

2021 Ocean Springs Drinking Water Quality Report

Revised 6-16-2022

Spanish (Espanol)

Este informe contiene informacion muy importante sobre la calidad de su agua beber. Traduscalo o hable con alguien que lo entienda bien.

Is my water safe?

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies. Last year, we conducted tests for over 80 contaminants. We only detected 44 of those contaminants, and found only 1 at a level higher than the EPA allows. As we informed you at the time, our water temporarily exceeded drinking water standards. (For more information see the section labeled Violations at the end of the report.)

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?

The drinking water supplied by the City of Ocean Springs is pumped from ground water aquifers

using five (5) separate wells within the City. The wells draw water from the Graham Ferry Formation. The City also purchases water from the Jackson County Utility Authority (JCUA).

Source water assessment and its availability

The Mississippi Department of Environmental Quality (MDEQ) has completed a ground water assessment and its availability to Jackson County. MDEQ has also completed a source water assessment for the City of Ocean Springs and its susceptibility to contamination. Copies of these reports are available for viewing at the Ocean Springs Public Library.

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 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 stormwater 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 stormwater 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 City of Ocean Springs Board of Aldermen meets on the first and third Tuesday of each month at 6:00 p.m. at City Hall, 1018 Porter Avenue. Any questions or comments regarding the water system can be addressed at the meeting. We encourage your participation.

Description of Water Treatment Process

Your water is treated by disinfection. Disinfection involves the addition of chlorine or other disinfectant to kill dangerous bacteria and microorganisms that may be in the water. Disinfection is considered to be one of the major public health advances of the 20th century.

Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

Source Water Protection Tips

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

Unregulated Contaminants

Unregulated Contaminants are those for which the Environmental Protection Agency (EPA) has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted.

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. City of Ocean Springs 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>.

Additional Information for Arsenic

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects

against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report.

Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. 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 vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source						
				Low	High									
Disinfectants & Disinfection By-Products														
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)														
Chlorine (as Cl ₂) (ppm)	4	4	.7	.1	1.9	2021	No	Water additive used to control microbes						
Haloacetic Acids (HAA5) (ppb)	NA	60	14.5	6	14.5	2021	No	By-product of drinking water chlorination						
TTHMs [Total Trihalomethanes] (ppb)	NA	80	22.4	NA	NA	2021	No	By-product of drinking water disinfection						
Inorganic Contaminants														
Arsenic (ppb)	0	10	1.5	NA	1.5	2021	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes (JCUA-W data)						

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Barium (ppm)	2	2	.108	.0021	.108	2021	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits (JCUA-W data)
Beryllium (ppb)	4	4	.5	.5	.5	2021	No	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries (JCUA-W data)
Chromium (ppb)	100	100	4.5	NA	4.5	2021	No	Discharge from steel and pulp mills; Erosion of natural deposits (JCUA-W data)
Fluoride (ppm)	4	4	.538	.359	.538	2021	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories (JCUA-W data)
Nitrate [measured as Nitrogen] (ppm)	10	10	.08	.08	.08	2021	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite [measured as Nitrogen] (ppm)	1	1	.02	.02	.02	2021	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (optional) (ppm)	NA		102	101	102	2021	No	Erosion of natural deposits; Leaching
Volatile Organic Contaminants								
Dichloromethane (ppb)	0	5	6.53	NA	6.53	2021	Yes	Discharge from pharmaceutical and chemical factories. (JCUA-W data)
Xylenes (ppm)	10	10	.00211	NA	.00211	2021	No	Discharge from petroleum factories; Discharge from chemical factories. (JCUA-W data)
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	.1	2021	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	

Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source
Lead - action level at consumer taps (ppb)	0	15	2	2021	1	No	Corrosion of household plumbing systems; Erosion of natural deposits

Violations and Exceedances

Dichloromethane

Some people who drink water containing dichloromethane in excess of the MCL over many years could have liver problems and may have an increased risk of getting cancer. On March 11, 2021 water department staff collected a sample from the water distribution system. The sample for Dichloromethane exceeded the maximum contaminant level (MCL) therefore was immediately retested. On March 20, 2021 the sample taken was recorded below the maximum contaminant level. (JCUA-W data) The original sample exceeding the MCL was collected from a well that is used as a backup source of water during emergency events. The water supply from this well did not pump into the water system and was not consumed. Upon notice that the collected sample exceeded the maximum contaminant level (MCL), the water department staff began flushing the water system and retesting to ensure safe water supply. As past and current samples to date remain below the MCL, it is believed the MCL violation occurred as a result of a poorly collected sample. (JCUA-W data)

