

# Village of Blissfield Annual Water Quality Report for 2021



Water Supply Serial Number : MI0000750

## **A MESSAGE TO OUR CONSUMERS**

This report covers the drinking water quality for the Village of Blissfield for the 2021 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2021. Included are details about where your water comes from, what it contains, and how it compares to EPA and state standards. Blissfield's drinking water originates in the River Raisin. We are making efforts to protect our water source by implementing a source water intake protection plan with the state of Michigan.

**CONTAMINATION SOURCES** In addition to natural occurring minerals in the River Raisin, erosion of the river bank, agricultural runoff and animal or human activity along the shore can cause contaminations to be present in the river.

### **These include:**

**Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, livestock, and wildlife.

**Inorganic contaminants**, such as salt and metals, which can be natural or from storm runoff, wastewater discharge, oil and gas production and farming.

**Pesticide and Herbicide contaminants**, which may come from a variety of sources such as agriculture storm water runoff, urban storm water runoff, and residential uses.

**Organic chemicals**, including synthetics 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.

**Radioactive substances**, which can be naturally occurring or be the result of oil and gas production, or mining activities.

**Trihalomethanes:** Some people who drink water-containing Trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

**Nitrate:** Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six month of age. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask for advice from your health care provider regarding nitrate residuals in drinking water. Pregnant woman, nursing mothers, and infants less than six months old are advised to seek an alternative source of drinking water if nitrate levels exceed 10 ppm.

**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 Blissfield Water Treatment Plant 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 (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

<b>Estimated Number of Service Connections by Service line material</b> A service line includes any section of pipe from the water main to the building plumbing at the 1st shut-off valve inside the building, or 18 inches inside the building, whichever is shorter			
Unknown Materials		Contains neither Lead nor Galvanized Previously Connected to Lead	Total Service connections
Likely Contains Lead	Likely does not Contain Lead		
458	164	933	1,555

**Cryptosporidium** is a microbial pathogen found in surface water throughout the U.S. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immune-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immune-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

**WHO NEEDS TO TAKE SPECIAL PRECAUTIONS?** 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. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791. Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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 at risk from infections. These people should seek advice about drinking water from their health providers. EPA/CDC guidelines on appropriate means to diminish the risk of infection by *Cryptosporidium* and other microbial contaminants are also available from the EPA's Safe Drinking Water Hotline. (800-426-4791)

In order to ensure that tap water is safe, the EPA prescribes regulations, which limit the amount of certain contaminants in drinking water, provided by public water systems. The Blissfield Water Treatment Plant staff tests water samples from the river and throughout the treatment process repeatedly each day. These tests ensure that proper chemical levels are maintained and any contaminants that cannot be removed by treatment are at safe levels. If you would like more information about your water, please call the Blissfield Water Treatment Plant at 517-486-3350.

# Water quality data table 2021

**TERMS AND ABBREVIATIONS:**

**Maximum Contaminate Level Goal (MCLG):**

The level of contaminant in drinking water below which there is no known or expected health risk.

**Maximum Contaminate Level (MCL):** The highest level of contaminant allowed in drinking water, MCL's are set as close to the MCLG's as possible using the best available treatment technology.

**Maximum Residual Disinfectant Level Goal (MRDLG):** Means the level of disinfectant in drinking water below which there is no known or expected health risk.

**Maximum Residual Disinfectant Level (MRGD):** Is the highest level of disinfectant allowed in drinking water. Disinfectant is necessary for control of microbial contaminants.

**ppb** – parts per billion or microgram per liter

**ppm** – parts per million or milligram per liter

**NTU** – Nephelometric Turbidity Units

**pC/l** – Picocuries per liter

**ND** – not detected **N/A** – not applicable

**RAA** – Running Annual Average

**TT** – treatment technique (a required process intended to reduce the level of contaminant in drinking water)

**Action Level (AL):** The level of contaminant, which, if exceeded, triggers treatment or other requirements, which the water treatment system must follow.

