

VILLAGE OF VICKSBURG

2020 DRINKING WATER QUALITY REPORT



VILLAGE OF VICKSBURG
126 NORTH KALAMAZOO AVENUE
VICKSBURG, MI 49097
(269) 649-1919

To: Customers of the Village of Vicksburg Municipal Water System

The Village of Vicksburg is pleased to provide this annual report on the quality of drinking water supplied to our customers for the year 2020. We are privileged to share this information about your water. Included are facts related to the source of your water, what it contains and how it compares to Environmental Protection Agency (EPA) and Michigan Department of Environmental Quality (MDEQ) standards.

Our goal is to provide you with safe drinking water. Toward that end, we are committed to the following:

Trained staff – The Village of Vicksburg has one fully trained and State of Michigan certified technician working for you. Additionally, there are two working to achieve full certification. Certification requires experience, hours of instruction and passing a written examination. In addition, continuing education is a pre-requisite for keeping the license, which must be periodically renewed.

System Maintenance – Our staff provides the leadership necessary to operate and maintain our system at the highest level. We constantly seek ways to improve efficiency in order to provide safe drinking water at the lowest possible cost.

Compliance – We conduct frequent water quality tests throughout the water system and report the test results to the Michigan Department of Environmental Quality. The standards are high and the regulations are strict. If a test shows that a sample fails to meet the standards, we must notify our customers immediately.

We appreciate the confidence and trust our customers place in us to provide them with safe, quality drinking water. Our Consumer Confidence Report is available on our website under “Protect Your Water”. Additional copies of this report are available at the Vicksburg Municipal Building, 126 North Kalamazoo Ave. If you have questions about your water system, please feel free to call the Water Operations Desk at (269) 649-1919 or Operator Doug Prudden at (269)998-2904

Respectfully submitted,

**Jim Myers, Assistant Director
Department of Public Works**

YOUR WATER SYSTEM

For over 90 years, the Village of Vicksburg has provided drinking water to its residents. In 1994, the Village completed a 1.4 million dollar water system improvement project, which included a 300,000 gallon elevated storage tank. In the spring of 2007, under the supervision and inspection of Dixon Engineering, the Village's water storage tank underwent exterior painting and repairs.

Tank inspection is generally recommended by the Department of Environmental Quality to take place every five years. The Village had a tank inspection in 2019

and was found to be in clean and in good condition.

The Village has installed a Supervisory Control and Data Acquisition System (SCADA) for the well and tank controls, replacing the old controls. The SCADA controls allow the water operator to better monitor well and tank operations.

On average, the Village pumps approximately 200,000 to 300,000 gallons of water per day. During summer months this figure could reach upwards of 500,000 gallons per day. The Village has an active well maintenance program by having an annual well pump efficiency testing program conducted by a licensed well driller. A new well pump of 500 gallons per minute (gpm) was installed in 2011 and records indicate the new firm pumping capacity is about 1.3 times the historic maximum day water use; complying with administrative rules where a water supplier firm pumping capacity must meet maximum day water use.

The Department of Environmental Quality approved Wellhead Protection Grant Assistance for the period October 1, 2011 through September 30, 2012 (FY 2012) for the purpose of preparing a Wellhead Protection Program (WHPP). Grants have also been received for the five fiscal years following our initial application. (FY 2013, FY 2014, FY 2015, FY 2016, FY 2017, FY 2018) The Village wellhead protection program and public awareness initiatives help to protect the groundwater source that the serves the Village wells. Further information on the program is available on our website at www.vicksburgmi.org.

The Village continues to work with a consulting firm to prepare valve and hydrant maps to accurately locate valves and hydrants as part of a Distribution System Maintenance Program. Hydrants are flushed and inspected yearly. The Village is working on hydrant maintenance records of hydrant conditions to eliminate any possibility of a hydrant not working when needed for firefighting. The Village will also be doing a Capital Improvement Program to determine what infrastructure will need to be addressed.

