City of Pass Christian 2014 Drinking Water Report

#2410009

Is my water safe?
Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. Local Water vigilantly safeguards its water supplies and once again we are proud to report that our system has not violated a maximum contaminant level or any other water quality standard.

Do I need to take special precautions?
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 (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Where does my water come from?
Our water comes from four deep water wells that draw water from the Pascagoula Formation, approximately 900 feet below the ground surface.

Source water assessment and its availability
A Source Water Assessment has been completed by the Mississippi Department of Environmental Quality. It indicates that all four of our wells are rated as a "MODERATE" risk for future contamination by groundwater. The complete report is available for review at the Water Department Billing Office.

Why are there contaminants in my drinking water?
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 (EPA) Safe Drinking Water Hotline (800-426-4791). 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: microbial contaminants, such as viruses and bacteria, that 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; and 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 that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

How can I get involved?
The Pass Christian Board of Aldermen has a regularly scheduled meeting on the first and third Tuesday of each month, beginning at 6:00 PM. All customers of the Pass Christian Water System are invited to attend. This consumer confidence report will not be mailed to the customers of the water system. In accordance with MSDH regulations, customer notification of these results will be accomplished by this publication.

Additional Information for Lead

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. Pass Christian 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. The Mississippi State Department of Health Public Health Laboratory offers lead testing for $10 per sample. Please contact 601.576.7582 if you wish to have your water tested.

Monitoring and reporting of compliance data violations

*******April 1, 2013 MESSAGE FROM MSDH CONCERNING RADIOLOGICAL SAMPLING*******

In accordance with the Radionuclides Rule, all community public water supplies were required to sample quarterly for radionuclides beginning January 2007 – December 2007. Your public water supply completed the sampling by the scheduled deadline; however, during an audit of the Mississippi State Department of Health Radiological Laboratory, the Environmental Protection Agency (EPA) suspended analyses and reporting of radiological compliance samples and results until further notice. Although this was not the result of inaction by the public water supply, MSDH was required to issue a violation. This is to notify you that as of this date, your water system has completed the monitoring requirements and is now in compliance with the Radionuclides Rule. If you have any questions, please contact Karen Walters, Director of Compliance and Enforcement, Bureau of Public Water Supply, at (601)576.7518.

In accordance with MSDH regulations, customer notification of these results will be accomplished by this publication. A copy of the CCR will not be mailed to our customers, but is available for review at the office of the Water and Sewer Operator or City Hall.

Water Quality Data Table

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Range Low	Range High	Sam Date	Violation	Typical Source
Disinfectants & Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.)								
Haloacetic Acids (HAA5) (ppb)	NA	60	15.0	NA		2014	No	By-product of drinking water chlorination
Chlorine (as Cl2) (ppm)	4	4	1.6	0.80	3.00	2014	No	Water additive used to control microbes
TTHMs [Total Trihalomethanes] (ppb)	NA	80	1.29	NA		2014	No	By-product of drinking water disinfection
Inorganic Contaminants								
Antimony (ppm)	NA	0.006	<0.0005	NA		2014	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.
Arsenic (ppm)	NA	.010	<0.0005	NA		2014	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	NA	2	0.0133	.0074	.0133	2014	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beryllium (ppm)	NA	0.004	<0.0005	NA		2014	No	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries
Cadmium (ppm)	NA	0.005	<0.0005	NA		2014	No	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries and paints
Chromium (ppm)	NA	0.1	0.0082	.0031	.0082	2014	No	Discharge from steel and pulp mills; Erosion of natural deposits
Cyanide [as Free Cn] (ppm)	NA	0.2	<0.015	NA		2014	No	Discharge from plastic and fertilizer factories; Discharge from

