



# WATER QUALITY NEWS

A Newsletter for the Citizens Served by the City of Midland Water System

June 2002

## Quality Report...

Midland's annual Drinking Water Quality Report is intended to update you, our customer, on the continuing efforts made toward ensuring the safety and availability of your drinking water. This report shares the most recent water quality testing data as well as an overview of the Utilities-Water Division and services provided to the community.

Your concerns and opinions are important to us, and we encourage you to contact us with any questions or comments. You can reach us by calling the Water Treatment Plant at 837-3515 or leaving a message on our 24-hour citizen comment line, 837-3400. You may also send an e-mail to [cityhall@midland-mi.org](mailto:cityhall@midland-mi.org) or write to us at 333 West Ellsworth Street, Midland, MI 48640.



Sage Floyd — 4-years-old, enjoying a drink of water. Parents Chad and Kyrsten Floyd of Midland and grandson of WTP operation supervisor Vic Chichester.

## Water Distribution

Water Distribution crews oversaw work being performed by contractors on four City projects. This involved the replacement of 7,808 feet of water main, making it necessary to replace and reconnect 192 water services to customers. Additionally, there were 142 new city service connections completed.

Distribution crews responded to 93 water main breaks throughout the year.

With the addition of Homer, Larkin and Midland townships

and new construction in the City, customer service crews kept busy installing 874 new water meters, up from 275 the previous year. Additionally, 429 existing meters were upgraded, 5,129 service orders were processed and 64,850 meters were read.

The City of Midland completed extension of retail customer service to Midland and Larkin Township. The City has 428 meter services in Larkin Township and 406 meter services in Midland Township.

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### Utility Billing

Water Office • City Hall  
(989) 837-3341

### Here are some helpful City of Midland telephone numbers:

- Questions or concerns about water quality: .....989-837-3515
- To report water main breaks or outside leaks: .....989-631-0814
- 24-hour water emergency services: .....989-837-3515

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# Important Definitions

The following tables contain scientific terms and measures, some of which may require an explanation.

**Maximum Contaminant Level Goal or MCLG:** The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Contaminant Level or MCL:** The highest level of a contaminant, which is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Treatment Technique or TT:** A required process intended to reduce the level of a contaminant in drinking water.

**Action Level or AL:** The concentration of a contaminant which, if exceeded, triggers the need for additional treatment or other requirements which a water system must meet.

**Part per million (PPM); part per billion (PPB):** These units describe the levels of detected contaminants. One part per million is about 1/2 of a dissolved aspirin tablet (162.5 mg) in a full bathtub of water (about 50 gallons). One part per billion is about one dissolved aspirin tablet (325 mg) in a typical 25-meter swimming pool (about 100,000 gallons).

**Turbidity:** is a measure of the clarity of water. The lower the numbers, the more clear the water. It is measured in nephelometric turbidity units (ntu).

## City of Midland Test Results for 2001

### SUBSTANCES REGULATED AT THE WATER TREATMENT PLANT

Substance	Unit	Amount Detected		MCL	MCLG	Likely Source	Violation?
		Lowest	Highest				
Fluoride	ppm	0.09	1.60	4	4	Erosion of natural deposits; Water Treatment additive which promotes strong teeth	NO
Turbidity	ntu	0.03	0.20	TT <sup>1</sup>	n/a	Soil runoff; suspended matter in surface water	NO
Arsenic	ppb	1.1	1.1	10 <sup>2</sup>	0 <sup>2</sup>	Erosion of natural deposit; runoff from orchards; runoff from glass and electronics production wastes	NO

1. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system. The limits for turbidity state that all samples must be below 5 ntu, and that at least 95% of the samples must be lower than 0.5 ntu. Our samples were below 0.5 ntu 100% of the time.
2. These arsenic values are effective 1-26-06, until then, the MCL is 50 ppb and there is no MCLG.

