

2021 CERTIFICATION

Consumer Confidence Report (CCR)

Keesler Air Force Base

PRINT Public Water System Name

MS0240049

List PWS ID #s for all Community Water Systems included in this CCR

CCR DISTRIBUTION (Check all boxes that apply)	
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<input checked="" type="checkbox"/> Distributed via E-mail as a URL (Provide direct URL): <u>https://www.keesler.af.mil/Portals/14/documents/Environmental/Keesler/20AFB%20Consumer%20Confidence%20Report%202021.pdf?ver=M31w9Jwa3wO-6RIN8ymOXg%3d%3d</u>	30 June 2022
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<input checked="" type="checkbox"/> Posted online at the following address (Provide direct URL): <u>https://www.keesler.af.mil/Portals/14/documents/Environmental/Keesler/20AFB%20Consumer%20Confidence%20Report%202021.pdf?ver=M31w9Jwa3wO-6RIN8ymOXg%3d%3d</u>	24 June 2022

CERTIFICATION

I hereby certify that the Consumer Confidence Report (CCR) has been prepared and distributed to its customers in accordance with the appropriate distribution method(s) based on population served. Furthermore, I certify that the information contained in the report is correct and consistent with the water quality monitoring data for sampling performed and fulfills all CCR requirements of the Code of Federal Regulations (CFR) Title 40, Part 141.151 – 155.

Alfred Watkins
Name

Base Water Official
Title

30 June 2022
Date

SUBMISSION OPTIONS (Select one method ONLY)

You must email or mail a copy of the CCR, Certification, and associated proof of delivery method(s) to the MSDH, Bureau of Public Water Supply.

Mail: (U.S. Postal Service)
MSDH, Bureau of Public Water Supply
P.O. Box 1700
Jackson, MS 39215

Email: water.reports@msdh.ms.gov

Consumer Confidence Report

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) for Keesler Air Force Base (KAFB) and the Biloxi Veterans Administration Medical Center (BVAMC) 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.

Where does my water come from?

Drinking water from KAFB/BVAMC, which will be referred to as Keesler throughout the document, is pumped from the Lower Graham Ferry Aquifer, a groundwater source. All water provided to Keesler is pumped from wells located on base property. The water from the wells is mixed, treated, stored, and distributed.

Is my water safe?

Yes, drinking water at Keesler is safe. Bioenvironmental Engineering follows all regulatory compliance regarding drinking water testing directed by the Environmental Protection Agency (EPA). The purpose of this assessment is to determine the quality of the raw water used for drinking water. At Keesler, the only treatment performed on source water is the addition of chlorine and fluoride. Because of the limited chemical treatment, the analytical results for Keesler's drinking water are representative of its source water.

Do I need to take special precautions?

Most people do not need to take special precautions. However, 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 healthcare providers. EPA/Centers for Disease Control and Prevention (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).

How is the water treated?

Your water is treated by chlorine 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.

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 EPA's 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. Those substances includes microbial contaminants, inorganic contaminants, and organic Chemical Contaminants. More information regarding these substances can be found at <https://www.epa.gov/ccl/types-drinking-water-contaminants>. 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?

Education is key to getting involved and understanding your drinking water. Additional information from the EPA is located/available at <http://www.epa.gov/safewater/>.

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 to save up to 500 gallons a month.
- Use a water-efficient shower head. 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.

Cross Connection Control Survey

The purpose of this survey is to determine whether a cross-connection may exist at your home or business. A cross connection is an unprotected or improper connection to a public water distribution system that may cause contamination or pollution to enter the system. We are responsible for enforcing cross-connection control regulations and ensuring that no contaminants can, under any flow conditions, enter the distribution system. If you have any of the devices listed below, please contact us so that we can discuss the issue and, if needed, survey your connection and assist in isolating if necessary.

- Boiler/Radiant heater (water heaters not included)
- Underground lawn sprinkler system
- Pool or hot tub (whirlpool tubs not included)
- Additional source(s) of water on the property
- Decorative pond
- Watering trough

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 to "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 the local water body.

Other Information

To comply with the “Regulation Governing Fluoridation of Community Water Supplies”, KEESLER AIR FORCE BASE is required to report certain results pertaining to fluoridation of the water system. The number of months in the previous calendar year in which average fluoride sample results were within the optimal range of 0.6 – 1.2 parts per million (ppm) was 12. The percentage of fluoride samples collected in the previous calendar year that was within the optimal range of 0.6 – 1.2 ppm was 94%.

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. Keesler is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When 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>.

