

Annual Drinking Water Quality Report

TX0200407

CITY OF MANVEL

Annual Water Quality Report for the period of January 1 to December 31, 2013

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

CITY OF MANVEL is Ground Water

For more information regarding this report contact:

Name Mike White
Phone (281)489-0630

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (281)489-0630.

Sources of Drinking Water

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.

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 at (800) 426-4791.

Contaminants 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, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water 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 storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 the system's business office.

You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer; persons who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders, can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care providers. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline (800-426-4791).

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. We are 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 <http://www.epa.gov/safewater/lead>.

Information about Source Water Assessments

A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality. This information describes 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 allows us to focus source water protection strategies.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL:
<http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=>

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: <http://dww.tceq.texas.gov/DWW>

Source Water Name	Type of Water	Report Status	Location	
2 - SCHOOL RD	SCHOOL RD	GW	Complete	See link below
3 - MANVEL JR. HIGH, ALVIN ISD WELL		GW	Complete	See link below
4 - SCHOOL RD		GW	Complete	See link below

http://dww.tceq.texas.gov/DWW/JSP/SWAP.jsp?tinwsys_is_number=546&tinwsys_st_code=TX&wsnumber=TX0200407 &DWWState=TX

Note: A Copy of the Source Water Assessment Results has been included with this CCR as well as the related definitions.

The City of Manvel water source is the Gulf Coast Aquifer. Groundwater is pumped via City owned water wells, treated to minimize heavy concentrations of minerals and then disinfected with chlorine before it is either stored or distributed directly to the homes and businesses of the area. Any other chemicals or minerals listed in the following report are naturally occurring contaminants present in all groundwater and are a result of natural processes in the aquifer and/or a result of storm water run-off.

The City of Manvel complies with all State and Federal monitoring regulations including monthly bacteriological testing.

Water Quality Test Results

Definitions:	The following tables contain scientific terms and measures, some of which may require explanation.
Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
Maximum Contaminant Level or MCL:	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.
Maximum Contaminant Level Goal or MCLG:	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.
Maximum residual disinfectant level or MRDL:	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.
Maximum residual disinfectant level goal or 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 contaminants.
MFL	million fibers per liter (a measure of asbestos)
na:	not applicable.
NTU	nephelometric turbidity units (a measure of turbidity)
pCi/L	picocuries per liter (a measure of radioactivity)
ppb:	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
ppm:	milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.
ppt	parts per trillion, or nanograms per liter (ng/L)
ppq	parts per quadrillion, or picograms per liter (pg/L)

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)*	2013	1.1	0 - 1.1	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2013	8.8	4.7 - 8.8	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	03/13/2012	4.4	4.3 - 4.4	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	03/13/2012	0.0968	0.0896 - 0.0968	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	03/13/2012	1.34	1.32 - 1.34	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	03/13/2012	1	1 - 1	0	5	pCi/L	N	Erosion of natural deposits.

Violations Table

Lead and Copper Rule			
The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.			
Violation Type	Violation Begin	Violation End	Violation Explanation
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2011	2013	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2013	2013	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Texas Commission on Environmental Quality	Office of Water	Public Drinking Water Section
County Map of TX	Water System Search	Office of Compliance and Enforcement

Water System Detail			
Water System Facilities	Violations	Enforcement Actions	TCR Sample Results
Source Water Assessment Results			TTHM HAA5 Summaries
Sample Points	Assistance Actions	Recent Positive TCR Results	PBCU Summaries
Sample Schedules / FANLs / Plans	Compliance Schedules	Other Chemical Results	Chlorine Summaries
Site Visits Milestones	TOC/Alkalinity Results	Chemical Results: Sort by: Name Code	Turbidity Summaries
Operators All POC	LRAA (TTHM/HAA5)	Recent Non-TCR Sample Results	TCR Sample Summaries
Glossary			

Water System Detail Information			
Water System No.:	TX0200407	Federal Type:	C
Water System Name:	CITY OF MANVEL	Federal Source:	GW
Principal County Served:	BRAZORIA	System Status:	A
Principal City Served:		Activity Date:	01-01-1913

Source Water Susceptibility Assessment Result Interpretation

System Susceptibility Summary										
Asbestos	Cyanide	Metals	Microbial	Minerals	Radiochemical	Sythetic Organic Chemicals	Disinfection Byproduct	Volatile Organic Chemicals	Drinking Water Contaminant Candidate	Other
LOW	LOW	HIGH	LOW	LOW	LOW	LOW	LOW	MEDIUM	HIGH	LOW

Entry Point Susceptibility Summary											
Entry Point ID	Asbestos	Cyanide	Metals	Microbial	Minerals	Radiochem	Sythetic Organic Chemicals	Disinfection Byproduct	Volatile Organic Chemicals	Drinking Water Contaminant Candidate	Other
001	-----	LOW	HIGH	HIGH	HIGH	MEDIUM	MEDIUM	LOW	HIGH	HIGH	MEDIUM
002	LOW	LOW	HIGH	LOW	LOW	LOW	LOW	LOW	MEDIUM	HIGH	LOW

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SWSA Result Interpretation

>> Questions or Comments:
pdws@tceq.texas.gov

SWSA Result Interpretation

Explains the meaning of high, medium, and low in the context of a source water susceptibility assessment.
The SWSA susceptibility ratings are divided into three divisions: "High," "Medium," and "Low."

Question: What does "High" mean?

Answer: "High" susceptibility means there are activities near the source water and the natural conditions of the aquifer or watershed make it very likely that chemical constituents may come into contact with the source water. It does **not** mean that there are any health risks present.

Question: What does "Medium" mean?

Answer: "Medium" susceptibility means there are activities near the source water and the natural conditions of the aquifer or watershed make it somewhat likely that chemical constituents may come into contact with the source water. It does **not** mean that there are any health risks present.

Question: What does "Low" mean?

Answer: "Low" susceptibility means there are activities near the source water and the natural conditions of the aquifer or watershed make it unlikely that chemical constituents may come into contact with the source water. It does **not** mean that there are any health risks present.

For more information, [contact us](#).

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