

# CITY OF MONTAGUE

## ANNUAL WATER QUALITY REPORT FOR 2016

**This report contains** a summary of the quality of the water provided. It also details where our water comes from, what it contains, and how it compares to Environmental Protection Agency and State Standards. The City of Montague is committed to providing you with the safest and most reliable water supply; informed consumers are our best allies in maintaining safe drinking water.

**Sources of drinking water;** the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from 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.

**Your water comes from groundwater via five municipal wells.** The State performed an assessment of our source water in 2003 to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a seven-tiered scale from "very low to very high" based primarily on geologic sensitivity, water chemistry and contaminant sources. The susceptibility of the well located on Water Street and a well on Ochs Road were rated moderately low. All three wells located on Lasley Street were rated very low. A copy of the full report can be obtained by contacting the Montague City Hall at 8778 Ferry Street, Montague, Michigan

**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 the water poses 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 (800-426-4791).

**Montague's water supply comes from groundwater.** As water travels through the ground it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or human activity. These include:

- ❖ *Microbial contaminants*, such as viruses and bacteria, which may 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 storm water runoff, industrial or domestic wastewater discharges, and oil and gas production, mining or farming.
- ❖ *Pesticides and herbicides*, which may come from a variety of sources such as agriculture and residential uses.
- ❖ *Radioactive contaminants*, which are naturally occurring.
- ❖ *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.

**In order to ensure that tap water is safe** to drink, The EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. We treat our water according to EPA's regulations. The Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

**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/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).

**The following table** lists all the drinking water contaminants that we detected during the 2016 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, data is from testing January 1-December 31, 2016. The State allows us to monitor for some contaminants less than once per year because the concentrations of those contaminants are not expected to vary significantly from year to year. All of the data is current and representative of the water quality even though some sample results are more than a year old.

**Beginning in January 2006, drinking water supplies must comply with the new arsenic maximum contaminant level (MCL) of 0.010 milligrams per liter, or 10 parts per billion (ppb).** In 2005 the arsenic MCL was 50 ppb.

**Terms and abbreviations used below:**

- ❖ **Action Level:** The concentration of a contaminant, which, if exceeded, triggers treatment, or other requirements, which a water system must follow.
- ❖ **Maximum Contaminant Level Goal (MCLG):** 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.
- ❖ **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close as feasible using the best available treatment technology.
- ❖ **Maximum Residual Disinfectant Level (MRDL):** 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):** 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 disinfectants to control microbial contaminants.

- **N/D:** Not detected
- **PPM:** Parts per million or milligrams per liter
- **PPB:** Parts per billion
- **PCi/l:** Pico curries per liter (a measure of radiation)

Regulated in Distribution System	MRDL	MRDLG	Average or Running Annual Average	Range	Violation	Major Sources in Drinking Water
Chlorine (ppm)	4	4	0.18	.01- .82	No	Water additive used to control microbes
Total Haloacetic Acids (ppb) August-2016	60	n/a	2	2	No	Disinfection by products
Total Trihalomethanes (ppb) August-2016	80	n/a	30.7	30.7	No	Disinfection by products

  

Inorganic Contaminants	MCL	MCLG	Average	Range	Violation	Major Sources in Drinking Water
Barium (ppm) 7/18/2012	2	2	0.12		No	Discharge of drilling wastes; metal refineries; erosion of natural deposits
Fluoride (ppm)	4	4	0.32	0.15-0.58	No	Erosion of natural deposits, Discharge from fertilizer and aluminum factories
Thallium (ppb) 2012	2		0		No	Leaching from ore processing sites; discharge from electronic, glass, and drug factories
Selenium (ppb) 2012	50	50	0		No	Discharge from petroleum and metal refineries; mines; erosion of natural deposits
Arsenic (ppb) 2012	10		0		No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes

  

Unregulated Contaminants	MCL	MCLG	Average	Range	Violation	Major Sources in Drinking Water
Sodium (ppm)	n/a	n/a	46.6	9 – 84	No	Erosion of natural deposits

  

Radioactive Contaminants	MCL	MCLG	Highest Level Detected	Range	Violation	Major Sources in Drinking Water
Gross Alpha 2/23/16	15pCi/l	0	N/D	N/D	No	Erosion of natural deposits
Gross Beta 2/26/16	50pCi/l	0	N/D	N/D	No	Erosion of natural deposits
Tritium 9/6/16			N/D	N/D	No	Erosion of natural deposits
Radium 226/228 combined 2/23/16	5 pCi/l	0	N/D	N/D	No	Erosion of natural deposits

Regulated at the Customers Tap	Action Level	Montague 90 <sup>th</sup> Percentile	# of sites found above the Action Level	Violation	Major Sources in Drinking Water
Copper (ppb) 2015	1300	470	0	No	Corrosion of household Plumbing
Lead (ppb) 2015	15	3	0	No	Corrosion of household Plumbing

### HEALTH EFFECTS FOR 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 Montague is responsible for providing high quality drinking water, but can not 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 State Drinking Water Hotline at 800-426-4791 or at <http://www.epa.gov/safewater/lead>

In 1995 the City of Montague, in an attempt to determine susceptibility of the system to contamination started testing for tritium. Tritium analysis is used to estimate the time since recharge to the groundwater system and the susceptibility of the groundwater system to contamination. Groundwater systems with recharge occurring before the 1950s will have a tritium level at or below 1 (tritium unit). These groundwater systems are considered not vulnerable and those with higher levels are considered vulnerable. This test was completed again in 2004 with no detectable levels of tritium.

In 2007 a new well was added to the system and after testing, a low level of tritium was detected. This well was again tested in 2008 with a low level tritium again detected. The City is complying with all testing regulations. The City of Montague has a Department of Environmental Quality approved well head protection program.

**The Department of Public Works operates the City of Montague Water System.** You are encouraged to attend City Council meetings on the first and third Mondays of each month at 5:30 p.m. at the Montague City Hall, 8778 Ferry Street in Montague. **This report will not be mailed.**  
**For copies of this report or the results of early monitoring information, please contact:**

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