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants 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 1 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	2.25	.51	2.25	2021	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	6.66	NA	NA	2021	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	13.4	NA	NA	2021	No	By-product of drinking water disinfection
Inorganic Contaminants								
Barium (ppm)	2	2	.0052	.0014	.0052	2021	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium (ppb)	100	100	1	NA	1	2021	No	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	4	4	1	.671	1	2021	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Sodium (optional) (ppm)	NA		84.5	47.1	84.5	2021	No	Erosion of natural deposits; Leaching
Volatile Organic Contaminants								
Ethylbenzene (ppb)	700	700	.63	NA	.63	2021	No	Discharge from petroleum refineries
Xylenes (ppm)	10	10	.00968	NA	.00968	2021	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	2020	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	
Lead - action level at consumer taps (ppb)	0	15	1	2020	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	

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)
NA	NA: Not applicable
ND	ND: Not detected
NR	NR: Monitoring not required but recommended

Important Drinking Water Definitions	
Term	Definition
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	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	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
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	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	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	Monitored Not Regulated
MPL	State Assigned Maximum Permissible Level

For more information please contact:

Contact Name: TSgt William Raetz
Address: 81 OMRS/SGXB Bioenvironmental Engineering 301 Fisher Street, Bldg. 420
Biloxi, MS 39534
Phone: (228) 376-0590



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 81ST TRAINING WING (AETC)**



29 June 2022

MEMORANDUM FOR KEESLER AIR FORCE BASE
BILOXI VETERANS ADMINISTRATION MEDICAL CENTER

FROM: 81 MDG/CC

SUBJECT: 2021 Keesler Water Quality Report

1. The annual Water Quality Report (or Consumer Confidence Report [CCR]) is required by the Safe Drinking Water Act (SDWA). The report is designed to provide details about where the base water comes from, what it contains, and how it compares to standards set by regulatory agencies. The United States Environmental Protection Agency (EPA) and the Mississippi Department of Health require a drinking water quality summary report be published within six months of the calendar year's end and made available to all drinking water system customers.

2. The water is considered safe to drink in accordance with all SDWA standards. The water supply met all EPA standards and there are currently no actions required of base water consumers. In addition to water quality data, the report also contains information on water conservation and available resources from the EPA.

3. If you would like to obtain a copy of the CCR, please call Bioenvironmental Engineering (BE) at 376-0590 or download the report using the link below:

<https://www.keesler.af.mil/Portals/14/documents/Environmental/Keesler%20AFB%20Consumer%20Confidence%20Report%202021.pdf?ver=M31w9Jwa3wO-6RfN8ymOXg%3d%3d>

4. For questions, please contact the BE Flight NCOIC, TSgt William Raetz, at 376-0590 or via email at usaf.keesler.81-mdg.mbx.bio@mail.mil.

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CHRISTOPHER J. ESTRIDGE, Col, USAF, MSC
MTF Director/Service Commander

Attachment:
2021 Consumer Confidence Report



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 81ST TRAINING WING (AETC)**

30 June 2022

MEMORANDUM FOR RECORD

FROM: 81 OMRS/SGXB
Bioenvironmental Engineering
301 Fisher Street, Bldg 0420
Keesler AFB, MS 39534

SUBJECT: Public Notification of 2021 Annual Water Quality Report (or Consumer Confidence Report [CCR]) for Keesler AFB

1. On 29 June 2021, SSgt Matthew Ketterling, SSgt Arina Chambers, SrA Jordan Taylor, and Amn Jordin Brown from the Bioenvironmental Engineering (BE) flight provided a physical copy (via drop-off or email) of the Keesler AFB 2021 Annual Water Quality Report Notice for posting in the following locations frequented by individuals who live on base:

- a. Base Housing Office
- b. Gulf Coast Veterans Health Care System (Biloxi VA Medical Center)
- c. Base Gyms:
 - 1) Blake Fitness Center Bldg. 1201
 - 2) Dragon Fitness Center Bldg. 4106
 - 3) Triangle Fitness Center Bldg. 7504
- d. Base Dining Facilities:
 - 1) Live Oak Dining Facility Bldg. 2001
 - 2) Azalea Dining Facility Bldg. 6960
 - 3) Magnolia Dining Facility Bldg. 7409
 - 4) Hungry Dragon Bldg. 468
- e. Base Dormitory Manager's Office and on bulletin boards in Biloxi Hall Bldg. 6223

2. Additionally, BE coordinated with 81 TRW Public Affairs to post the CY21 CCR online at <https://www.keesler.af.mil/Portals/14/documents/Environmental/Keesler%20AFB%20Consumer%20Confidence%20Report%202021.pdf?ver=M31w9Jwa3wO-6RfN8ymOXg%3d%3d>. Additionally, BE coordinated with the 81 TRW Public Affairs to have the 2021 Annual Water Quality Report Notice with the above link sent to the "Keesler All" email distribution list on 30 June 2021. Finally, BE coordinated with the Hunt Housing office to have the same email sent to all base housing residents on 30 June 2021.

3. For any questions, please contact the BE Office at 228-376-0590.

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MATTHEW A. KETTERLING, SSgt, USAF
NCOIC, Radiation Health and Safety