

2016
CITY OF JONESVILLE, MICHIGAN
ANNUAL DRINKING WATER QUALITY REPORT

We are pleased to present you this year's Annual Drinking Water Quality Report. This report is designed to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide you a safe and dependable supply of drinking water. Our water source is from two wells drawing from the Glacial Drift Aquifer. The wells are located within the City. After the water is removed from the ground, it is aerated before being pumped through pressure filters designed to remove the iron that is present in the raw water. After filtration, chlorine and fluoride are added before the water is pumped to the elevated storage tank.

I am pleased to report that our drinking water is safe and meets federal and state standards.

If you have any questions about this report or concerning your water utility, please contact Rick Mahoney at (517) 849-9450. 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 meetings. Dates and times are posted in the City Hall, 265 East Chicago Street, Jonesville, Michigan or www.jonesville.org.

The City of Jonesville routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows results of our monitoring period of January 1, 2016 to December 31, 2016. Drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune 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 lesson the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

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 land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pickup substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- **Microbial Contaminants**—such as viruses and bacteria, which 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 stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and Herbicides**—which may come from a variety of sources such as agriculture, urban, stormwater runoff, and residential uses.
- **Organic Chemical Contaminants**—including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban runoff, and septic systems.
- **Radioactive Contaminants**—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 systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

2003 SOURCE WATER ASSESSMENT

Your water comes from two (2) ground water wells, each over 80 feet, drawing water from the St. Joseph watershed. The State performed an assessment of our sources water in 2003 to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a six-tiered scale from “very low” to “high” based primarily on geological sensitivity, water chemistry and contaminant sources. The susceptibility of each well is moderate according to the State of Michigan Assessment. The City of Jonesville is continually monitoring our water sources in an effort to protect them. If you would like to learn more about the report, please contact the City of Jonesville, 265 East Chicago Road, Jonesville, Michigan 49250, (517) 849-9450 or www.jonesville.org.

DEFINITIONS

The purpose of this section is to help the reader terms and abbreviations that may not be familiar.

- **Parts per million (ppm)**—one part per million corresponds on one minute in two years, or one penny in \$10,000.00.
- **Parts per billion (ppb)**—one part per billion corresponds to one minute in 2,000 years, or one penny in \$10,000,000.00.
- **Picocuries per liter (pCi/L)**—picocuries per liter is a measure of radioactivity in water.
- **Action Level (AL)**—the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Maximum Contaminant Level (MCL)**—The “maximum allowed” (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.
- **Maximum Contaminant Level Goal (MCLG)**—The “Goal” (MCLG) is the highest level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG’s allow for a margin of safety.
- **Maximum Residual Disinfectant Level (MRDL)**—The highest level of a disinfectant allowed in drinking water. There is evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Maximum Residual Disinfectant Goal (MRDLG)**—The level of drinking water disinfectant below which there is no known or expected risk to health. MDRLG’s do not reflect the benefits of the use of disinfectants to control microbial contaminants.

2016

**CITY OF JONESVILLE
LABORATORY RESULTS**

<u>Regulated Contaminant</u>	<u>MCL</u>	<u>MCLG</u>	<u>Level Detected</u>	<u>Range of Detection</u>	<u>Sample Date</u>	<u>Violation</u>
Arsenic (ppb)	10	0	2 ppb	N/A	08-18-08	NO
Flouride (ppm)	4	4	0.65 ppm	N/A	07-21-16	NO
<u>Radiological Analysis</u>						
Combined Radium 226 & 228			1.6 pCi/L		04-21-14	NO
<u>Special Monitoring</u>						
Sodium (ppm)			<u>Level Detected</u> 14 ppm		<u>Sample Date</u> 07-21-16	
<u>Contaminant Subject To Action Level</u>						
Lead (ppb)			<u>Action Level</u> 15	<u>90% of Samples < than this Level</u> 2.0	<u>Sample Date</u> 08-11-15	<u>Number of Samples Above Action Level</u> 0
Copper (ppb)			1300	570	08-11-15	0
<u>Disinfectants & By-Products</u>						
Chlorine Residual (ppm) (Total)			<u>MRDL</u> 4.0	<u>MRDLG</u> 4.0	<u>Level Detected</u> 0.283 ppm	<u>Highest Monthly Avg.</u> 0.68 ppm <u>Lowest Monthly Avg.</u> 0.08 ppm

Typical Sources of Contamination

- **Arsenic**—Erosion of natural deposits. Runoff from orchards. Runoff from glass & electronics production wastes.
- **Fluoride**—Erosion of natural deposits. Discharge from fertilizer & aluminum factories.
- **Sodium**—Erosion of Natural Deposits.
- **Lead**—Corrosion of household plumbing systems. Erosion of natural deposits.
- **Copper**—Corrosion of household plumbing systems. Erosion of natural deposits. Leaching from wood preservatives.
- **Chlorine**—Water additive used to control microbes.
- **Total Trihalomethane**—Byproduct of drinking water disinfection.

Special Health Effects

Fluoride—It should be noted that the detectable level of fluoride is due to the fact that we add fluoride to the water to promote strong teeth. The level of fluoride added is monitored daily and tested two times per month. The EPA has determined that your water is safe at these levels. Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

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. The City of Jonesville 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 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/drink/info/lead>.

Conclusions

As you can see by the table, the City of Jonesville had no violations and the drinking water meets or exceeds all Federal and State requirements. The City of Jonesville has tested for contaminants as required, since 1988 and a copy of these results are available upon request. We ask that all our customers help us protect our water sources, which are at the heart of our community, our way of life and our children's future.