

Village of Middleville

100 E. MAIN ST.
MIDDLEVILLE, MI 49333
WSSN# 4360



Consumer Confidence Water Quality Report 2021

Middleville's Department of Public Works is pleased to present the Water Quality Report. This report is a snapshot of the quality of 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. Our goal is to provide you with a safe, dependable drinking water supply. Trained, state-certified personnel operate your water utility. It is our pleasure to provide you with a safe, abundant water supply.

General Information

Your water comes from four ground wells, two of which are located near the water storage tower on the west side of town. A third well is located off Irving Rd. near the Village limits. Production well #6 on Irving Road and production well #3 on the west side are built to a depth of 78 feet and utilize unconfined sand and gravel aquifers. Production well # 4 on the west side is built to a depth of 352 feet and utilizes the Marshall Sandstone aquifer. Well #5 is located to the west of Bryanwood Estates Development near the Thornapple River. This well is built to a depth of 197 feet.

For Your Information

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 health risks. More information about contaminants and potential health effects can be obtained by calling the EPA: Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as those 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 risks of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Contaminants and Sources

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 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, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- 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, the EPA prescribes regulations that 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 protections for public health.

Definitions: Water Terminology

- N/D: Non-Detects – laboratory analysis indicates the contaminant is not present
- ppm or mg/l: parts per million or milligrams per liter
 - mg/l: one part per million corresponds to a single penny in \$10,000
- ppb: parts per billion or micrograms per liter
 - ppb: one part per billion corresponds to a single penny in \$10,000,000
- pCi/l: picocuries per liter is a measure of the radioactivity in water
- A/L: Action Level – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow
- MCL: Maximum Contaminant Level – the maximum contaminant allowed - is 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.
- **MCLG: Maximum Contaminant Level Goal – the goal is the level of a contaminant in drinking water below which there are no known or expected risks to health. MCLGs allow for a margin of safety.**

Water Testing Data

This report includes all required MDEQ testing which have either MCLs or detects.

Inorganic Contaminant	Date(s) Sampled	MCL	MCLG	Our Water	Range of Detections	Violation
Nitrate	Jan-Dec 2021	>10 ppm	<10 ppm	4.04 ppm	0-12.97 ppm	No
Nitrite	Jan-Dec 2021	>1.0 ppm	<1.0 ppm	.034 ppm	0-.04 ppm	No
Chloride	Jan-Dec 2021	N/A	N/A	25.27 ppm	0-38.6 ppm	No
Fluoride	Jan-Dec 2021	4 ppm	4 ppm	.24 ppm	0-.49 ppm	No
Hardness	Jan-Dec 2021	N/A	N/A	252.67 ppm	216.81-370.89 ppm	No
Iron	Jan-Dec 2021	N/A	N/A	.007 ppm	0-.009 ppm	No
Sodium	Sept. 2021	N/A	N/A	0 ppm	0 ppm	No

	Date	AL	MCLG	Our water	# of sites above AL	Range of Results
Lead	Jul-Sept 2021	15 ppb	0	6 ppb	0	0-12ppb
Copper	Jul-Sept 2021	1.3 ppm	1.3 ppm	0.1 ppm	0	0-.141ppm
Lead	Jan-June 2020*	15 ppb	0	7 ppb	3	0-21ppb
Copper	Jan-June 2020*	1.3 ppm	1.3 ppm	.2 ppm	0	0-.2ppm
Lead	July-Dec 2020*	15 ppb	0	4 ppb	1	0-15ppb
Copper	July-Dec 2020*	1.3 ppm	1.3 ppm	0.1 ppm	0	0-.482ppm

* These are corrected figures from the 2020 Consumers Confidence Report

Radiological	Date	Test Result	Violation	MCLG	MCL
Gross Alpha	Feb. 2021	.98	No	0	15 pCi/l
Radium 226	Feb. 2021	.35	No	0	5 pCi/l
Radium 228	Feb. 2021	1.6	No	0	5 pCi/l

Radiological	Date	Test Result	Violation	MCLG	MCL
Gross Alpha	June 2021	.77	No	0	15 pCi/l
Radium 226	June 2021	.91	No	0	5 pCi/l
Radium 228	June 2021	.52	No	0	5 pCi/l

Radiological	Date	Test Result	Violation	MCLG	MCL
Radium 226	Nov. 2021	.230	No	0	5 pCi/l
Radium 228	Nov. 2021	0450	No	0	5 pCi/l

Contaminant	Date	MCL	Detected Range	Violation
Chlorodibromomethane		ppm	ppm	NO
Chloroform		ppm	ppm	NO
Total Trihalomethanes		ppm	ppm	NO
Bromodichloromethane		ppm	ppm	NO

Contaminant	MCL	Detected Range	Violation	Date of Violation
Total Coliforms	1 positive + 1 repeat positive in a month	Presence/absence	NO	

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems. Usually, coliforms are a sign that there could be a problem with the system's treatment or distribution system (pipes). Whenever we detect coliform bacteria in any sample, we do follow-up testing to see if other bacteria of greater concern, such as fecal coliform or *E. coli*, are present. **All samples taken were found to be negative for E. coli bacteria.**

