

**2005 Annual Drinking Water Quality Report  
City of Ironwood Public Water Supply  
January 16, 2006**

We are pleased to present to you this year's Annual Drinking Water Quality Report. This is designed to inform you about the quality of 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 Source**

Our water source is two glacial aquifers, which serve the Big Springs and Spring Creek Well Fields. These six wells range with a depth of 54 feet to 140 feet. The City of Ironwood water supply recently completed a State of Michigan approved wellhead protection plan to protect the public area water supply.

**Information About This Report**

If you have any questions about this report or concerning your water quality, please contact Bob Tervonen at (906)932-5050 or Jim Ansami and Don Bertels at (906)932-3631. We want our valued customers to be informed about their water quality. If you want to learn more, please attend any of our regularly scheduled meetings. They are normally held on the second and fourth Monday each month at 5:30 pm in the commission chambers of the Memorial Building at 213 South Marquette Street in Ironwood, MI.

**Water Contaminants**

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled water, is expected to contain at least small amounts of some contaminants. It is important 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 1-800-426-4791.

**Abbreviations and Terms**

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

**Parts per million (ppm) on 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) on 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 level of a contaminant, if exceeded, triggers treatment or other requirements that a water system must follow.

**Treatment Technique (TT)** – A treatment technique is a required process intended to reduce the level of a contaminant in the 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 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.

The City of Ironwood Water Department routinely monitors for contaminants in your drinking water according to federal and state laws. This table shows the results of our monitoring for the period January 1<sup>st</sup> to December 31<sup>st</sup>, 2003.

**TEST RESULTS**

<u>Contaminants</u>	<u>Violation</u>	<u>Level</u>	<u>Unit</u>	<u>MCLG</u>	<u>MCL</u>	<u>Likely Source of Contamination</u>
<b>Inorganic Contaminants</b>						
<b>Copper</b>	<b>NO</b>	.60	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
<b>Fluoride</b>	<b>NO</b>	.10	ppm	4	4	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories

<b>Lead</b>	<b>NO</b>	1.0	ppb	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits
<b>Nitrate</b>	<b>NO</b>	.40	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks (as nitrogen); sewage; erosion of natural deposits
<b>Trihalomethanes</b>	<b>NO</b>	.043	ppm	.000	.080	By-product of drinking water chlorination

### **Inorganic Contaminants**

**Copper** – Copper is an essential nutrient. Few individuals who drink water with copper in excess of the action level over a relatively short amount of time may experience gastrointestinal distress. Individuals who drink water with copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson’s Disease should consult their personal doctor.

**Fluoride** – Individuals who drink water with fluoride in excess of the MCL over many years may get bone disease, including pain and tenderness of the bones. Children may also get mottled teeth.

**Lead** – Infants and children who drink water with lead in excess of the action level may 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.

**Nitrate** – Infants below the age of six months who drink water with nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and baby blue syndrome.

**Trihalomethane (TTHM)** – Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, any may have an increased risk of getting cancer.

### **What This Means**

As you can see by the table, our system had no violations. We are 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.**

MCL’s are set at very stringent levels. To understand the possible health effects described for many regulated constituents, one would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

### **Water System Improvements**

Improvements in the distribution system include replacing over 5500’ of defective water main with the installation of over 775’ of 6” ductile iron pipe, 3600’ of 8” ductile iron pipe and over 1600’ of 12” ductile iron pipe to enhance water flow through the distribution system. These improvements also included to replacement of 7 hydrants and 50 copper service lines from the water main to the curb stop. Since 1997, the City of Ironwood has invested over one million eight hundred fifty thousand dollars (\$1.85 million) in our pump station and well fields. These improvements were completed with very modest water rate increases, which are still well below the water rate average in the Upper Peninsula region.

In our continuing efforts to maintain a safe and dependable water supply future water system improvements are necessary. The costs of these improvements may be reflected in the water rate structure.

### **Precautions**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as cancer patients undergoing chemotherapy, patients who have received organ transplants, patients with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk with infections. These individuals 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).

**Please call our office if you have any questions.**