

Annual Report on the Quality of Drinking Water

Public Water Systems 0240001, 0240036, 0240084 and 0240255 – April 2019



The Federal Safe Drinking Water Act requires community public water systems to develop and distribute a Consumer Confidence Report to customers each year. The City of Biloxi operates three water systems, which are served by nearly two dozen water wells throughout the city's 50 square miles.

The source water assessment for Biloxi's three public water systems has been completed to determine the overall susceptibility of the city's drinking water supply to identified potential sources of contamination. This report informs you about the quality of water the city delivers to you every day.

Water source: Biloxi's water source is from wells drawing from the Pascagoula Formation, Graham Ferry Formation and the Miocene Series Aquifer.

The findings: Water wells for the City of Biloxi public water systems have received lower to higher susceptibility rankings to contamination. What does this mean? To determine susceptibility rankings and findings for your neighborhood, consult the list of water wells in this report and then refer to the corresponding water system findings.

The bottom line: The results in this report show that Biloxi's water system had no violations. The drinking water supplied by the city meets or exceeds all federal and state requirements. Monitoring and testing has detected some contaminants, but the Environmental Protection Agency has determined that your water is safe at these levels.

Etc.: 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 contaminants. It's important to remember that the presence of these contaminants does not necessarily indicate that the water poses a health risk.

Testing period: To satisfy federal and state regulations, the city on a monthly basis monitors your drinking water for specific contaminants. Results of regular monitoring are an indicator of whether the drinking water meets health standards. The Mississippi State Department of Health monitors the city's monthly reports. The tables in this report list drinking water contaminants detected between Jan. 1 and Dec. 31, 2018. In cases where monitoring wasn't required in 2018, the table reflects the most recent results.

Questions and more info: If you have any questions about this report or quality of your water, contact Tracey Forehand in the city's Public Works Department at 228-435-6271 or tforehand@biloxi.ms.us. A detailed report on how the susceptibility determinations were made is available for viewing upon request.

Council meetings: You also can attend any meeting of the Biloxi City Council. A section of each meeting is set aside for citizen comments. The council's regularly scheduled meetings are on the first, third, and last Tuesdays of each month at the Biloxi City Hall, 140 Lameuse St. You can find council agendas online at biloxi.ms.us.

Origin of contaminants: As water travels over land or underground, it dissolves naturally occurring minerals and, in some cases, radioactive materials. In its travels, the water can pick up substances or contaminants from animals or 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 and septic systems; and radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

Lead warnings: 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. The city is responsible for providing high quality drinking water, but cannot control materials used in plumbing components.

Minimize the risk: 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 two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may 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 www.epa.gov/ground-water-and-drinking-water. The Mississippi State Department of Health Public Health Laboratory offers lead testing. Call 601-576-7582 for information on testing.

Typical contamination: All sources of drinking water are subject to potential contamination by substances, either naturally occurring or man-made. 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. For more information about contaminants and potential health effects, call the EPA's Safe Drinking Water Hotline at 1-800-426-4791 or visit www.epa.gov/ground-water-and-drinking-water.

Vulnerable citizens: Some people may be more vulnerable to contaminants in drinking water. Immuno-compromised persons – such as those undergoing chemotherapy, persons who have undergone organ transplants, those with HIV/AIDS or other immune system disorders, and some elderly and infants - can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. Guidelines from the EPA and the Centers for Disease Control provide appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants. Call the Safe Drinking Water Hotline, 1-800-426-4791 or visit www.epa.gov/ground-water-and-drinking-water.

In these tables, you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

- **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.

- **Maximum Residual Disinfectant Level (MRDL)** – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control microbial contaminants.
- **Maximum Residual Disinfectant Level Goal (MRDLG)** – The level of a drinking water disinfectant below which there is no known or expected risk of health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **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.

