



# PERE MARQUETTE

## CHARTER TOWNSHIP

1699 SOUTH PERE MARQUETTE HWY. • LUDINGTON, MICHIGAN 49431  
(231) 845-1277 • FAX (231) 843-3330

## 2022 Annual Water Quality Report

For our Purchased Water System (The portion of our township supplied with water purchased from The City of Ludington)

We are pleased to present this year's Annual Water Quality Report to our valued customers. This report, as required by the United States Environmental Protection Agency (EPA) under the Safe Drinking Water Act re-authorization, is designed to inform the consumer about where your water comes from, what it contains and how it compares to standards set forth by regulatory agencies. Our constant goal is to provide our customers with a safe and dependable drinking water supply. We continually strive to improve the water treatment process and distribution system. We appreciate the confidence our customers have placed in us and continually value your trust.

### WHERE DOES YOUR WATER COME FROM?

Water is drawn through (two) intake structures in Lake Michigan to the water treatment plant. The primary intake is a below bottom infiltration bed about an acre in size and is connected to a 36-inch diameter pipe. The secondary intake is a wood crib style that is attached to a 24-inch diameter pipe and is used to supplement the buried intake capacity.

### HOW IS YOUR WATER TREATED?

The Ludington Water Treatment Plant is a conventional treatment plant that uses coagulation, flocculation, sedimentation, and filtration for its treatment. Chlorine bleach is added for disinfection and is carefully monitored throughout the distribution piping system to ensure the microbial safety of your water. In addition, a low dose of fluoride is also added to your drinking water for the prevention of tooth decay.

### DRINKING WATER QUALITY RESULTS

The City of Ludington's licensed water treatment operators routinely monitor for contaminants in your drinking water according to Federal and State laws. Results are gathered through their certified lab, as well as other independent laboratories including the State of Michigan Department of Environment, Great Lakes, & Energy (EGLE) lab. It is important to mention that not all contaminants are tested for every year because the concentrations of these contaminants are not expected to vary significantly from year to year as determined by our State regulatory agency (EGLE). Therefore, tests may be taken quarterly, annually, or every third year depending on the type of test and prior test results. **We are proud of the fact that your drinking water met or surpassed all Federal and State water quality and safety standards for 2022.** However, should there ever be an immediate health threat due to a water contaminant problem or violation we would promptly notify you by the best means possible. We perform numerous tests each day to monitor our source water, various water treatment stages and of course, the tap. The table inside this report represents the substances that were detected in Pere Marquette Township's water for the monitoring period of **January 1<sup>st</sup> to December 31<sup>st</sup>, 2022.**

**It should be noted that Pere Marquette Charter Township buys only a portion of its water from the City of Ludington.**

## HEALTH AND SAFETY INFORMATION

Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA'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 discharges, oil & gas production, mining, or farming; **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, septic systems, and urban or agricultural runoff (i.e., pesticides and herbicides); or **Radioactive contaminants**, which can be naturally occurring or the result of oil and gas production and mining activities.

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

**Information for Vulnerable Populations:** Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons 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 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).

More information on potential health effects of specific contaminants can be obtained by contacting the EPA's Safe Drinking Water Hotline at 1 (800) 426-4791 or their website at:

<http://www.epa.gov/safewater/dwhealth.html>.

**Lead and Drinking Water:** 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. Pere Marquette Charter Township 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 at 1 (800) 426-4791 or at <http://www.epa.gov/safewater/lead>.

### **Distribution system material inventory**

Pere Marquette Twp is currently working with residents to identify and replace lead service lines per the EGLE Revised Lead and Copper Rule. We have 55 residential service lines in this distribution system and 11 of those have been identified as unknown material. Township staff are continuously working to determine the material of these 11 unknown service lines.



## 2022 Water Quality Results Table

### Regulated Monitoring in the Distribution System

Contaminate	Units	Range Detected	Level Detected	MCL	MCLG	Violations	Year Sampled	Possible Sources of Contaminate
Fluoride	ppm	0.63 - 0.74	0.69	4	4	No	2022	Water additive which promotes strong teeth
Free Chlorine Residual [4]	ppm	0.23 - 1.87	1.06	MRDL=4	MRDLG=4	No	2022	Used to disinfect drinking water
Haloacetic Acids [5]	ppb	8	8.0	60	0	No	2022	Formed when chlorine is added to water with naturally occurring organic material
Total Trihalomethane [4]	ppb	16.2	16.2	80	0	No	2022	
Contaminate	Units	Range Detected	90th Percentile	AL	MCLG	Violations	Year Sampled	Possible Sources of Contaminate
Copper [5]	ppm	ND	ND	1.3	1.3	No	2020	Corrosion of household plumbing system
Lead [5]	ppb	ND	ND	15.0	0	No	2020	Corrosion of household plumbing system

**Footnotes [x]:**

1. The level detected shown for Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5) is the running annual average calculated annually.
2. The level detected shown for Free Chlorine Residual was calculated using a running annual average.
3. Collected from homes that met the EGLE Tier 1 Site criteria (single family residence with lead service line).