SOURCES OF 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.

Your water comes from two groundwater wells and the well water supply is not treated.

The State performed an assessment of our source water in 2003 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, water chemistry, and contaminant sources. The susceptibility of our two wells is “Moderately High”. The Village is actively working on the Wellhead Protection Program to protect our water supply from potential contaminations, to ensure safe drinking water for future generations.

A copy of the assessment may be obtained by visiting the Village of Vicksburg Offices at 126 N Kalamazoo Avenue, Vicksburg, MI 49097.

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 risks can be obtained by calling the EPA’s Safe Drinking Water Hotline at 1-800-426-4791 or their website at <http://water.epa.gov/drink/>.

Several examples of 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.
- * **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 storm water runoff, and septic systems.

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 may have increased vulnerability to any contaminants; therefore 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 (1-800-426-4791) or their website at <http://water.epa.gov/drink/>.

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

The Village of Vicksburg ensures that our drinking water quality is maintained throughout the water system. Routine bacteriological-testing, as required by the MDEQ, is performed at various locations around the Village – and even in private locations – to make sure that the water retains high quality standards achieved at the wells.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct the problems that were found during these assessments.

During the past year we were required to conduct one level 1 assessment (2018). Protocols established by the Michigan Department of Environmental Quality were followed. Samples were taken from five testing locations throughout the village. Once negative results were achieved for three consecutive days of testing, the boil advisory was lifted. It was determined bacteria may have entered the system during the installation of a new water main. For future projects, more supervision over contractors will be given to confirm disinfection policies are followed.

The Village of Vicksburg 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 1-800-426-4791 or at <http://www.epa.gov/drink/info/lead>. **The Village of Vicksburg has a total of 1,403 Service connections. 646 of those connections are Galvanized previously connected Lead, and the other 757 service connections are neither Lead or Galvanized previously connected to Lead. The Village will be replacing the 647 Galvanized service connections at a rate of about 5% a year until they are all removed.**

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. Vicksburg 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 or at <http://www.epa.gov/safewater/lead>.

We feel that it is unnecessary for our customers to go to the extra expense of buying bottled water in order to have “safe” drinking water. The water delivered from the Village of Vicksburg’s municipal well system meets all federal and state drinking water regulations. Federal law requires that the highest level of any contaminant detected in our water be reported to you. Those results are shown in the following charts.

We encourage you to call or write if you have any questions or you would like to express concerns regarding your water quality or water supply system.

Public comments regarding the Vicksburg Water System and quality of water may also be directed to the Vicksburg Village Council. Meetings of the Village Council are generally held the 1st and 3rd Mondays of each month at 7:00 PM (summer months usually only the 1st Monday) and are held at the Vicksburg District Library, 215 S. Michigan Avenue, Vicksburg.

Further comments may be directed to: **Village of Vicksburg, 126 North Kalamazoo Ave, Vicksburg, MI 49097, (269) 649-1919**

The table below lists all the drinking water contaminants that were detected. The detected concentration can be either below or above the state/federal safe drinking water standard (also known as the Maximum Contamination Level). If the detected concentration is above the safe drinking water standard a violation has occurred and a “YES” will be indicated in the violation column.

EPA requires that water suppliers report the most recent sampling results of the previous year each year by July 1. The state requires 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. Some of the data, though representative of the water quality, is more than one year old. In 2015, the Village tested for volatile organic compounds, SOC pesticides, SOC herbicides, SOC carbamates, Gross Alpha (Radiological) Radium 226 & Radium 228, all tests were negative for contaminants.

