

# 2023 WATER QUALITY REPORT for Klines Resort

## Water Supply Serial Number: 40471, St. Joseph County



This report covers the drinking water quality for Klines Resort for the 2023 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2023. Included are details about where your water comes from, what it contains, and how it compares to United States Environmental Protection Agency (U.S. EPA) and state standards.

Your water comes from three (3) groundwater wells, each over 70 feet deep. The State performed an assessment of our source water to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a seven-tiered scale from “very-low” to “very high” based primarily on geologic sensitivity, well construction, water chemistry and contamination sources. The susceptibility of our source water is moderate. There are no significant sources of contamination in our water supply.

If you would like to know more about this report, please contact the person listed on page 3 of this report.

- **Contaminants and their presence in 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 **U.S. EPA’s Safe Drinking Water Hotline (800-426-4791)**.
- **Vulnerability of sub-populations:** 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 systems 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. U.S. EPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

- **Sources of Drinking Water:** The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from 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.

### Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, which 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 and residential uses.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.
- **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.

In order to ensure that tap water is safe to drink, the U.S. EPA prescribes regulations that limit the levels of certain contaminants in water provided by public water systems. Federal Food and Drug Administration regulations establish limits for contaminants in bottled water which provide the same protection for public health.

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**Water Quality Data:** The table below lists all the drinking water contaminants that we detected during the 2023 calendar year. The presence of these 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 January 1 through December 31, 2023. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. All the data is representative of the water quality, but some are more than one year old.

**Terms and abbreviations used below:**

- Maximum Contaminant Level Goal (MCLG): 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 Contaminant Level (MCL): 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.
- Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- 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 of microbial contaminants.
- Maximum Residual Disinfectant Level Goal (MRDLG): 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.
- N/A: Not applicable    ND: not detectable at testing limit    ppb: parts per billion or micrograms per liter  
ppm: parts per million or milligrams per liter    pCi/l: picocuries per liter (a measure of radiation).

Regulated Contaminant	Unit	MCL	MCLG	Our Water	Range of detections	Sample date	Violation Yes / No	Typical Source of Contaminant
Arsenic	ppb	10	0	<b>8</b>	N/A	6/14/2023	No	Erosion of natural deposits; runoff from orchards
Barium	ppm	2.0	2.0	<b>0.17</b>	N/A	3/14/2018	No	Erosion of natural deposits
Chlorine*	ppm	MRDL = 4.00	MRDLG = 4.00	<b>0.23</b>	0.12 to 0.4	monthly	No	Water additive used to control microbes
HAA5 Haloacetic Acids**	ppb	60	N/A	<b>1</b>	N/A	7/11/2022	No	Byproduct of drinking water disinfection
TTHMs Total Trihalomethanes**	ppb	80	N/A	<b>12.4</b>	N/A	7/11/2022	No	Byproduct of drinking water disinfection
Radiological Contaminants		MCL	MCLG	Our Water	Range	Sample date	Violation Yes / No	Typical Source of Contaminant
Alpha emitters	pCi/L	15	0	<b>0.27</b>	N/A	7/11/2022	No	Erosion of natural deposits
Radium 226	pCi/L	5	0	<b>0.34</b>	N/A	2/9/2015	No	Erosion of natural deposits
Radium 228	pCi/L	5	0	<b>0.07</b>	N/A	2/9/2015	No	Erosion of natural deposits
Inorganic Contaminant Subject to AL	Unit	Action Level	MCLG	Our Water	Range of Results	Sample date	# of Samples Above AL	Typical Source of Contaminant
Copper***	ppm	1.3	1.3	<b>0.3</b>	0.0 - 0.4	June 2023	0	Corrosion of household plumbing systems. Erosion of natural deposits.
Unregulated Contaminants****	Unit	MCL	MCLG	Our Water	Range of detections	Sample date	Violation	Typical Source of Contaminant
Sodium	ppm	N/A	N/A	<b>10</b>	N/A	6/14/2023	No	Erosion of natural deposits

\* Chlorine was calculated using the running annual average

\*\* The MCL is the sum of the concentration of the individual haloacetic acids or trihalomethanes

\*\*\* Ninety (90) percent of the samples collected were at or below the level reported for our water

\*\*\*\* Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps the U.S. EPA determine where certain contaminants occur and whether regulation of those contaminants is needed.

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## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

**Information about 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. Klines Resort 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 have a lead service line it is recommended that you run your water for at least 5 minutes to flush water from both your home plumbing and the lead service line. 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** at **1-800-426-4791** or at <http://water.epa.gov/safewater/lead>.

**Arsenic:** While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. The U.S. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. 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.

**Other Contaminants:** In 2023 we conducted tests for a number of other contaminants. All were either not detected or were below regulatory limits for drinking water.