Microbial Contaminants	MCL, TT, or MRDL	MCGL or MRDLG	Violation Yes / No	Typical Sources Of Contaminants
Total Coliform Bacteria	TT	N/A	No	Naturally present in the environment
Fecal Coliform and E. coli	TT	N/A	No	Human and animal fecal waste

contaminants occur and whether it needs to regulate those contaminants.

**Terminology:**

**Maximum Contaminant Level Goal (MCLG)** - The MCLG is the level of a contaminant in drinking water below, which there is no known or expected health

**Maximum Contaminant Level (MCL)** - The MCL is the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's

**Parts per million (ppm) and parts per billion (ppb)** - One ppm can be equated to a single penny in \$10,000. One ppb is a single penny in \$10,000,000.

**Maximum Residual Disinfection Level (MRDL)** -The highest level of disinfectant allowed in drinking water.

to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

**(NA)** - Not Applicable

**Running Annual Average (RAA)**- the arithmetic average of analytical results for samples taken during the previous four calendar quarters.

## PUBLIC PARTICIPATION

Interested citizens are welcome to attend the Pere Marquette Township Board meetings to hear more about current projects involving the Township's water system. Meetings are held the second and fourth Tuesday of each month at 4:00pm and 6:00pm respectively, at the Pere Marquette Twp Hall, 1699 South Pere Marquette Highway.

### **For More Information, Please Contact:**

**John D. Healy**  
Asst. Supt. of Utilities & Public Works  
231-845-1277

## QUESTIONS? COMMENTS?

The Township's utility department is on call around the clock to provide quality water to residents and businesses. If you have any questions or comments, or would like to receive more specific information

about Township's water system, please feel free to call John D. Healy, Assistant Superintendent of Utilities & Public Works, at 231-845-1277 from 8:00 am to 5:00 pm Monday - Friday.



# PERE MARQUETTE

CHARTER TOWNSHIP

1699 SOUTH PERE MARQUETTE HWY. • LUDINGTON, MICHIGAN 49431  
(231) 845-1277 • FAX (231) 843-3330

## 2022 Annual Water Quality Report

For our Ground Water System (The portion of our township supplied with water produced by Pere Marquette Charter Township)

We are pleased to present this year's Annual Water Quality Report to our valued customers. This report, as required by the United States Environmental Protection Agency (EPA) under the Safe Drinking Water Act re-authorization, is designed to inform the consumer about where your water comes from, what it contains and how it compares to standards set forth by regulatory agencies. Our constant goal is to provide our customers with a safe and dependable drinking water supply. We continually strive to improve the water treatment process and distribution system. We appreciate the confidence our customers have placed in us and continually value your trust.

### WHERE DOES YOUR WATER COME FROM?

In 2006, Pere Marquette Charter Township began construction of our Business, Technology, and Industrial (BTI) Park on First St., Between PM Highway and Meyers Rd. As part of that project, a municipal well field and a 500,000-gallon elevated storage tank were constructed. The well field and storage enable the Township to provide increased water volumes to our customers. The water for this system is supplied by three (3) 12-inch diameter wells, each one being over 220 feet deep. The water travels through several miles of piping to serve businesses and residences in the general area bounded by the Lincoln River on the North, Meyers Rd. on the East, Conrad Rd. on the South, and Washington Ave on the West. The Michigan Department of Environmental Quality (MDEQ) performed an assessment of our source water in 2006 to determine the susceptibility or the relative potential of contamination. The susceptibility rating is reported using a seven-tiered scale ranging from "very low" to "very high" based primarily on geologic sensitivity, water chemistry, and contaminant sources. Our source water susceptibility was rated as LOW.

In September of 2008, Pere Marquette Charter Township began operation of our new Ground Water (municipal well) system.