Terms and abbreviations used below:

Level 1 Assessment: A study of the water supply to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

ppm: parts per million or milligrams per liter

ppb: parts per billion or micrograms per liter

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

N/A: Not Applicable

ND: Not detectable at testing limit

| Per- and polyfluoroalkyl substances (PFAS) | | | | | | | |
|--|------------------|---------------|-------------------------|------------------|--------------|----------------------------|--|
| Regulated Contaminant | MCL, TT, or MRDL | MCLG or MRDLG | Level Detected | Range | Year Sampled | Violation Yes/No | Typical Source of Contaminant |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) (ppt) | 370 | N/A | ND | ND | 2020 | No | Discharge and waste from industrial facilities utilizing the Gen X chemical process |
| Perfluorobutane sulfonic acid (PFBS) (ppt) | 420 | N/A | ND | ND | 2020 | No | Discharge and waste from industrial facilities; stain-resistant treatments |
| Perfluorohexane sulfonic acid (PFHxS) (ppt) | 51 | N/A | ND | ND | 2020 | No | Firefighting foam; discharge and waste from industrial facilities |
| Perfluorohexanoic acid (PFHxA) (ppt) | 400,000 | N/A | ND | ND | 2020 | No | Firefighting foam; discharge and waste from industrial facilities |
| Perfluorononanoic acid (PFNA) (ppt) | 6 | N/A | ND | ND | 2020 | No | Discharge and waste from industrial facilities; breakdown of precursor compounds |
| Perfluorooctane sulfonic acid (PFOS) (ppt) | 16 | N/A | ND | ND | 2020 | No | Firefighting foam; discharge from electroplating facilities; discharge and waste from industrial facilities |
| Perfluorooctanoic acid (PFOA) (ppt) | 8 | N/A | ND | ND | 2020 | No | Discharge and waste from industrial facilities; stain-resistant treatments |
| Inorganic Contaminant Subject to Action Levels (AL) | Action Level | MCLG | Your Water ¹ | Range of Results | Year Sampled | Number of Samples Above AL | Typical Source of Contaminant |
| Lead (ppb) | 15 | 0 | 2 ppb | 0-2 | 2019 | No | Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits |
| Copper (ppm) | 1.3 | 1.3 | 0.3 | 00-0.3 | 2019 | No | Corrosion of household plumbing systems; Erosion of natural deposits |

¹ Ninety (90) percent of the samples collected were at or below the level reported for our water.

| Regulated Contaminant | MCL, TT, or MRDL | MCLG or MRDLG | Level Detected | Range | Year Sampled | Violation Yes/No | Typical Source of Contaminant |
|--|-------------------------------|---------------|----------------|--------|--------------|------------------|---|
| Arsenic (ppb) | 10 | 0 | NA | NA | 2020 | | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes |
| Barium (ppm) | 2 | 2 | .07 | 0-0.07 | 2009 | No | Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits |
| Nitrate (ppm) Well 5 Well 6 | 10 | 10 | .8 .5 | 0-.8 | 2020 | No | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Fluoride (ppm) | 4 | 4 | .11 | 0-.11 | 2020 | No | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Sodium ² (ppm) | N/A | N/A | 9.8 | 0-9.8 | 2020 | No | Erosion of natural deposits |
| Alpha emitters (pCi/L) | 15 | 0 | NA | NA | NA | No | Erosion of natural deposits |
| Combined radium (pCi/L) | 5 | 0 | Na | NA | NA | No | Erosion of natural deposits |
| Total Coliform (total number or % of positive samples/month) | TT | N/A | N/A | N/A | 2020 | No | Naturally present in the environment |
| E. coli in the distribution system (positive samples) | See E. coli note ³ | 0 | 0 | N/A | 2020 | No | Human and animal fecal waste |
| Fecal Indicator – E. coli at the source (positive samples) | TT | N/A | 0 | N/A | 2020 | NO | Human and animal fecal waste |

² Sodium is not a regulated contaminant.

³ *E. coli* MCL violation occurs if: (1) routine and repeat samples are total coliform-positive and either is *E. coli*-positive, or (2) the supply fails to take all required repeat samples following *E. coli*-positive routine sample, or (3) the supply fails to analyze total coliform-positive repeat sample for *E. coli*.