Contaminate	MCL	MCLG	Blissfield Water	Range of Detection	Sample Date	Violation	Typical Source of Contaminate
<b>Microbial Contaminates</b>							
* Turbidity	TT	N/A	Single Highest Measurement 0.15 NTU	0.10 - 0.15 NTU	2021	No	Soil Runoff
Lowest month % of samples meeting turbidity limit 100% - Annual average 0.10 NTU							
Total Coliform	>5% Positive	0	ND	ND	2021	No	Naturally present
<b>Inorganic Contaminates</b>							
Nitrate	10 ppm	10 ppm	Single Highest Measurement 6.38 ppm	0.94-6.38 ppm	2021	No	Fertilizer runoff; septic tank leaching, or erosion of natural deposits
Fluoride	4 ppm	4 ppm	Single Highest Measurement 0.96 ppm	0.25-0.96 ppm	2021	No	Water additive- promotes strong teeth, erosion of natural deposits, Discharge from fertilizer and aluminum factories
** Sodium	N/A	N/A	Single Highest Measurement 120 ppm	82-120 ppm	2021	No	Naturally present in groundwater
Barium	2 ppm	2 ppm	Single Highest Measurement 0.04 ppm	0.04 ppm	Aug. 2018	No	Discharge from refineries or drilling & natural erosion
<b>Disinfectant Residuals and Disinfection By-Products – Monitoring in Distribution System</b>							
Total Trihalomethanes	80 ppb RAA	N/A	Highest Annual Average 33.0 ppb	27-60 ppb	2021	No	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	60 ppb RAA	N/A	Highest Annual Average 17.0 ppb	11-21 ppb	2021	No	By-product of drinking water disinfection.
Chlorine Disinfectant	4 ppm	4 ppm	Annual Average 0.75 ppm	0.12-1.12 ppm	2021	No	Disinfectant
<b>Organic Contaminates</b>							
<b>Lead and Copper Monitoring at Consumer's Tap</b>							
Lead	AL=15 ppb	0 ppb	90 <sup>th</sup> percentile 2 ppb Range ND – 3ppb	0 out 20 sites over AL	June, July 2021	No	Corrosion of household plumbing, lead service lines, erosion of natural deposits
Copper	AL=1.3 ppm	1.3 ppm	90 <sup>th</sup> percentile 0.3 ppm Range ND -0.3 ppm	0 out 20 sites over AL	June, July 2021	No	Corrosion of household plumbing, erosions of natural deposits
<b>Regulated Contaminant</b>		<b>Annual Average % Removal</b>					
Total Organic Carbon	Average % Removal 63.50 ppm	% Removal Required 26.25 ppm	Minimum % Removal 48.98 ppm	Maximum % Removal 77.05 ppm	2021 monthly	No	Naturally present
The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. TOC has no health effects. However, TOC provides a medium for the formation of disinfection byproducts.							

\* Turbidity must be less than or equal to 0.15 NTU in at least 95% of the measurements taken throughout the month. Turbidity must never exceed 1.0 NTU.

\*\* Sodium is an unregulated contaminate and there is no MCL associated with it. Unregulated contaminate monitoring helps EPA to determine whether there is a need to regulate that contaminate.

**Violation notice:**

On March 1, 2021 at 3:54 p.m. – 5:00 p.m. the Blissfield water treatment facility experienced a treatment failure that allowed partially treated water to mix with fully treated water. The treatment plant was shut down immediately upon the discovery of the failure. The staff instantly remedied the issue, however the EGLE officer was not notified until March 10, 2021, resulting in a violation notice for failure to provide immediate emergency notification. This is the episode that led to the boil advisory March 10 -17<sup>th</sup> 2021.

If you have questions regarding your drinking water, please call the Blissfield Water Treatment Plant at 517-486-3350

[This report will not be mailed. Copies of this report are available at Blissfield Village Office or \[www.blissfieldmichigan.gov\]\(http://www.blissfieldmichigan.gov\)](#)

**Blissfield Village Council**

Meets at 7:00 pm on the second and fourth Mondays each month.  
Blissfield Village Office, 130 South Lane  
517-486-4374

Please sign up for Lenawee Alerts at [www.LenaweeAlerts.com](http://www.LenaweeAlerts.com)

Watch for quarterly water plant tours – limited spots per tour, sign-ups are at the Blissfield Village Office