

GOGEBIC RANGE WATER AUTHORITY
Bessemer Township - Ironwood Township
Indianhead Ski Resort – Wakefield Township
Blackjack Ski Resort – Bessemer Township
ANNUAL DRINKING WATER QUALITY REPORT
2017

We are pleased to present you with this year's Annual Quality Water Report. This report is designed to inform you about the quality water 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 distribution and transmission systems in our township.

If you have any questions about this report or concerning your water utility, please contact Jean Verbos, GRWA Administrator and water system operator, at N10338 Mill Street, Ramsay MI 49959 or call 906-667-0465 during regular office hours. We want our customers to be informed about their water utility. If you want to learn more please attend any of our regularly scheduled GRWA meetings. They are held at the Bessemer Township hall in Ramsay, MI on the second Thursday of each month at 6:30 p.m.

The GRWA purchases water from the City of Wakefield for sale and distribution to the Blackjack Ski Resort area in Bessemer Township, the Indianhead Mountain Ski Resort in Wakefield Township, and to Bessemer Township and Ironwood Township. The Gogebic Range Water Authority (GRWA) was formed in 1979 to develop water transmission between the City of Wakefield, Wakefield Township, Blackjack Ski Resort and Bessemer Township. The City of Wakefield supplies drinking water to the GRWA. The ground water source for this water supply comes from two wells located on the North side of Sunday Lake at the Chicago Mine. Well #1 is 410 feet deep and Well #2 is 412 feet deep. Both wells are drilled into a spring fed reservoir in the old Chicago Mine workings. The water from each well is pumped into the Chicago Mine pump house and is disinfected with chlorine. After being approved by a vote of the people of Wakefield, fluoride is added to the water.

Is my water safe?

Last year your tap water met all U.S. Environmental Protection Agency (EPA) and Michigan State safe drinking water health standards. The GRWA and the City of Wakefield routinely monitors for contaminants in your drinking water according to Federal and State laws. This report shows the monitoring results for the period of January 1 to December 1, 2017. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that 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 Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791.

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.

1. Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
2. 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..
3. Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
4. 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.
5. Radioactive Contaminates, 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 water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.
6. **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. GRWA 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 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 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

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/Centers for Disease Control (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.

WATER QUALITY DATA

The following table lists all of the drinking water contaminants that were detected during sampling by the of your water source during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health threat. Unless otherwise noted, the data presented in this table is from testing done the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, may be more than one year old.

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

NON-DETECTS (ND) – laboratory analysis indicates that the contaminant was not present.

PARTS PER MILLION (ppm) – 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 – one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

ACTION LEVEL (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a system must follow.

TREATMENT TECHNIQUE (TT) – a treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

MAXIMUM CONTAMINANT LEVEL (MCL) – 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 (MCLG) – the “Goal” (MCLG) is a level of a contaminant in drinking water below which there is no known or expected risk to health.

MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL) – means the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial contaminants

MAXIMUM RESIDUAL DISINFECTANT GOAL (MRDLG): Means 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 use of disinfectant to control microbial contaminants.

PICOCURIES PER LITER (pCi L): a measure of radioactivity

| Regulated Contaminant | MCLG | MCL | Level Detected | Date Sampled | Violation | Typical Source of Contaminant |
|--|---------------------|---------------------------|--------------------------|--------------|----------------------------|---|
| Arsenic (ppb) | 0 | 5 | ND | 10/17 | NO | Erosion of natural deposits; Runoff from orchards, glass and electronics production waste |
| Fluoride (ppm) | 4 | 4 | .096 | Daily | NO | Erosion of natural deposits |
| Selenium (ppm) | 0 | 10 | 6.2 | 10/17 | NO | Discharge of drilling wastes, metal refineries, erosion of natural deposits |
| Nitrate (ppm) | | 10 | 0.10 | 8/16 | NO | |
| TTHM – Total Trihalomethanes (ppb) | N/A | 80 | | | | Byproduct of drinking water disinfection |
| Bessemer Township | | | 1.4 | 8/17 | NO | |
| Bessemer Twp - Blackjack | | | 2.12 | 8/17 | NO | |
| Ironwood Township | | | 9.3 | 12/17 | NO | |
| Wakefield Twp. - Indianhead | | | 2.45 | 8/17 | NO | |
| HAA5 – Haloacetic Acids (ppb) | N/A | 60 | | | NO | Byproduct of drinking water disinfection |
| Bessemer Township | | | ND | 8/17 | | |
| Bessemer Twp.-Blackjack | | | ND | 8/17 | | |
| Ironwood Township | | | ND | 1/17 | | |
| Wakefield Twp. - Indianhead | | | ND | 8/17 | | |
| Chlorine | MRDL 4 | MRDLG 4 | 0.52 | Daily | NO | Water additive used to control microbes |
| Radioactive Contaminant | MCL | MCLG | | | | |
| 816 Alpha emitter (pCi/L) | 15 | 0 | 0 | 9/15 | NO | Erosion of natural deposits |
| 807 Radium (pCi/L) Ra226/228 226 | 0 | 5 | 0 | 9/15 | NO | Erosion of natural deposits |
| Special Monitoring Unregulated* | | | | | | |
| Sodium (ppm) | | | 28 | 11/8/16 | NO | Erosion of Natural Deposits |
| Iron | NR | NR | 0.1 mg/l | 08/13/09 | NO | |
| Chloride | NR | 4.0 | n/a | 08/15/14 | NO | |
| Calcium | NR | 174 | n/a | 08/13/09 | NO | |
| Contaminant subject to Action Level | Action Level | MCLG | 90% of samples </- Level | Date Sampled | Number of samples above AL | |
| Copper (ppm) | 1.3 | 1.3 | 0.482 | 7/17 | 0 | Corrosion of Household plumbing |
| Lead (ppb) | 15 | 0 | 3.5 | 7/17 | 0 | Erosion of natural deposits. |
| Microbial Contaminants | | | | | | |
| Total Coliform Bacteria** | No positive Samples | Positive in 0% of Samples | 0** | Monthly | NO | Naturally present in the environment |
| Hardness | 0.4 | 1.3 | 152 Mg/L | 01/18/11 | No | Erosion of Natural Deposits |

*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. **Coliform are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present.

We will update this report annually and will keep you informed of any problems that may occur throughout the year,

This report will be published in the local newspapers.

This report will not be automatically mailed to individual utility customers of the following water systems; however, a copy of this report may be obtained from:

GRWA, N10338 Mill Street – P.O. Box 445, Ramsay, MI 49959,
Phone 906-667-0465 (Blackjack and Indianhead Water Systems)

Bessemer Township – N10338 Mill Street – PO Box 304, Ramsay, MI 49959
Phone 906-667-0423:

Ironwood Township – N10892 Lake Road, Ironwood MI 49938 – Phone 906-932-8447.

For information about safe drinking water visit the U.S. Environmental Protection Agency web site at www.epa.gov/safewater/.

Thank you for allowing us to continue providing you with clean, quality water this year. The GRWA water distribution system is constantly monitored and overseen by trained water system operators for your protection. In order to maintain a safe and dependable water supply, we often need to make improvements to our system that benefits all of our customers. These improvements are sometimes reflected as rate structure adjustments. We ask all our customers to help us protect our water sources, which are the heart of our community.

Public Water Supply I.D.

Gogebic Range Water Authority – M102685
Wakefield Township – M13343
Bessemer Township – M1059600
Ironwood Township – M3430