Undetected Contaminants

The following contaminants were monitored for, but not detected, in your water.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Violation	Typical Source
1,1,1-Trichloroethane (ppb)	200	200	ND	No	Discharge from metal degreasing sites and other factories. (JCUA-W data)
1,1,2-Trichloroethane (ppb)	3	5	ND	No	Discharge from industrial chemical factories. (JCUA-W data)
1,1-Dichloroethylene (ppb)	7	7	ND	No	Discharge from industrial chemical factories. (JCUA-W data)
1,2,4-Trichlorobenzene (ppb)	70	70	ND	No	Discharge from textile-finishing factories (JCUA-W data)
1,2-Dichloroethane (ppb)	0	5	ND	No	Discharge from industrial chemical factories. (JCUA-W data)
1,2-Dichloropropane (ppb)	0	5	ND	No	Discharge from industrial chemical factories. (JCUA-W data)
Antimony (ppb)	6	6	ND	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition. (JCUA-W data)
Benzene (ppb)	0	5	ND	No	Discharge from factories; Leaching from gas storage tanks and landfills. (JCUA-W data)

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Violation	Typical Source
Cadmium (ppb)	5	5	ND	No	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries and paints (JCUA-W data)
Carbon Tetrachloride (ppb)	0	5	ND	No	Discharge from chemical plants and other industrial activities. (JCUA-W data)
Chlorobenzene (monochlorobenzene) (ppb)	100	100	ND	No	Discharge from chemical and agricultural chemical factories. (JCUA-W data)
Cyanide (ppb)	200	200	ND	No	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories
Ethylbenzene (ppb)	700	700	ND	No	Discharge from petroleum refineries. (JCUA-W data)
Mercury [Inorganic] (ppb)	2	2	ND	No	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland (JCUA-W data)
Selenium (ppb)	50	50	ND	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines (JCUA-W data)
Styrene (ppb)	100	100	ND	No	Discharge from rubber and plastic factories; Leaching from landfills. (JCUA-W data)
Tetrachloroethylene (ppb)	0	5	ND	No	Discharge from factories and dry cleaners. (JCUA-W data)
Thallium (ppb)	.5	2	ND	No	Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories (JCUA-W data)
Toluene (ppm)	1	1	ND	No	Discharge from petroleum factories. (JCUA-W data)
Trichloroethylene (ppb)	0	5	ND	No	Discharge from metal degreasing sites and other factories. (JCUA-W data)
Uranium (ug/L)	0	30	ND	No	Erosion of natural deposits (JCUA-W data)
Vinyl Chloride (ppb)	0	2	ND	No	Leaching from PVC piping; Discharge from plastics factories. (JCUA-W data)
cis-1,2-Dichloroethylene (ppb)	70	70	ND	No	Discharge from industrial chemical factories (JCUA-W data)
o-Dichlorobenzene (ppb)	600	600	ND	No	Discharge from industrial chemical factories. (JCUA-W data)
p-Dichlorobenzene (ppb)	75	75	ND	No	Discharge from industrial chemical factories. (JCUA-W data)
trans-1,2-Dichloroethylene (ppb)	100	100	ND	No	Discharge from industrial chemical factories. (JCUA-W data)

Additional Monitoring

As part of an on-going evaluation program the EPA has required us to monitor some additional contaminants/chemicals. Information collected through the monitoring of these contaminants/chemicals will help to ensure that future decisions on drinking water standards are based on sound science.

Name	Reported Level	Range	
		Low	High
HAA6Br (ug/L)	.54	.52	.54
HAA9 (ug/L)	2.1	1.9	2.1
manganese (ug/L)	5	1.5	5
HAA5	4.54	4.52	4.54

REVISED TOTAL COLIFORM RULE – LEVEL 1 ASSESSMENT

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exist through which contamination may enter the drinking water system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that we found during these assessments.

A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

During the past year we were required to conduct 1 Level 1 assessment(s). 1 Level 1 assessments were completed. In addition, we were required to take 1 corrective action and we completed 1 of these actions.

Unit Descriptions	
Term	Definition
ug/L	ug/L : Number of micrograms of substance in one liter of water
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
NA	NA: not applicable
ND	ND: Not detected

Unit Descriptions	
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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