Mt. Orab Water Supply

Consumer Confidence Report for 2023

What is a Consumer Confidence report?

In 1996, Congress amended the Safe Drinking Water Act. It added a provision requiring that all community water systems deliver to their customers a brief annual water quality report. Consumer Confidence Reports (CCR's) summarize information that the water system already collects to comply with regulations. Every community water system that has at least 15 service connections serving year round residents must prepare and distribute a report. These systems typically include cities, towns, homeowners associations, and trailer parks. Each water system must deliver its annual report to consumers by July of the following year. Although the Village of Mt. Orab analyzes for many contaminants, only those contaminants that were detected are listed within the table. This report is based on data collected in the 2023 calendar-year unless otherwise noted. Not all contaminants are required to be analyzed each year. The table lists those contaminants detected most recently within the past five years. For additional information, please call the Mt. Orab Water Treatment Plant at 937-444-2657 or attend a Board of Public Affairs meeting. Meetings are held monthly on the first Monday at 9:00 a.m. in the Municipal Building located at 211 South High Street. Public participation and comments are encouraged.

THE SOURCE OF YOUR WATER:

The Village of Mt. Orab operates a surface water treatment plant located at 116 W. Main St. in Mt. Orab. There are two upground raw water reservoirs supplied with surface water from Sterling Run Creek. From there, the treatment plant purifies the water through conventional means utilizing a combination of coagulation, settling, and filtration. An additional stage of treatment was added in the fall of 2005 whereby the filtered water is further treated with Granular Activated Carbon for organic contaminant removal. Ohio EPA recently conducted a Source Water Assessment of the watershed associated with Mt. Orab's water intake on Sterling Run. Surface waters are by nature susceptible to contamination and certain land uses along their banks make them more so. The protection area around Sterling Run is classified as having a high susceptibility due largely in part to the agricultural fields in the watershed. High levels of pesticides and herbicides commonly applied to agricultural fields, are found seasonally in Sterling Run. The Village of Mt. Orab public water system frequently samples Sterling Run and avoids pumping water into the reservoirs when the quality lessens. The potential for water quality impacts can be further decreased by implementing measures to protect Sterling Run. More detailed information is provided in the Village of Mt. Orab's Drinking Water Source Assessment report which can be obtained by contacting Eric Stephan at 937-444-2657.

* ***Why are there contaminants in my water?***

In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health. 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 Safe Drinking Water Hotline at 800-426-4791.

* ***Is our water meeting other rules that govern our operation?***

The Ohio EPA requires us to test our water for various parameters on a regular basis to ensure its safety. The Village of Mt. Orab water supply had no reporting, monitoring, nor water quality violations in 2023.

* ***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/CDC 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).

* ***What are sources of contamination to drinking water?***

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. Contaminants that may be present in source water include: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; (B) 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; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (D) 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 storm water runoff, and septic systems; (E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

* ***A word 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. The Village of Mt. Orab water supply 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 at 800-426-4791 or at http://www.epa.gov/safewater/lead.

* ***Turbidity Values:***

Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the samples analyzed each month and shall not exceed 1 NTU at any time. As reported in the table, the Village of Mt. Orab's highest recorded turbidity result for 2023 was 0.418 NTU and lowest monthly percentage of samples meeting the turbidity limits was 97.50 %.

* ***TOC Values:***

The value reported under "Level Found" for Total Organic Carbon (TOC) is the lowest ratio between percent of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements.

