

Annual Drinking Water Quality Report

MOSINEE WATER UTILITY

We are pleased to present to you this year's Annual Drinking Water Quality 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.

Water is supplied to Mosinee's customers from two wellfields. Wells #1, #2 and #6 are located near the Wisconsin River on Maple Ridge Road. Wells #1 and #2 are 60 feet deep and can produce approximately 350 gallons per minute per well. Well #6 is approximately 65 feet deep and can produce about 480 gallons per minute. Wells #3, #4 and #5 are located near Rangeline Road and Mosinee Avenue. Wells #4 and #5 are 45 feet deep and can each produce 200 gallons per minute. Well #3 is 65 feet deep and can produce 350 gallons per minute. The water treatment plant, constructed in 1995, removes iron, manganese and organic compounds from the water before it is pumped into the distribution system. The water from Wells 3, 4 and 5 is pumped through the treatment plant, which is located at the Mosinee Ave. site. Ph is adjusted at all locations to make the water non-corrosive and chlorine is added to kill bacteria. A river crossing connects the east and west side water systems. This connection gives the Utility the ability to pump water in either direction in the event of some type of mechanical problem or to satisfy an increased water demand. A summary of the source water assessment for MOSINEE WATERWORKS is available at: http://prodoasext.dnr.wi.gov/inter1/pk_swap_web.p_swap_summary?i_ro_seq_no=147780.

We are pleased to report that our drinking water is safe and meets federal and state requirements!

The Mosinee Water Utility routinely monitors for constituents in your drinking water according to Federal and State laws. The following table shows the results of our monitoring for the period of **January 1st to December 31st, 2010**. 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.

In the water quality test results tables 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:

Definition of Terms

| Term | Definition |
|-------------|--|
| AL | Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. |
| MCL | Maximum Contaminant Level: 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 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. |
| MFL | million fibers per liter |

| | |
|-----------|--|
| mrem/year | millirems per year (a measure of radiation absorbed by the body) |
| NTU | Nephelometric Turbidity Units |
| pCi/l | picocuries per liter (a measure of radioactivity) |
| ppm | parts per million, or milligrams per liter (mg/l) |
| ppb | parts per billion, or micrograms per liter (ug/l) |
| ppt | parts per trillion, or nanograms per liter |
| ppq | parts per quadrillion, or picograms per liter |
| TCR | Total Coliform Rule |
| TT | Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water. |

Number of Contaminants Required to be Tested

This table displays the number of contaminants that were required to be tested in the last five years. The CCR may contain up to five years worth of water quality results. If a water system tests annually, or more frequently, the results from the most recent year are shown on the CCR. If testing is done less frequently, the results shown on the CCR are from the past five years.

| Contaminant Group | # of Contaminants |
|--|-------------------|
| Disinfection Byproducts | 3 |
| Inorganic Contaminants | 16 |
| Microbiological Contaminants | 2 |
| Radioactive Contaminants | 3 |
| Synthetic Organic Contaminants including Pesticides and Herbicides | 25 |
| Unregulated Contaminants | 20 |
| Volatile Organic Contaminants | 20 |

Disinfection Byproducts

| Contaminant (units) | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2010) | Violation | Typical Source of Contaminant |
|---------------------|-----|------|-------------|------------|--------------------------------|-----------|---|
| BROMATE (ppb) | 10 | 10 | 0 | nd- 2 | | NO | |
| HAA5 (ppb) | 60 | 60 | 6 | 5- 6 | 07/16/2008 | NO | |
| TTHM (ppb) | 80 | 0 | 22.9 | 12.7- 22.9 | 07/16/2008 | NO | By-product of drinking water chlorination |

Inorganic Contaminants

| Contaminant (units) | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2010) | Violation | Typical Source of Contaminant |
|----------------------|-----|------|-------------|------------|--------------------------------|-----------|--|
| ANTIMONY TOTAL (ppb) | 6 | 6 | .1 | nd- .1 | 05/13/2008 | NO | Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder |
| ARSENIC (ppb) | 10 | n/a | 1 | nd- 1 | 05/13/2008 | NO | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes |
| BARIUM (ppm) | 2 | 2 | .051 | .007- .051 | 05/13/2008 | NO | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |

