

2018 WATER QUALITY REPORT FOR CHASSELL TOWNSHIP

This report covers the drinking water quality for Chassell Township in the calendar year 2018. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards.

The new source wells went active in October of 2004.

Water is pumped from these wells to the chlorination plant. These are located west of town. **The State performed an assessment of our source water in 2003 to determine the susceptibility or the relative potential of contamination. The new wells have yet to be assessed.**

Contaminants and their presence drinking water

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 effect can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

Vulnerability of sub-populations

Some people may be more vulnerable to contaminants in drinking water than the general population, immunocompromised persons such as persons who have undergone chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can particularly be 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 the infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Sources of drinking water

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land and 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. Contaminants that may be present in source water include:

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 the 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 Contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

STATEMENT ABOUT LEAD: Infants & children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attentionspan and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Chassell Township is responsible for providing high quality drinking water, but cannot control a 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 cooking and drinking. 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>.

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 provide the same protection for public health.

Water Quality Data Table

Each year, the Township is required to sample the drinking water for various contaminants. The table below lists all contaminants that were detected in 2017. The state allows us to monitor for certain contaminants less than annually because the concentrations of these contaminants are not expected to change frequently. Any violations are printed in **bold**, and an explanation of each violation (if any) is provided on the next page.

Terms and Abbreviations:

***Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as possible using the best available treatment technology.

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

***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 control of microbial contaminants.

***Maximum Residual Disinfectant Level Goal (MRDLG):** means the level of a water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

***Action Level (AL):** The concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

***pCi/l** - picocuries per liter ***ppm** - parts per million or milligrams per liter ***NA** - Not Applicable

***ND** - not detected at testing limit ***ppb** - parts per billion or micrograms per liter ***ug/l** micro grains per liter

Regulated Contaminants

Contaminant	MCL	MCLG	Our Water	Sample Date	Violation	Typical Source of Contaminant
Arsenic	50 ppb	50 ppb	<i>ND</i>	9/10	No	Erosion of natural deposits; Runoff from pesticide use (orchards)
Flouride	4ppm	4ppm	.14	2018	No	Erosion of natural deposits.
Barium	2000ppb	0ppb	27	10/04	No	Erosion of natural deposits;
Chlorine	<i>MRDL</i> 4ppm	<i>MRDLG</i> 4ppm	0 .37 avg (0.3-0.4)	Monthly	No	Water additive used to control microbes.
Trihalomethanes (ppm)	80	80	.0037	2018	No	Byproducts of disinfection
Haloacetic Acids (ppm)	60	60	.0004	2018	No	Byproducts of disinfection

Radioactive Contaminants	MCL	MCLG	Our Water	Sample Date	Violation	Typical Source of Contaminant
Alpha Emitters	15 pci/l	0 pci/l	8.8	2018	No	Erosion of natural deposits.
Uranium	30 ug/l	0 ug/l	10.8	2016	No	Erosion of natural deposits.
Combined 226/228	5 pci/l	0 pci/l	1.6	2015	No	Erosion of natural deposits.

Unregulated Contaminants	Our Water	Sample Date	Violation	Typical Source of Contaminant
Sodium (ppm)	2.6	2017	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.

Lead & Copper Monitoring Contaminant(s)		Our Water	Sample Date	Number of Samples Above AL	Violation	Typical Source of Contaminant
AL						
Copper ppm	1.3	.6	2017	0	No	Corrosion of household plumbing systems.
Lead ppb	15	1.4	2017	0	No	Corrosion of household plumbing systems.

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 consult their personal doctor.

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

This report will not be mailed to customers. Copies are available at the Township office during regular office hours. If you have any additional questions concerning this report please contact: Timothy Viola, Chassell Township, P.O.Box 438, 22115 7th St., Chassell, MI 49916, (906) 481-4000