Table of Detected Contaminants

Contaminant and Year	Violation Y/N	Level Found	Units	MCLG	MCL	Range	Possible source of contamination
Inorganic Contaminants							
Fluoride 2023	No No	1.29 (1.00)	ppm	4	4	0.22 - 1.29 (0.74 - 1.10)	Water additive which promotes strong teeth.
Barium 2023	No	0.0297 (0.0065)	ppm	2	2	NA	Discharge of drilling wastes; Discharge from metal refineries; Erosions of natural deposits.
Beryllium 2023	No	(0.1)	ppm	4	4	NA	Discharge from metal refineries and coal burning factories; Discharge from electrical, aerospace and defense industries.
Nitrate 2023	No No	1.53 (0.48)	ppm	10	10	0.18 - 1.53 (NA)	Runoff from fertilizer use; Leaching from septic tanks.
Microbiological Contaminants							
Turbidity - NTU Standard Met 2023	No No	0.418 97.50 %	NTU %	NA NA	TT TT	0.044 - 0.418 97.50 - 100.00	Soil runoff.
Total Organic Carbon (TOC)							
Total Organic Carbon 2023	No	1.43	Removal Ratio	NA	TT	1.30 - 2.25	Naturally present in the environment.
Residual Disinfectants							
Total Chlorine 2023	No	1.66	ppm	MRDLG = 4	MRDL = 4	1.25 - 1.85	Additive to control microbes.
Disinfection Byproducts							
Total Trihalomethanes 2023	No	60.1	ppb	NA	80	14.5 - 88.8	By-product of drinking water chlorination.
Haloacetic Acids 2023	No	45.2	ppb	NA	60	9.0 - 37.2	By-product of drinking water chlorination.
Radioactive Contaminants							
Alpha Emitters 2020	No	3.6	pCi/L	0	15	NA	Erosion of natural deposits.
Lead and Copper							
Contaminant	**Violation Y/N**	**Action Level**	**Individual Results Over the Action Level**		**90% of Test Levels Were Less Than:**		**Possible source of contamination**
Lead 2021	No	15 ppb	0 of 20 samples were found to have lead > AL		2.3 ppb		Corrosion of household plumbing systems.
Copper 2021	No	1.3 ppm	0 of 20 samples were found to have copper > AL		0.147 ppm		Corrosion of household plumbing systems.

The Village of Mt. Orab Water Supply has a current, unconditioned license to operate its water system.

Water is purchased occasionally from Brown County Rural Water Association. Their results in the above table are in parentheses.

Mt. Orab purchased 16.196 million gallons of water, over 101days from Brown County Rural Water in 2023.

Contaminant and Year	Violation Y/N	Level Found	Units	MCLG	MCL	Range	Possible source of contamination
Unregulated Contaminants							
Bromoform 2023	No	0.1	ppb	NA	NA	0.1 - 0.5	By-product of drinking water chlorination
Bromodichloro-methane 2023	No	13.3	ppb	NA	NA	6.2 - 21.6	By-product of drinking water chlorination.
Chloroform 2023	No	30.5	ppb	NA	NA	5.3 - 62.9	By-product of drinking water chlorination.
Dibromochloro-methane 2023	No	3.4	ppb	NA	NA	2.2 - 4.4	By-product of drinking water chlorination.

Unregulated contaminants are those for which U.S. EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of these contaminants in drinking water and whether future regulation is warranted. In 2024, the Mt. Orab Water Supply is participating in the fifth round of the Unregulated Contaminant Monitoring Rule (UCMR5). 1st quarter results in 2024 were all 'non detect'. For a copy of the results please call the Mt. Orab Water Supply at 937-444-2657.

Contaminant Monitoring Definitions:

- **Maximum Contaminant Level Goal (MCLG):** The level of 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 contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of 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.
- **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.
- **Parts per Million (ppm):** Units of measure for concentration of a contaminant. A part per million corresponds to 1 second in just over 11.5 days.
- **Parts per Billion (ppb):** Units of measure for concentration of a contaminant. A part per billion corresponds to 1 second in 31.7 years.
- **The "<" Symbol:** A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected. **The ">" Symbol:** A symbol which means greater than. **The "=" Symbol:** A symbol which means equal to.
- **The "NA" Symbol:** An abbreviation which means not applicable.
- **Action Level (A.L.):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **BDL:** Below Detectable Limit.
- **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.
- **Picocuries per liter (pCi/L):** A common measure of radioactivity.

Brown County Rural Water Association - Source Water Assessment

Brown County Rural Water Association pumps water from an aquifer located near the Ohio River, west of Ripley, to the treatment plant. The ground water is then treated for iron and manganese in addition to softening and stabilization. Ohio EPA recently completed a study of Brown County Rural Water Association's source of drinking water to determine its susceptibility. According to this study, The aquifer (water saturated zone) that supplies water to the treatment plant has a high susceptibility to contamination. This is due to the nature of the aquifer in which the drinking water wells are located, the presence of a relatively thin protective layer of clay overlying the aquifer, the shallow depth (less than forty feet below ground surface) of the aquifer, and the presence of significant potential contaminant sources in the protection area, including periodic serious flooding of the Ohio River. This susceptibility rating means that under currently existing conditions, the potential of the aquifer to become contaminated is relatively high. This potential can be minimized by implementing appropriate protective measures. More detailed information is available in BCRWA's Wellhead Protection Report and Susceptibility Analysis Report, which can be obtained for review by calling Brown County Rural Water at 937-375-4106.