**Per- and polyfluoroalkyl substances (PFAS):** In October of 2018, the Michigan PFAS Action Response Team tested the Klines Resort water supply for Per- and Polyfluoroalkyl Substances (PFAS). **The result of this test concluded that PFAS was not detected in the Resort water supply.** Follow up sampling in 2021, 2022, and 2023 confirmed these results of no PFAS detected (ND). Klines Resort will continue to monitor all contaminants as required by the Michigan Department of Environment, Great Lakes and Energy and include the required results in this annual report. For more information on PFAS, including possible health outcomes, please visit the Michigan PFAS Action Response Team webpage at: [www.michigan.gov/pfasresponse](http://www.michigan.gov/pfasresponse).

**Monitoring & Reporting to the Department of Environment, Great Lakes, and Energy (EGLE) Requirements:** The State of Michigan and the U.S. EPA require us to test our water on a regular basis to ensure its safety. We met all the monitoring and reporting requirements in 2023. **Klines Resort experienced no violations in 2023.**

We are committed to supplying you with reliable and healthy water, and we are pleased to provide you with this information to keep you fully informed about your water. We will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen. Copies of this report are available at the Klines Resort office or clubhouse, and will be mailed or emailed to you upon request.

For more information about your water, or the contents of this report, please contact:

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Telephone: 269-649-2514 Email: [klinesresort@hotmail.com](mailto:klinesresort@hotmail.com)

For more information about safe drinking water, visit the U.S. Environmental Protection Agency at:

<http://www.epa.gov/safewater/>

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## Cross-Connection Prevention

A cross-connection is a permanent or temporary piping arrangement which can allow your drinking water to be contaminated if a backflow condition occurs. "Backflow" is just what it sounds like: water flowing in the opposite direction from its normal flow. When this happens, contaminants may be "sucked" into the water system through cross connections.

**Over half of the nation's cross-connections involve unprotected garden hoses.** Without proper protection devices, a garden hose has a potential to poison our community's water supply.

Backflows due to cross-connections are serious plumbing problems. They can cause sickness and even death. However, they can be avoided by the use of proper protection devices. **Every spigot at your home should have a hose-bib vacuum breaker installed.** This is a simple, inexpensive device available at most hardware and plumbing stores, or from the resort office. Installation is as easy as attaching your hose.

Many of the newer frost-free type spigots have backflow protection built into the spigot. Look for a round plastic cap just behind the hand valve. If you do not see this on the spigot, you need to add a vacuum breaker.

There are a number of other plumbing connections that require backflow protection. These include:

- **Toilet tanks:** anti-siphon valve is required (filler tubing must be secured above water level).
- **Hot tubs, spas, and pools:** safe air gap or approved vacuum breaker required.
- **Water softeners:** air gap is required on discharge line.
- **Lawn sprinkler systems:** pressure vacuum breaker (tested by state certified inspector).
- **Tubs or sinks with hose threads on faucet:** safe air gap, vacuum breaker if hose is used.

The state requires Klines Resort to conduct routine inspections for cross connections. You can help by making sure that all your hose connections have vacuum breakers installed, and that your toilet valves are in good repair. If you operate an in-ground sprinkler system, the pressure vacuum breaker must be tested by a state certified inspector once every five years and a copy of the test results submitted to the resort office.

## Water Conservation

In 2023 we pumped over 8 million gallons of water. In June alone, we pumped over 1.7 million gallons! About half the water entered your drains into our wastewater treatment system. The rest was used on lawns, gardens, and exterior washing, or was lost through drips and leaks.

**Please do your part to use water wisely and avoid unnecessary rent increases.**

*Here are a few suggestions:*

### IN YOUR HOME:

- **Identify toilet leaks** by placing a drop of food coloring in the toilet tank. If any color shows up in the bowl after 10 minutes, you have a leak. (Be sure to flush immediately after the experiment to avoid staining the tank.)
- **Examine faucet gaskets** and pipe fittings for any water on the outside of the pipe to check for surface leaks.
- **Install water saving** toilets, shower heads, and faucets. Use "energy star" rated appliances.

### IN YOUR YARD:

- **PLEASE!!! Turn off automatic sprinklers after it has rained or when rain is forecast.**
- **Water only when your lawn needs it.** A good soaking a couple times a week is plenty. Keeping lawns wet promotes surface tree roots and encourages harmful molds and fungus.
- **Avoid watering lawns during midday heat.** Most of the water will be lost to evaporation!
- **Aim sprinklers** to avoid wasting water on roads, sidewalks, etc.
- **Use a timer** to avoid letting water run too long.

### IN EMERGENCIES:

- **In a power outage**, turn off hoses and sprinklers; limit water use to bare necessities.
- In case of a **water break in your home**, turn off water at the crock (or contact us to assist you).
- In case of a water main break, a fire emergency or during system flushing a large volume of water will be used. This may cause **rusty water** in the lines. Stop laundry immediately and limit water use until the problem is corrected. Then run a cold water tap until water runs clear.