Chlorine or Chloramines	2020											
	J	F	M	A	M	J	J	A	S	O	N	D
Bacteriological sample site # 1				.18	.18	.20	.19	.32	.19	.27	.38	.4
Bacteriological sample site # 2				.06	.22	.03	.48	.63	.13	.22	.40	.52
Bacteriological sample site # 3				.18	.26	.08	.08	.47	.14	.41	.50	.54
Bacteriological sample site # 4				.09	.45	.64	.92	.65	.38	.50	.64	1.05
Average of all measurements taken in the month	N/A for RAA in year covered by CCR			.13	.28	.24	.42	.52	.21	.35	.48	.63
RAA calculated quarterly of 12 monthly averages.						.22			.38			.49
Chlorine or Chloramines	2021											
Bacteriological sample site # 1	.62	.51	.67	.56	.5	.83	.5	.89	.37	.53	1.23	.82
Bacteriological sample site # 2	.36	.2	.63	.36	.48	.16	.15	.24	.31	.62	1.21	.86
Bacteriological sample site # 3	.71	.36	.54	.39	.56	.19	.23	.47	.52	.58	1.04	.47
Bacteriological sample site # 4	.66	.62	.9	.97	.99	.9	.75	.63	.69	.76	1.14	.85
Average of all measurements taken in the month	.59	.42	.69	.57	.63	.52	.41	.5575	.47	.62	1.16	.75
RAA calculated quarterly of 12 monthly averages.			.57			.57			.48			.84

Figures in this table represent the amount of total chlorine detected in our drinking water measured in parts per million (ppm).

Our water supply has 138 lead service lines and 517 service lines of unknown material out of a total of 1200 service lines.

Monitoring and Reporting to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Requirements: The State of Michigan and the USEPA require us to test our water on a regular basis to ensure its safety. We met all the monitoring and reporting requirements for 2021.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring Requirements Not Met for the Village of Middleville

The Village of Middleville is required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the monitoring period of July 1, 2021 to September 30, 2021, we did not complete all monitoring for radium-226 and radium-228 and therefore, cannot be sure of the quality of your drinking water during that time. The violation **does not** pose a threat to the quality of the supply's water.

What should I do? There is nothing you need to do at this time. This is not an emergency. You do not need to boil water or use an alternative source of water at this time. Even though this is not an emergency, as our customers, you have a right to know what happened and what we are doing to correct the situation.

The table below lists the contaminants we did not properly test for, how often we are supposed to sample for these contaminants, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date we will collect follow-up samples.

Contaminants	Required sampling frequency	Number of samples taken	Date samples should have been collected	Date samples will be collected by
Radium-226 and Radium-228	1 sample every quarter from TP006	0	07/01/2021 – 09/30/2021	12/31/2021

What happened? What is being done? We inadvertently missed collecting the radium-226 and radium-228 samples within this required monitoring period. We will collect the required follow-up sample no later than December 31, 2021. Our staff is making every effort to assure this does not happen again.

For more information, please contact Alec Belson, DPW Director at 269-795-2094.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by the Village of Middleville.

CERTIFICATION:

WSSN: 04360

I certify that this water supply has fully complied with the public notification regulations in the Michigan Safe Drinking Water Act, 1976 PA 399, as amended, and the administrative rules.

Signature:  Title: DPW Director Date Distributed: June 11, 2022

Additional Monitoring Information

Chlorine residuals: Chlorine is added to our drinking water as a disinfectant. Maximum residual disinfectant level (MRDL) of four ppm has been established by safe drinking water rules. This is the highest level allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for the control of microbial contaminants. Maximum residual detection level goal (MRDLG) is the established level of a drinking water disinfectant below which there is no known or expected risk to health. That level has been established at two ppm.

Sodium: Sodium has no MCL or MCLG. Sodium contamination in drinking water typically comes from the erosion of natural deposits.

Nitrates: Nitrates in drinking water at levels above 10 ppm is a health risk for infants less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods due to rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

Lead: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Infants and children who drink water containing lead could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Village of Middleville 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 drinking water, testing methods and steps you can take to minimize exposure are available from the Safe Drinking Water Hotline at 800-426-4791 or <http://www.epa.gov/drink/info/lead>.

The Michigan Department of Environmental Quality has completed a source water assessment for community water supplies. This study evaluates community water source wells for susceptibility to contamination. The evaluations are based on several categories which are well log and location, geologic sensitivity, well construction, water chemistry and isotope data, and isolation from sources of contamination. Scores of these categories are added for an overall well score. All well scores are totaled to arrive at a water system score, which is translated into a susceptibility determination. Middleville's susceptibility is rated as moderate. Results of the entire assessment report may be viewed at the Village Department of Public Works during the hours of 6:00 am to 2:30 pm, Monday through Friday.

We are committed to providing you safe, reliable, and healthy water. We are pleased to provide you with this information to keep you informed about your water. This report is updated and published annually. We will keep you informed of any problems that may occur throughout the year.

Customer questions or comments on drinking water issues are welcome and may be addressed at regularly scheduled Village Council meetings. Meetings are scheduled every second and fourth Tuesday of each month throughout the year. Meetings start promptly at 7:00 pm in the council chambers of the Village Hall located at 100 E. Main Street, Middleville, MI 49333.

This report will not be mailed directly to customers. A copy may be obtained at the Village offices between 9:00 am and 5:00 pm Monday through Friday. The report is also available on the Village web page at: www.villageofmiddleville.org

For more information about your water or the contents of this report, contact Alec Belson, Department of Public Works Director, at 100 E. Main St. Middleville, MI 49333 or call (269) 795-2094.