

June 2009

Annual Report on the Quality of Drinking Water

Public Water Systems 0240001, 0240036 & 0240084



To: City of Biloxi water customers
From: City of Biloxi

We are pleased to present the Annual Report on the Quality of Drinking Water, and we're proud to notify you that this latest assessment of the city's water systems shows that the drinking water your city is providing you on a daily basis either meets or exceeds all federal and state requirements.

Your drinking water is indeed safe.

This report provides detailed information on the quality of water and related services, and determines the overall susceptibility that the source of our water faces from identified potential contaminants. The report also advises you of our ongoing efforts to improve the water-treatment process and protect our community's water resources.

We are committed to ensuring the quality of the water we provide to you. Our supply of water, by the way, originates from wells that draw from the Pascagoula Formation, Graham Ferry Formation and the Miocene Series Aquifer.

We have learned through our monitoring and testing that some constituents have been detected; however, the Environmental Protection Agency has determined that the levels detected pose no health risk.

The source water assessment has been completed for our public water system to determine the overall susceptibility of its drinking water supply to identified potential sources of contamination. The general susceptibility rankings assigned to each well of this system are provided in the accompanying chart. A report containing detailed information on how the susceptibility determinations were made is available for viewing upon request.

The wells for the City of Biloxi PWS ID#: 240001 have received a moderate susceptibility ranking to contamination; the wells for PWS ID#: 240036 have received moderate to higher susceptibility rankings to contamination; the wells for PWS ID #: 240084 have received lower to moderate susceptibility rankings to contamination.

If you have any questions about this report or concerning your water utility, please contact Richard Sullivan at 228-435-6271. You may also attend a City Council meeting on either the first, third, or fourth Tuesday of each month at 1:30 p.m. at the Biloxi City Hall, 140 Lameuse Street.

We routinely monitor for constituents in your drinking water according to federal and state laws. The accompanying tables list all of the drinking water contaminants that we detected for testing conducted between Jan. 1 to Dec. 31, 2008. In cases where monitoring wasn't required in 2008, the table reflects the most recent results.

As water travels over the surface of land or underground, it dissolves naturally occurring minerals and, in some cases, radioactive materials and can pick up substances or contaminants 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 stormwater 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 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 that limit the amount of certain contaminants in water provided by public water systems.

All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily indicate that the water poses a health risk.

As you can see by the accompanying table, our system had no contaminant violations.

We are required to monitor your drinking water for specific constituents on a monthly basis. Results of regular monitoring are an indicator of whether our drinking water meets health standards. Beginning January 1, 2004, the Mississippi State Department of Health (MSDH) required public water systems that use chlorine as a primary disinfectant to monitor/test for chlorine residuals as required by the Stage 1 Disinfection By-Products Rule. We did complete the monitoring requirements for bacteriological sampling that showed no coliform present. In an effort to ensure systems complete all monitoring requirements, MSDH now notifies systems of any missing samples before the end of the compliance period.

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. Our Water Association 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.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All 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 the 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 at 1-800-426-4791.

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/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline 1-800-426-4791.

A message from the Mississippi Department of Health 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 sampling by the scheduled deadline; however, during an audit of the Mississippi State Department of Health Radiological Health Laboratory, the Environmental Protection Agency 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. The Bureau of Public Water Supply is taking action to resolve this issue as quickly as possible. If you have any questions, please contact Melissa Parker, Deputy Director, Bureau of Public Water Supply, at 601.576.7518.

The City of Biloxi works around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

Here are definitions of some of the terms and abbreviations in the charts:

- **Action Level** – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Maximum Contaminant Level (MCL)** – The “Maximum Allowed” (MCL) is 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 (MCLG)** – The “Goal” (MCLG) is 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.
- **Parts per million (ppm) or Milligrams per liter (mg/l)** – One part per million corresponds to one minute in two years or a single penny in \$10,000.
- **Parts per billion (ppb) or Micrograms per liter** – One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **Picocuries per liter (pCi/L)** – Picocuries per liter is a measure of the radioactivity in water.

