

Annual Drinking Water Quality Report for 2022
City of Ishpeming WSSN: 03440
May 2nd, 2023

We're pleased to present to you this year's Annual Quality Water Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. The City of Ishpeming purchases drinking water from the Negaunee/Ishpeming Water Authority (NIWA). NIWA uses ground water production wells in the North Carp River Aquifer and the Cooper Lake Road Aquifer as the primary sources of our drinking water. NIWA has six wells in the North Carp River Aquifer and three in the Cooper Lake Road Aquifer. Negaunee/Ishpeming Water Authority (NIWA) treats the water through chemical clarification and filtration for the removal of manganese and iron, and adjusts the pH for lead and copper corrosion control. The water treatment plant is operated by certified treatment plant operators employed by NIWA.

NIWA has a source water protection plan, which provides detailed information on groundwater flow and potential sources of contamination. This plan is available for review at the water treatment plant.

I'm pleased to report that our drinking water is safe and meets federal and state requirements.

If you have any questions about this report or concerning your water utility, please contact **Brad Wootke, Water Operator in Charge at (906) 485-1091 ext. 235**. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of NIWA's regularly scheduled meetings. **They are held on the third Wednesday of the month at 4:00 PM at the water treatment plant's conference room located at 1800 North Road, Ishpeming, Michigan.**

The water treatment plant and city staff routinely monitor for regulated and unregulated contaminants in your drinking water according to Federal and State laws. Unregulated contaminant sampling for NIWA was completed in 2009. (Unregulated contaminant sampling is only required if the Volatile Organic Compounds (VOC) or Synthetic Organic Compounds (SOC) are present in a sample.) A large facility requirement, mandated by the EPA and the Safe Drinking Water Act. The water quality data gathered through the unregulated sampling requirement is used in the development of future drinking water quality standards. Copies of the unregulated sampling test results are available for review at the water plant.

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 can dissolve naturally-occurring minerals and, in some cases, radioactive materials, and can pick up substances resulting from the presence of animals or from human activity. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

The following table shows results for our regulated monitoring for the period of January 1st to December 31st, 2022.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Not applicable (N/A)

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/L) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (ug/L) - 1 ug/L = .001 mg/L
One part per billion corresponds to one minute in 2,000 years or one penny in \$10,000,000

Parts per trillion (ppt) or Nanogram per Liter (ng/L) - 1 ng/L = .000 001 mg/L
One part per trillion corresponds to one minute in 2,000,000 years or one penny in \$10,000,000,000

Parts per quadrillion (ppq) or Picogram per Liter (pg/L) - 1 pg/L = .000 000 001 mg/L
One part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000

Picocurie per liter (pCi/L)- is a measure of radioactivity in the water.

Action Level - the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

Maximum Contaminant Level - The "Maximum Allowed" (MCL) 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.

Maximum Contaminant Level Goal - The "Goal" (MCLG) is 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.

Treatment Technique (TT)- A required process intended to reduce the level of a contaminant in drinking water.

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 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. ·

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.

| Regulated Contaminant | MCL, TT, or MRDL | MCLG or MRDLG | Level Detected | Range | Year Sampled | Violation Yes/No | Typical Source of Contaminant |
|--|---------------------------------|---------------|----------------|-----------|--------------|------------------|---|
| Nitrate (ppm) | 10 | 10 | .5 | N/A | 2022 | No | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Fluoride (ppm) | 4 | 4 | .62 | N/A | 2022 | No | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Sodium ^[1] (ppm) | N/A | N/A | 69 | N/A | 2022 | N/A | Erosion of natural deposits |
| TTHM Total Trihalomethanes (ppb) | 80 | N/A | 59.25 | 57.3-61.2 | 2022 | No | Byproduct of drinking water disinfection |
| HAA5 Haloacetic Acids (ppb) | 60 | N/A | 21.35 | 20.3-22.4 | 2022 | No | Byproduct of drinking water disinfection |
| Chlorine ^[2] (ppm) | 4 | 4 | 0.35 | 0.3-0.42 | 2022 | No | Water additive used to control microbes |
| Total Coliform | TT | N/A | N/A | N/A | 2022 | No | Naturally present in the environment |
| E. coli in the distribution system (positive samples) | See E. coli note ^[3] | 0 | N/A | N/A | 2022 | No | Human and animal fecal waste |
| Fecal Indicator – E. coli at the source (positive samples) | TT | N/A | N/A | N/A | 2022 | No | Human and animal fecal waste |

^[1] Sodium is not a regulated contaminant.

^[2] The chlorine “Level Detected” was calculated using a running annual average.

^[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*.

| Inorganic Contaminant Subject to ALs | AL | MCLG | Your Water ¹ | Range of Results | Year Sampled | Number of Samples Above AL | Typical Source of Contaminant |
|--------------------------------------|-----|------|-------------------------|------------------|--------------|----------------------------|--|
| Lead (ppb) | 15 | 0 | 1 | 0-2 | 2022 | 0 | Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits |
| Copper (ppm) | 1.3 | 1.3 | 0.5 | 0.1-0.7 | 2022 | 0 | Corrosion of household plumbing systems; Erosion of natural deposits |

Our water supply has 0 known lead service lines and 2,047 unknown likely does not contain lead out of 2,950 service lines.

*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.

*Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

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

We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water is SAFE at these levels.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or manmade. These substances can be microbes, inorganic or organic chemicals and radioactive substances. 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 (800-426-4791).

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 discharge, 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 by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water 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, EPA prescribes regulations which limit the amount of certain contaminants in the water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for human health.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply that meets Federally Mandated Safe Drinking Water Act requirements, we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as a rate structure adjustment.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as person with cancer undergoing chemotherapy, persons who have undergone organ transplants, people 8 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 (1-800-426-4791).

| Contaminants | Susceptible Vulnerable Subpopulation | Level of Concern |
|------------------------|--|---|
| Fecal Coliform/E. Coli | Infants, young children, and people with severely compromised immune systems | Confirmed presence (any confirmed detect) |
| Copper | People with Wilson's Disease | 130 ug/L (ppb) |
| Fluoride | Children | 4 mg/L (ppm) |
| *Lead | Infants and children | 15 ug/L (ppb) |
| Nitrate | Infants below the age of 6 months. | 10 mg/L (ppm) |
| Nitrite | Infants below the age of 6 months | 1 mg/L (ppm) |
| Barium | People with high blood pressure | 2 mg/L (ppm) |

* 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 City of Ishpeming 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>.

The City of Ishpeming with its staff of certified water distribution operators work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

Individual copies of this report will NOT be mailed. Individual copies may be obtained from Ishpeming City Hall at 100 E. Division Street, Ishpeming, Michigan; 906-485-1091. The Annual Drinking Water Report is also available online at <https://ishpemingcity.org/departments/public-works/>