### SUBSTANCES REGULATED IN THE DISTRIBUTION SYSTEM

Substance	Unit	Amount Detected		MCL	MCLG	Likely Source	Violation?
		Range	Highest				
Total Trihalomethanes	ppb	19.1-50.4	36.2 <sup>3</sup>	100		By-products of drinking water chlorination	NO
Total Coliform Bacteria	note <sup>4</sup>	0-1.9%	1.9%	n/a		Naturally present in the environment	NO

3. Highest Running Annual Quarterly Average
4. The MCL for Total Coliform Bacteria states that detects must equate to less than 5% of the total monthly samples collected.

### SUBSTANCES REGULATED AT THE CUSTOMER'S TAP (CITY OF MIDLAND)

Substance	Unit	Amount Detected		MCL	MCLG	Likely Source	Violation?
		90th Percentile	MCL				
Copper <sup>5</sup>	ppm	0.4	AL=1.3	1.3		Corrosion of household plumbing systems	NO
Lead <sup>6</sup>	ppb	8	AL=15	0		Corrosion of household plumbing systems	NO

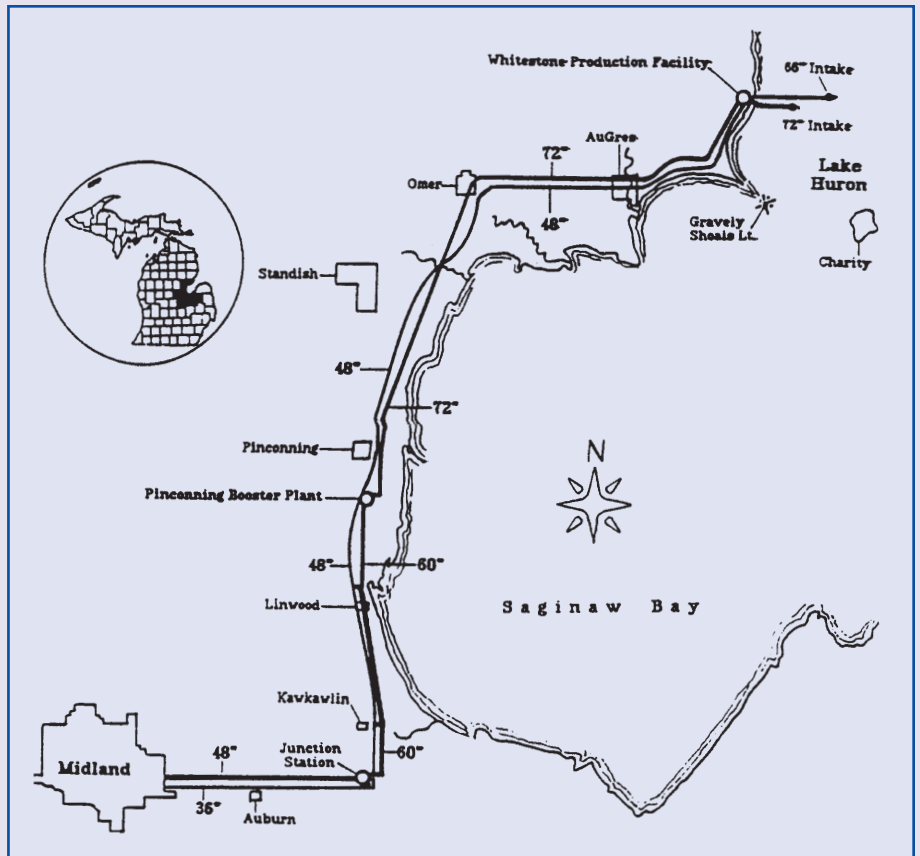
5. One testing site exceeded the Copper Action Level of 1.3 ppm.
6. Three testing sites exceeded the Lead Action Level of 15 ppb. However, MCL compliance is determined using the 90th percentile value.