Test Results of City of Biloxi Public Water Systems 0240001, 0240036 & 0240084

Public Water System 240001 - Test Results								
Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/ACL	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants								
8. Arsenic	N	2008	.392	.1 – .392	ppb	n/a	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
10. Barium	N	2008	.008	.001 - .008	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
13. Chromium	N	2008	1.1	.5 – 1.1	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper	N	2005/07*	.1	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
16. Fluoride*s*	N	2008	.387	.196 - .652	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead	N	2005/07*	4	0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
21. Selenium	N	2008	1.8	.8 – 1.8	ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Volatile Organic Contaminants								
56. Carbon tetrachloride	N	2008	2.27	No Range	ppb	0	5	Discharge from chemical plants and other industrial activities
Disinfection By-Products								
81. HAA5	N	2008	12	No Range	ppb	0	60	By-Product of drinking water disinfection.
82. TTHM [Total trihalomethanes]	N	2008	23.80	No Range	ppb	0	80	By-product of drinking water chlorination.
Chlorine	N	2008	.95	.34 - .95	ppm	0	MDRL = 4	Water additive used to control microbes

Public Water System 240036 - Test Results

<i>Contaminant</i>	<i>Violation Y/N</i>	<i>Date Collected</i>	<i>Level Detected</i>	<i>Range of Detects or # of Samples Exceeding MCL/ACL</i>	<i>Unit Measurement</i>	<i>MCLG</i>	<i>MCL</i>	<i>Likely Source of Contamination</i>
Inorganic Contaminants								
10. Barium	N	2008	.008	.001 - .008	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
13. Chromium	N	2008	.8	No Range	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper	N	2008	.1	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
16. Fluoride	N	2008	.335	.309 - .335	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead	N	2008	4	0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
19. Nitrate (as Nitrogen)	N	2008	.09	No Range	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion
Disinfection By-Products								
81. HAA5	N	2008	13	No Range	ppb	0	60	By-Product of drinking water disinfection.
82. TTHM [Total trihalomethanes]	N	2008	31.32	No Range	ppb	0	80	By-product of drinking water chlorination.
Chlorine	N	2008	1.44	.1 - 1.44	ppm	0	MDRL = 4	Water additive used to control microbes

Public Water System 240084 - Test Results

<i>Contaminant</i>	<i>Violation Y/N</i>	<i>Date Collected</i>	<i>Level Detected</i>	<i>Range of Detects or # of Samples Exceeding MCL/ACL</i>	<i>Unit Measurement</i>	<i>MCLG</i>	<i>MCL</i>	<i>Likely Source of Contamination</i>
Radioactive Contaminants								
5. Alpha emitters	N	2008	.37	.16 - .37	pCi/L	0	15	Erosion of natural deposits
6. Radium 226	N	2008	.421	.167 - .421	pCi/l	0	5	Erosion of natural deposits
Radium 228			.419	.011 - .419				
7. Uranium ¹	N	2008	.37	.16 - .37	ug/L	01	301	Erosion of natural deposits
Inorganic Contaminants								
10. Barium	N	2008	.006	.02 - .06	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
13. Chromium	N	2008	2	No Range	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper	N	2008	.1	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
16. Fluoride	N	2008	.357	.159 - .357	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead	N	2008	4	0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
21. Selenium	N	2006	.9	No Range	ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Disinfection By-Products								
81. HAA5	N	2008	10	No Range	ppb	0	60	By-Product of drinking water disinfection.
82. TTHM [Total trihalomethanes]	N	2008	51.51	No Range	ppb	0	80	By-product of drinking water chlorination.
Chlorine	N	2008	.87	.22 - .87	ppm	0	MDRL = 4	Water additive used to control microbes

*Most recent sample. No sample required for 2008.

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Mayor A.J. Holloway and the Biloxi City Council

George Lawrence • William "Bill" Stallworth • Charles T. Harrison Jr.
Mike Fitzpatrick • Tom Wall • Edward "Ed" Gemmill • David Fayard



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Biloxi, MS 39533

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