Test Results – PWS ID#: 0240001

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
Microbiological Contaminants								
Total Coliform Bacteria	N	October	Positive	1	NA	0	presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Radioactive Contaminants								
5. Gross Alpha	N	2018	5.2	4.1 – 5.2	pCi/L	0	15	Erosion of natural deposits
6. Radium 226 Radium 228	N	2018	.71 .87	.21 – .71 .67 – .87	pCi/L	0	5	Erosion of natural deposits
Inorganic Contaminants								
10. Barium	N	2018	.0191	.004 – .0191	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
13. Chromium	N	2018	3.1	.7 – 3.1	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper	N	2016/18	.1	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
16. Fluoride	N	2018	.454	.177 – .454	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead	N	2016/18	2	0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Disinfection By-Products								
81. HAA5	N	2017*	12	3 – 12	ppb	0	60	By-product of drinking water disinfection
82. TTHM [Total trihalomethanes]	N	2017*	40.2	1.99 – 40.2	ppb	0	80	By-product of drinking water chlorination
Chlorine	N	2018	1.3	.2 – 3.7	mg/l	0	MDRL = 4	Water additive used to control microbes
Unregulated Contaminants								
Chloromethane	N	2013*	0.394	No Range	UG/L	0	MRL 0.2	Halogenated alkane; used as foaming agent, in production of other substances, and by-product that can form when chlorine used to disinfect drinking water
Chromium-6	N	2013*	0.045	0.039 – 0.045	UG/L	0	MRL 3.03	Naturally-occurring element; used in making steel and other alloys. Forms are used for chrome plating, dyes and pigments, leather tanning and wood preservation
Strontium	N	2013*	37.346	7.479 – 37.346	UG/L	0.3	MRL 0.3	Naturally-occurring element found in the earth's crust and at low concentrations in seawater, and in some surface and ground water; cobaltous chloride was formerly used in medicines and as a germicide
Vanadium	N	2013*	.258	.21 – .258	UG/L		MRL 0.2	Naturally-occurring elemental metal; used as vanadium pent oxide which is a chemical intermediate and a catalyst

Test Results – PWS ID#: 0240036

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								
10. Barium	N	2018	.0017	.0012 – .0017	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
13. Chromium	N	2018	1.7	.8 – 1.7	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper	N	2015/17*	0	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
16. Fluoride	N	2018	.351	.244 – .351	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead	N	2015/17*	1	0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Disinfection By-Products								
81. HAA5	N	2017*	14	No Range	ppb	0	60	By-product of drinking water disinfection
82. TTHM [Total trihalomethanes]	N	2017*	30.5	No Range	ppb	0	80	By-product of drinking water chlorination
Chlorine	N	2018	2.1	.5 – 3.2	mg/l	0	MDRL = 4	Water additive used to control microbes

Test Results – PWS ID#: 0240084

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
Radioactive Contaminants								
5. Gross Alpha	N	2018	4.1	2 – 4.1e	pCi/L	0	15	Erosion of natural deposits
6. Radium 226 Radium 228	N	2018	.41 .74	.35 – .41 .54 – .74	pCi/L	0	5	Erosion of natural deposits
Inorganic Contaminants								
10. Barium	N	2018	.0051	.0016 – .0051	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
13. Chromium	N	2018	3	1 – 3	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper	N	2016/18	.2	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
16. Fluoride	N	2018	.373	.185 – .373	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead	N	2016/18	2	0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Disinfection By-Products								
81. HAA5	N	2018	12	No Range	ppb	0	60	By-Product of drinking water disinfection
82. TTHM [Total trihalomethanes]	N	2018	25	19.7 – 25	ppb	0	80	By-product of drinking water chlorination
Chlorine	N	2018	1.53	.5 – 3	mg/l	0	MDRL = 4	Water additive used to control microbes
Unregulated Contaminants								
Chromium-Total	N	2013*	1.975	No Range	UG/L	0	MRL 3.03	Naturally- occurring element; used in making steel and other alloys. Forms are used for chrome plating, dyes and pigments, leather tanning and wood preservation
Strontium	N	2014*	36.187	8.539 – 36.187	UG/L	0.3	MRL 0.3	Naturally-occurring element found in the earth's crust and at low concentrations in seawater, and in some surface and ground water; cobaltous chloride was formerly used in medicines and as a germicide
Vanadium	N	2013*	2.15	.209 – 2.15	UG/L		MRL 0.2	Naturally-occurring elemental metal; used as vanadium pent oxide which is a chemical intermediate and a catalyst

*Most recent sample. No sample required for 2018.