### UNREGULATED (SINGLE SAMPLE AT WATER TREATMENT PLANT)

Substance	Unit	Amount Detected		Likely Source	Violation?
		Amount Detected	Unit		
Chloroform	ppb	48.1		By-products of drinking water chlorination	NO
Dichlorobromomethane	ppb	12.2		By-products of drinking water chlorination	NO
Sulfate	ppm	15		Erosion of natural deposits	NO

# Where Does Our Water Come From?

Midland has received its source water supply from Lake Huron since 1948. The source water pumping system is jointly owned and operated by the cities of Midland and Saginaw and is called the Saginaw-Midland Municipal Water Supply Corporation (SMMWSC). Water from Lake Huron is drawn into the system through two intake structures located one and two miles offshore at Whitestone Point. The intake structures are screened to keep out debris and fish. The water is chlorinated at Whitestone to kill harmful bacteria and zebra mussels and is then pumped through 65 miles of pipeline to Midland. There is a 110 million gallon source water reservoir located behind the water plant on Bay City Road that is used for flow equalization and an emergency supply in case of loss of water supply. The water treatment complex is able to provide 48 million gallons per day (mgd) of treated Lake Huron water to Midland. The water plant is staffed by professional water treatment plant operators, water analysts and maintenance personnel to produce and deliver this large amount of water whenever and wherever needed. The MDEQ will be completing a source water assessment of our raw water supply by 2003.



## FAQ Frequently Asked Question

**Does using a home water treatment device guarantee that my water is safe?**

**No.** The EPA does not recommend home treatment devices as a substitute for public water treatment because of the difficulty in monitoring their performance. Home treatment devices are not tested or regulated by the federal government. Some, however, are tested by independent laboratories. If you want to use a water treatment device, carefully choose one according to the water conditions in your area. Also, be aware that a device needs to be properly maintained or it could cause water quality problems.

### Water Trivia Facts



**How much water is used to brush your teeth?**

2 gallons

**How much water does it take to make four new tires?**

2,072 gallons

**Water is the only substance found on earth naturally in three forms.**

True (solid, liquid & gas)

# WHAT THE EPA SAYS ABOUT DRINKING WATER CONTAMINANTS

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 (EPA) Safe Drinking Water Hotline (800-426-4791) or e-mail: [sdwa@epa.gov](mailto:sdwa@epa.gov)

## **What if I have special health needs?**

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. Environmental Protection Agency/Centers for Disease Control 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) or e-mail: [sdwa@epa.gov](mailto:sdwa@epa.gov)

**Source Water.** 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 dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The Midland Water Treatment Plant is monitoring for additional contaminants under the EPA's Unregulated Contaminant Monitoring Regulation (UCMR). The information collected under the UCMR will help the EPA determine future drinking water regulations. The results of the monitoring are available upon request.

*Note:* We have also concluded voluntary testing for Halo Acetic Acids, a group of by-products of drinking water chlorination that will be regulated in the near future. Our monitoring results were well below the future maximum contaminant levels (MCLs) for these compounds.

## Information on Copper

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 contact their personal doctor. If you are concerned about elevated copper levels in your home water system flush your tap for 30 seconds to two minutes before using the water. You may desire to have your home's water tested, contact the City's water treatment plant at 837-3515 for information on independent laboratories that provide this service.

## Information on Lead

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 others 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 water system flush your tap for 30 seconds to two minutes before using the water. You may desire to have your home's water tested, contact the City's water treatment plant at 837-3515 for information on independent laboratories that provide this service.



City of Midland Water System recently won the Regional Taste Off sponsored by the Michigan Section of the American Water Works Association held in April 2002. As regional winner, the City will be competing for the State

Championship at the AWWA Annual meeting that will be held in the fall 2002.

Congratulations to the City of Midland Water Treatment staff for its continuing pursuit of providing its customers with quality drinking water. Good Luck in the fall!



## 2001 Drinking Water Quality Report

is produced by the Utilities Department -  
Water Treatment Plant,  
333 W. Ellsworth, Midland, MI 48640.  
[www.midland-mi.org](http://www.midland-mi.org)

This report was mailed to all residences and businesses in the City of Midland and to customers in communities that purchase their water from Midland. Extra copies of the report are available at the Water Plant by calling 989-837-3515 or the City's website at [www.midland-mi.org](http://www.midland-mi.org).

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Midland City Council -- meetings held twice monthly on Monday evenings at 7 p.m.

Check your City calendar for dates.

R. Drummond Black, Ward I / Mayor

Daryl Griggs, Ward II

Hollis McKeag, Ward III

Mary Currie, Ward IV

Marty Wazbinski, Ward V/Mayor Pro Tem

**ECRWSS**  
**Postal Customer**