### DRINKING WATER QUALITY RESULTS

Pere Marquette Charter Township's licensed water treatment operators routinely monitor for contaminants in your drinking water according to Federal and State laws. Results are gathered through certified labs, such as The City of Ludington's WTP lab and the State of Michigan Department of Environment, Great Lakes, & Energy (EGLE) lab. It is important to mention that not all contaminants are tested for every year because the concentrations of these contaminants are not expected to vary significantly from year to year as determined by our State regulatory agency, (EGLE). Therefore, tests may be taken quarterly, annually, or every third year depending on the type of test and prior test results. **We are proud of the fact that your drinking water met or surpassed all Federal and State water quality and safety standards for 2022.** However, should there ever be an immediate health threat due to a water contaminant problem or violation we would promptly notify you by the best means possible. We perform tests each day to monitor our source water. The table inside this report represents the substances that were detected in Pere Marquette Township's Ground Water System for the monitoring period of **January 1<sup>st</sup> to December 31<sup>st</sup>, 2022.**

**It should be noted that Pere Marquette Charter Township buys a portion of its water from the City of Ludington.**



## HEALTH AND SAFETY INFORMATION

Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA'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 discharges, oil & gas production, mining, or farming; *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, septic systems, and urban or agricultural runoff (i.e., pesticides and herbicides); or *Radioactive contaminants*, which can be naturally occurring or the result of oil and gas production and mining activities.

To ensure that tap water is safe, the EPA prescribes regulations that limit the levels of certain contaminants in water provided by public water systems. Federal Food and Drug Administration regulations establish limits for contaminants in bottled water, which provide the same protection for public health.

**Information for Vulnerable Populations:** Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons 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 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).

More information on potential health effects of specific contaminants can be obtained by contacting the EPA's Safe Drinking Water Hotline at 1 (800) 426-4791 or their website at <http://www.epa.gov/safewater/dwhealth.html>.

**Lead and Drinking Water:** 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. Pere Marquette Charter Township 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 at 1 (800) 426-4791 or at <http://www.epa.gov/safewater/lead>.

### **Distribution system material inventory**

Pere Marquette Twp is in compliance with EGLE's Revised Lead and Copper Rule. We have 175 service lines in this distribution system and none of those lines have been identified as either containing lead or are of an "unknown" material.

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Listed in the table below are the contaminants/substances that were detected in Pere Marquette Township's Water System that is supplied by the Township's Well Field for the year 2022.

**ALL DETECTED CONTAMINANTS/SUBSTANCES ARE BELOW ALLOWED LEVELS.**

**Not listed are the several other contaminants tested for, but not detected in the Township's Water.**

## 2022 WATER QUALITY RESULTS

### Regulated Monitoring at the Well House.

Substance	Units	Our Water	MCL	MCLG	Violations	Year Sampled	Possible Sources of Contaminant
Alpha Emitters	pCi/L	0.64	15	0	No	2018	Erosion of Natural deposits.
Combined Radium	pCi/L	0.76	5	0	No	2018	Erosion of Natural deposits.
Fluoride	ppm	0.86	4	4	No	2022	Erosion of natural deposits. Discharge from fertilizer and aluminum factories.
Arsenic	ppm	0.005	0.010	2	No	2020	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Barium	ppm	0.020	2	2	No	2020	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits.

### Regulated Monitoring in the Distribution System

Substance	Units	Range Detected	Our Water	MCL	MCLG	Violations	Year Sampled	Possible Sources of Contaminant
(HAA5) Haloacetic Acids [5]	ppb	7-16	12.3	60	N/A	No	2022	Byproduct of drinking water disinfection
Free Chlorine Residual	ppm	0.22 - 1.14	RAA = 0.52	MRDL=4	MRDLG=4	No	2022	Water additive used to control microbes
(TTHM) Total Trihalomethanes [3]	ppb	36.7-59.0	48.7	80	N/A	No	2022	Byproduct of drinking water disinfection
PFOS	ppt	ND	ND	16	NA	No	2022	Man made chemicals used in manufacturing and firefighting.
PFOA	ppt	ND	ND	8	NA	No	2022	Man made chemicals used in manufacturing and firefighting.

### Regulated Monitoring at Customer's Tap (compliance is determined using the 90th percentile, where nine out of ten samples must be below the Action Level).

