcium | 56.6 | 54.8 | 60.1 | NA | ppm | Abundant naturally occurring element. |
| 2008-2005 | Chloride | 91 | 88 | 92 | 300 | ppm | Abundant naturally occurring element; used in water purification; byproduct of oil field activity |
| 2008-2005 | Copper | 0.017 | 0.011 | 0.03 | 1 | ppm | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives. |
| 2008-2005 | Iron | 0.043 | 0 | 0.064 | .3 | ppm | Erosion of natural deposits; iron or steel water delivery equipment or facilities. |
| 2008-2005 | Magnesium | 12.1 | 11.9 | 12.6 | NA | ppm | Abundant naturally occurring element. |
| 2008-2005 | Manganese | 0.0094 | 0.0031 | 0.0125 | .05 | ppm | Abundant naturally occurring element. |
| 2008-2005 | Nickel | 0.002 | 0.002 | 0.002 | NA | ppm | Erosion of natural deposits. |
| 2008-2005 | pH | 7.2 | 6.8 | 7.4 | >7.0 | units | Measure of corrosivity of water. |
| 2008-2005 | Sodium | 75 | 61 | 83 | NA | ppm | Erosion of natural deposits; byproduct of oil field activity. |
| 2008-2005 | Sulfate | 66 | 64 | 70 | 300 | ppm | Naturally occurring; common industrial byproduct; byproduct of oil field activity. |
| 2008-2005 | Total Alkalinity as CaCO ₃ | 155 | 138 | 163 | NA | ppm | Naturally occurring soluble mineral salts. |
| 2008-2005 | Total Dissolved Solids | 412 | 383 | 427 | 1000 | ppm | Total dissolved mineral constituents in water. |
| 2008-2005 | Total Hardness as CaCO ₃ | 191 | 185 | 202 | NA | ppm | Naturally occurring calcium. |
| 2008-2005 | Zinc | 0.373 | 0.3 | 0.52 | 5 | ppb | Moderately abundant naturally occurring element; used in the metal industry. |