2012 Annual Drinking Water Quality Report

(Consumer Confidence Report)

CITY OF ROBINSON

www.robinsontexas.org/documents/water-reports/2012_CCR.pdf

254-662-1415

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

To learn about future public meetings (concerning Robinson's water), or to request to schedule one, please call 254-662-1415.

Robinson's Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements

This report is a summary of the quality of the water provided to Robinson customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented on the attached pages. This information is intended to help residents be more knowledgeable about the water supply.

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 254-662-1415 para hablar con una persona bilingüe en español.

Robinson Water Sources

Robinson drinking water is obtained from both surface and ground water sources. The ground water comes from deep wells in the Second (Lower) Trinity Aquifer. Surface water is drawn from the Brazos River and stored in the Robinson Reservoir before treatment. The TCEQ (Texas Commission on Environmental Quality) completed an assessment of your source water and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for you water system are based on this susceptibility and previous sample data. Any detections of these contaminants may be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at the Robinson system contact Greg Hobbs, Water Superintendent.

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 water.

The following part of this report lists all of the federally regulated or monitored contaminants which have been found in Robinson 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 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.

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 (µg/L)
ppt -parts per trillion, or nanograms per liter
ppq -parts per quadrillion, or picograms per liter

Inorganic Contaminants

Collection Date	Contaminant	Highest Single Sample	Range of Levels Detected	MCLG	MCL	Unit of Measure	Violation	Likely Source of Contaminant
08/16/2011	Arsenic	3.3	0 - 3.3	n/a	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
04/13/2011	Barium	.07	0.02 - 0.07	2	2	ppm	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
01/23/2012	Fluoride	2.4	0.19 - 2.39	4	4	ppm	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
01/26/2012	Nitrate	0.22	0.03- 0.22	1	1	ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
08/16/2011	Selenium	11.9	0-11.9	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion Of natural deposits; Discharge from mines

Organic Contaminants

Collection Date	Contaminant	Highest Single Sample	Range of Levels Detected	MCLG	MCL	Unit of Measure	Violation	Likely Source of Contaminant
02/05/2012	Atrazine	0.1	0.1 – 0.1	3	3	ppb	N	Runoff from herbicide used on row crops.

Maximum Residual Disinfectant Level

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Chemical
2012	*Chlorine*	1.2	*.80*	*2.5*	4.0	<4.0	ppm	Disinfectant used to control microbes.

Disinfection Byproducts

Year or Range	Contaminant	Highest Level Detected	Range of Levels Detected	MCGL	MCL	Unit of Measure	Violation	Source of Contaminant
2012	Total Haloacetic Acids	26.0	0 – 26.0	No goal for the total	60	ppb	N	Byproduct of drinking water disinfection.
2012	Total Trihalomethanes	100.0	3.8 – 100.0	No goal for the total	80	ppb	N	Byproduct of drinking water disinfection.

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	Highest Single Sample	Range of Levels Detected	Unit of Measure	Source of Contaminant
10/18/2012	Chloroform	16.0	.1 – 16.0	ppb	Byproduct of drinking water disinfection
07/05/2012	Bromodichloromethane	32	.1 – 32	ppb	Byproduct of drinking water disinfection
07/05/2012	Bromoform	25.4	1.2-254.4	ppb	Byproduct of drinking water disinfection
07/05/2012	Dibromochloromethane	42.0	1.2 – 42.0	ppb	Byproduct of drinking water disinfection

Violation Type	Violation Begin	Violation End	Violation Explanation
No Violations			

Lead and Copper

Date	Contaminant	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Violation	Source of Contaminant
06/17/2010	Lead	0.346	0	15	ppb	N	Corrosion of household plumbing systems; erosion of natural deposits.
06/17/2010	Copper	0.0613	0	1.3	ppm	N	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

"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 (1-800-426-4791) 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.

Year	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Violation	Source of Contaminant
2012	Turbidity	.09	100.00	0.3	NTU	N	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) and haloacetic acids (HAA) which are reported elsewhere in this report.

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	MCLG	Source of Contaminant
2012	Source Water	5.27	4.68	5.64	ppm		Naturally present in the environment
2012	Drinking Water	2.19	1.86	2.37	ppm		Naturally present in the environment
2012	Removal Ratio	1.66	1.54	1.86	% 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.*

Cryptosporidium Monitoring Information: NOT YET SAMPLED
Total Coliform: REPORTED MONTHLY TESTS FOUND NO COLIFORM BACTERIA.
Fecal Coliform: REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA.

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
2011	Bicarbonate	370	75	434	NA	ppm	Corrosion of carbonate rocks such as limestone.
2011	Calcium	4.5	3.26	7.28	NA	ppm	Abundant naturally occurring element.
2012	Chloride	196	0	174	300	ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity
2011	Copper	0.047	0.003	0.02	1	ppm	Corrosion of household plumbing systems: erosion of natural deposits; leaching from wood
2011	Iron	0.031	0.02	0.048	.3	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
2011	Magnesium	2.4	0	7.4	NA	ppm	Abundant naturally occurring element.
2011	Manganese	0.0008	0	0.0018	.05	ppm	Abundant naturally occurring element.
2012	pH	7.7	7.7	8.0			Measure of corrosivity of water.
2012	Sodium	No Average	114	114	NA	ppm	Erosion of natural deposits; byproduct of oil field activity.
2012	Sulfate	No Average	71	71	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2011	Total Alkalinity as CaCO3	306	61	362	NA	ppm	Naturally occurring soluble mineral salts.
2012	Total Dissolved Solids	No Average	486	486	1000	ppm	Total dissolved mineral constituents in water.
2011	Total Hardness as CaCO3	15	7.7	8.14	NA	ppm	Naturally occurring calcium.