Substance	Range Detected	90th Percentile	Date Sampled	Action Level (AL)	MCLG	# of Samples Above(AL)	Year Sampled	Possible Sources of Contaminant
Lead (ppb)	0 - 1.0	1	9/9/21	15.0	0	0	2021	Lead service lines, corrosion of household plumbing including fittings and fixtures; erosion of natural deposits.
Copper (ppm)	0 - 0.1	0.1	9/9/21	1.3	1.3	0	2021	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

### Unregulated Monitoring \*

Substance	Units	Range Detected	Our Water	MCL	MCLG	Violations	Year Sampled	Possible Sources of Contaminant
Sodium	ppm	NA	60	NA	NA	No	2022	Erosion of natural deposits.
Microbial Contaminants		MCL, TT, or MRDL			MCGL or MRDLG	Violation Yes / No		Typical Sources Of Contaminants
Total Coliform Bacteria		TT			N/A	No		Naturally present in the environment
Fecal Coliform and E. coli		TT			N/A	No		Human and animal fecal waste

\* Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

#### Terminology:

**Maximum Contaminant Level Goal (MCLG)** - The MCLG is the level of a contaminant in drinking water below, which there is no known or expected health risk. MCLGs provide a margin of safety.

**Maximum Contaminant Level (MCL)** - The MCL is the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible, using the best available treatment technology. MCL's are set at very stringent levels by the State and Federal government. To understand the possible health effects, a person would have to drink about two liters (quarts) of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the associated health effect.

**Parts per million (ppm) and parts per billion (ppb)** - One ppm can be equated to a single penny in \$10,000. One ppb is a single penny in \$10,000,000.

**Maximum Residual Disinfection Level (MRDL)** -The highest level of disinfectant allowed in drinking water.

**Maximum Residual Disinfection Level Goal (MRDLG)**- The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

**(NA)** - Not Applicable

**Running Annual Average (RAA)**-the arithmetic average of analytical results for samples taken during the previous four calendar quarters.

Monitoring and reporting to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) is a requirement. The State of Michigan and the USEPA require us to sample test our water on a regular basis to ensure it's safety. In November 2022 we failed to sample and report both Trihalomethanes (TTHMs), Dalapon, and Haloacetic acids (HAA5) - both considered disinfection byproducts (DBPs). Sampling and testing for DBPs returned to normal in February 2023, when the next quarterly sample results were required. The August 2022 results and the February 2023 test results were well below the MCL, or non-detect for these contaminants. The notice of our failure to sample and test for these contaminants in November 2022 is attached at the end of this water quality report.

## PUBLIC PARTICIPATION

Interested citizens are welcome to attend the Pere Marquette Township Board meetings to hear more about current projects involving the Township's water system. Meetings are held the second and fourth Tuesday of each month at 4:00pm and 6:00pm respectively, at the Pere Marquette Twp Hall, 1699 South Pere Marquette Highway.

### **For More Information, Please Contact:**

**John D. Healy**

Asst. Supt. of Utilities & Public Works  
231-845-1277

## QUESTIONS? COMMENTS?

The Township's utility department is on call around the clock to provide quality water to residents and businesses. If you have any questions or comments, or would like to receive more specific information about Township's water system, please feel free to call John D. Healy, Assistant Superintendent of Utilities & Public Works, at 231-845-1277 from 8:00 am to 5:00 pm Monday - Friday.



## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

### *Monitoring Requirements Not Met for*

### ***Pere Marquette Township - Wells***

We are 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 November 1, 2022, to November 30, 2022, we did not monitor for trihalomethanes (TTHM) or haloacetic acids (HAA5) and, therefore, cannot be sure of the quality of your drinking water during that time.

**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 contaminant samples 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	When samples should have been collected	Date additional samples will be collected
TTHM	1 sample every quarter	0	Nov 1, 2022 – Nov 30, 2022	Feb 1, 2023 – Feb 28, 2023
HAA5	1 sample every quarter	0	Nov 1, 2022 – Nov 30, 2022	Feb 1, 2023 – Feb 28, 2023

**What happened? What is being done?** We did not take the required samples in November 2022. We have collected the samples for February 2023. We are making every effort to assure this does not happen again.

For more information, please contact Brian Ross, 616-764-1340, or 3960 Lucerne Drive, Grand Rapids, MI 49546.

*Please share this information with all people who drink this water, especially those who may not have received this notice directly. 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 Pere Marquette Township – Wells.

CERTIFICATION:

WSSN: 05268

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: \_\_\_\_\_

**OPERATOR-IN-CHARGE**

Date Distributed: **06-27-2023**