Fluoride (ppm)	NA	4	0.382	0.187	0.382	2014	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Mercury [Inorganic] (ppm)	NA	0.002	<0.0005	NA		2014	No	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland
Nitrate [measured as Nitrogen] (ppm)	10	10	0.08	NA		2014	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrate + Nitrite [measured as Nitrogen] (ppm)	10	10	0.1	NA		2014	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite [measured as Nitrogen] (ppm)	1	1	0.02	NA	0.05	2014	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppm)	NA	0.05	<0.0025	NA		2014	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Thallium (ppm)	NA	0.002	<0.0005	NA		2014	No	Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories
Volatile Organic Contaminants								
1,1,1-Trichloroethane (ppb)	200	200	<0.5	NA		2014	No	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane (ppb)	3	5	<0.5	NA		2014	No	Discharge from industrial chemical factories
1,1-Dichloroethylene (ppb)	7	7	<0.5	NA		2014	No	Discharge from industrial chemical factories
1,2,4-Trichlorobenzene (ppb)	70	70	<0.5	NA		2014	No	Discharge from textile-finishing factories
1,2-Dichloroethane (ppb)	0	5	<0.5	NA		2014	No	Discharge from industrial chemical factories
1,2-Dichloropropane (ppb)	0	5	<0.5	NA		2014	No	Discharge from industrial chemical factories
Benzene (ppb)	0	5	<0.5	NA		2014	No	Discharge from factories; Leaching from gas storage tanks and landfills
Carbon Tetrachloride (ppb)	0	5	<0.5	NA		2014	No	Discharge from chemical plants and other industrial activities
cis-1,2-Dichloroethylene (ppb)	70	70	<0.5	NA		2014	No	Discharge from industrial chemical factories
Dichloromethane (ppb)	0	5	<0.5	NA		2014	No	Discharge from pharmaceutical and chemical factories
Ethylbenzene (ppb)	700	700	<0.5	NA		2014	No	Discharge from petroleum refineries
o-Dichlorobenzene (ppb)	600	600	<0.5	NA		2014	No	Discharge from industrial chemical factories
p-Dichlorobenzene (ppb)	75	75	<0.5	NA		2014	No	Discharge from industrial chemical factories
Chlorobenzene (ppb)	100	100	<0.5	NA		2014	No	Discharge from industrial chemical factories

Styrene (ppb)	100	100	<0.5	NA	2014	No	Discharge from rubber and plastic factories; Leaching from landfills
Tetrachloroethylene (ppb)	0	5	<0.5	NA	2014	No	Discharge from factories and dry cleaners
Toluene (ppb)	1000	1000	<0.5	NA	2014	No	Discharge from petroleum factories
trans-1,2-Dicholoroethylene (ppb)	100	100	<0.5	NA	2014	No	Discharge from industrial chemical factories
Trichloroethylene (ppb)	0	5	<0.5	NA	2014	No	Discharge from metal degreasing sites and other factories
Vinyl Chloride (ppb)	0	2	<0.5	NA	2014	No	Leaching from PVC piping; Discharge from plastics factories
Xylenes (ppm)	10000	10000	<0.5	NA	2014	No	Discharge from petroleum factories; Discharge from chemical factories

Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source
Inorganic Contaminants							
Copper - action level at consumer taps (ppm)	1.3	1.3	0.3	2007	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	0	15	3	2007	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

Contaminants	MCL	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source
Combined Uranium (ppb)	30		0.5	9/2013	0	No	
Combined Uranium (ppb)	30		0.5	9/2013	0	No	
Radium - 226 (PCI/L)	NA		<0.407	9/2013	0	No	
Radium - 226 (PCI/L)	NA		<0.42	9/2013	0	No	
Radium - 228 (PCI/L)	NA		<0.58	9/2013	0	No	
Radium - 228 (PCI/L)	NA		<0.287	9/2013	0	No	
Gross Alpha Particle Activity (PCI/L)	15		0.4	9/2013	0	No	
Gross Alpha Particle Activity (PCI/L)	15		1.0	9/2013	0	No	

Unit Descriptions	
Term	**Definition**
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
PIC/L	Picocuries per liter
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions

Term	Definition
MCLG	MCLG: Maximum Contaminant Level Goal: 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.
MCL	MCL: Maximum Contaminant Level: 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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. 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.
MRDL	MRDL: Maximum residual disinfectant level. 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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

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