| | | | | | | | |
|-----------------------|--------|-----|--------|---|------------|----|--|
| BERYLLIUM TOTAL (ppb) | 4 | 4 | .02 | .01- .02 | 05/13/2008 | NO | Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries |
| CHROMIUM (ppb) | 100 | 100 | 1 | 1- 1 | 05/13/2008 | NO | Discharge from steel and pulp mills; Erosion of natural deposits |
| COPPER (ppm) | AL=1.3 | 1.3 | 1.6900 | 8 of 40 results were above the action level. | 12/10/2009 | * | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| FLUORIDE (ppm) | 4 | 4 | .6 | .1- .6 | 05/13/2008 | NO | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| LEAD (ppb) | AL=15 | 0 | 43.90 | 11 of 40 results were above the action level. | 12/09/2009 | * | Corrosion of household plumbing systems; Erosion of natural deposits |
| NICKEL (ppb) | 100 | | 1.5000 | 1.0000-1.5000 | 05/13/2008 | NO | Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products. |
| NITRATE (N03-N) (ppm) | 10 | 10 | 2.20 | .64- 2.20 | | NO | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| SELENIUM (ppb) | 50 | 50 | 1 | nd- 1 | 05/13/2008 | NO | Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines |
| SODIUM (ppm) | n/a | n/a | 93.00 | 20.00-93.00 | 05/13/2008 | NO | n/a |

* Systems exceeding a lead and/or copper action level must take actions to reduce lead and/or copper in the drinking water. The lead and copper values represent the 90th percentile of all compliance samples collected. If you want information on the NUMBER of sites or the actions taken to reduce these levels, please contact your water supply operator.

Radioactive Contaminants

| Contaminant (units) | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2010) | Violation | Typical Source of Contaminant |
|----------------------------------|-----|------|-------------|----------|--------------------------------|-----------|-------------------------------|
| GROSS ALPHA, EXCL. R & U (pCi/l) | 15 | 0 | 2.2 | .2- 2.2 | 09/09/2009 | NO | Erosion of natural deposits |
| GROSS ALPHA, INCL. R & U (n/a) | n/a | n/a | 2.2 | 0.2- 2.2 | 09/09/2009 | NO | Erosion of natural deposits |
| RADIUM, (226 + 228) (pCi/l) | 5 | 0 | 3.3 | .7- 3.3 | 09/09/2009 | NO | Erosion of natural deposits |

Unregulated Contaminants

| Contaminant (units) | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2010) | Violation | Typical Source of Contaminant |
|----------------------------|-----|------|-------------|-----------|--------------------------------|-----------|-------------------------------|
| BROMODICHLOROMETHANE (ppb) | n/a | n/a | 7.50 | 4.00-7.50 | 07/16/2008 | NO | n/a |
| BROMOFORM (ppb) | n/a | n/a | 1.30 | .96- 1.30 | 07/16/2008 | NO | n/a |
| CHLOROFORM (ppb) | n/a | n/a | 8.60 | 3.30-8.60 | 07/16/2008 | NO | n/a |
| DIBROMOCHLOROMETHANE (ppb) | n/a | n/a | 5.50 | 4.30-5.50 | 07/16/2008 | NO | n/a |

Volatile Organic Contaminants

| Contaminant (units) | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2010) | Violation | Typical Source of Contaminant |
|---------------------|-----|------|-------------|--------|--------------------------------|-----------|--|
| STYRENE (ppb) | 100 | 100 | .4 | nd- .4 | | NO | Discharge from rubber and plastic factories; Leaching from landfills |

Additional Health Information

Infants and young children are typically more vulnerable to **lead** in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Environmental Protection Agency's safe drinking water hotline (800-426-4791).

“All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or are man made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials.” More information about contaminants and potential health effects can be obtained by calling the **Environmental Protection Agency’s Safe Drinking Water Hotline at 1-800-426-4791.**

In addition to the water quality test results listed above numerous additional tests are done on a daily basis to evaluate water characteristics and ensure that the water treatment plant is functioning properly. Some of the additional water tests include:

PH – Average result is 8.2. An ideal range is 7 to 8.5. pH measures the acidity of the water. Low values may mean the water is corrosive.

Iron – Average result is .14 mg/l. Iron in the drinking water is a naturally occurring element and is removed by the water treatment plant. Iron is not a health concern but can cause odor and taste problems along with staining of laundry or fixtures.

Manganese – Average result is .02 mg/l. Just like iron, manganese is a naturally occurring element and is removed by the water treatment plant.

Bacteri tests – Five samples per month are taken from the distribution system and tested by the Marathon County Health Dept. In addition, water samples are collected quarterly from each well and tested.

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 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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 we sometimes need to make improvements that will benefit all of our customers. These improvements may include water main replacement, water service line replacement or fire hydrant replacements. Rate structure adjustments are sometimes necessary to pay for these improvements. Thank you for understanding.

If you have any questions about this report, lead testing or your water utility, please contact **Kevin Breit, Director of Public Works at 693-3840 or e-mail to: publicworks@mosinee.wi.us**. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Public Works or City Council meetings. They are held on the 2nd and 4th Monday of each month. The meeting times for Public Works will vary but the City Council meetings usually start at 7:30 p.m. All meetings are held at the Mosinee City Hall located at 225 Main Street.

We at the Mosinee Water & Sewer Utility work around the clock to provide top quality water to every tap. Hundreds of water quality tests are performed annually to ensure that you receive quality drinking water. We also 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.