Test Results – PWS ID#: 0240255

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								
10. Barium	N	2018	.0071	No Range	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
13. Chromium	N	2018	2.6	No Range	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
16. Fluoride	N	2018	.45	No Range	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Disinfection By-Products								
81. HAA5	N	2018	19	No Range	ppb	0	60	By-product of drinking water disinfection
82. TTHM [Total trihalomethanes]	N	2018	45.3	No Range	ppb	0	80	By-product of drinking water chlorination
Chlorine	N	2018	1.4	.1 – 2.2	mg/l	0	MDRL = 4	Water additive used to control microbes



Frequently asked questions regarding city water service

Why did my bill increase dramatically this month?

You probably have a water leak. It could be a “silent toilet leak,” which, in some cases, has seen customers use an additional 30,000 gallons of water in a month, which can increase the bill by nearly \$200. (Remember, the use of water impacts the sewer and HCUA fees on your bill.)

To determine if you have a “silent toilet leak,” remove the lid off the back of the toilet and pour in food coloring. Do not use or flush the toilet for an hour. If you see colored water in your toilet bowl then you have a leak. Replace the flapper inside the tank.

What is the HCUA fee on my water bill?

This is a fee paid to the Harrison County Utility Authority and is assessed to water and sewer customers in the six municipalities in Harrison County. The fee, which is based on population, is used to repay a pre-Katrina loan to upgrade the sewer plants. These upgrades were necessary to meet new federal and state treatment and standards after Katrina,

Each city chose its method of repayment, and the amount each city owes is based on water usage. Biloxi customers owe \$4.7 million; the loan is scheduled to be paid off in 2033.

For several years, Biloxi, which has the lowest water and sewer rates on the Coast, absorbed the fee but once it created a deficit in water department operations, the fee was added to individual customer’s bills. In short: The

more water you use, the higher your sewer and HCUA fee will be.

Why does my water sometimes smell like rotten eggs?

If you do not use a tap in a spare restroom in your home or business for some time, the chemicals that help keep that water clean, namely chlorine, are allowed to settle. Hence, the smell. To avoid the smell,

run the water a minute or two. Same for hot water. Sediment that has settled in your hot water heater could be causing the smell.

Why do I sometimes see a fire hydrant open and spewing water onto the curb?

This could be for a number of reasons. It could be to help make sure chlorine is traveling adequately throughout the city water system. The fire department could be testing the hydrant to ensure that it is operating effectively.

Where can I pay my water bill, and what payment methods does the city accept?

You can pay your bill in person, by drive through, at the office, 195 Main St., or at one of the three drop boxes: at the Main Street office, on the north side of City Hall, or at the Woolmarket fire station.

Additionally, you can pay by phone or online via the city website. Payments can be made using cash, check or money order. The city also offers automated draft, where the payment would be drafted from your bank account each month on the due date.

Who do I call about garbage, trash or recycling not being picked up?

Call the number on side of your trash or recycling cart, 228-701-9086. If the response is not satisfactory, contact Craig Ross with the City of Biloxi at 228-435-6271 or cross@biloxi.ms.us.

Biloxi Water Well Listing

Health Dept Tag No	Facility Name	Street
240001-01	Maple Street	Maple St
240001-04	Hospital Water Well	Bayview Ave
240001-05	Greater Ave	Greater Ave
240001-06	Porter Ave	Irish Hill Dr
240001-10	Bradford St Well	Bradford St
240001-11	Debuys Water Well	Debuys Rd
240001-12	Kuhn St	Kuhn Street
240001-13	Iberville	Iberville Dr
240001-14	Park Circle Water Well	Park Dr
240001-15	Father Ryan	Father Ryan Ave
240001-16	Pine Street Well	Pine St
240001-17	Tullis	Beach Blvd
240001-18	Lakeview	Lakeview
240036-02	North Rivervue	N Riviere Vue Dr
240036-03	Oaklawn	Oaklawn Dr
240036-05	Hwy. 67 & Oaklawn	Hwy. 67 & Oaklawn Dr
240036-06	Superior	Woolmarket Rd
240084-01	Rustwood	Rustwood Dr
240084-04	South Hill	South Hill Dr
240084-05	N Biloxi #1	Popp’s Ferry Rd
240084-06	Vee Street	Vee Street
240084-07	Cedar Lake Subdivision	Penton Dr
240084-08	Biloxi Sports Complex	Wells Dr