

2016 Water Quality Report for Village of Almont

This report covers the drinking water quality for the Village of Almont for the 2016 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2016. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards.

Your water comes from the Lake Huron Water Treatment Plant located five miles north of the City of Port Huron. The water arrives at the plant via a deep tunnel with the intake offshore under 45 feet of water. The water is pumped from the water treatment plant to the Village of Almont. Your source water comes from the lower Lake Huron watershed; the watershed includes numerous short, seasonal streams that drain to Lake Huron. The Michigan Department of Environmental Quality in partnership with U.S. Geological Survey, The Great Lakes Water Authority, and the Michigan Public Health Institute performed a source water assessment in 2004 to determine the susceptibility of potential contaminant. 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 Lake Huron water treatment plant has historically provided satisfactory treatment of this source water to meet drinking water standards. The Village of Almont also has a groundwater well located at 121 West St. Clair Street. We use this well only in emergencies, for example, if the Lake Huron plant or the pipeline is out of service. The State will be performing an assessment of our source water. We will inform you on how to get a copy of the assessment report when it becomes available. If you would like to know more about this report please contact your local water department at (810)798-8528.

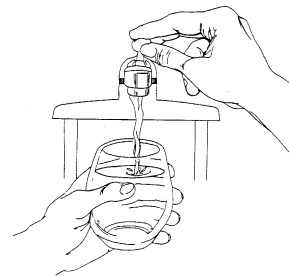
- **Contaminants and their presence in water:** Drinking Water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the **EPA's Safe Drinking Water Hotline (800-426-4791)**.

- **Vulnerability of sub-populations:** 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 systems 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).

- **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.
- Contaminants that may be present in source water 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 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 and residential uses.
 - * **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.
 - * **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 stormwater runoff, and septic systems.

In order to ensure that tap water is safe to drink, EPA



prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which provide the same protection for public health.

Water Quality Data

The table below 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, the data presented in this table is from testing done January 1 – December 31, 2016. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. All of the data is representative of the water quality, but some are more than one year old.

Terms and abbreviations used below:

- **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 to the MCLGs 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):** means 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/A:** Not applicable **ND:** not detectable at testing limit **ppb:** parts per billion or micrograms per liter **ppm:** parts per million or milligrams per liter **pCi/l:** picocuries per liter (a measure of radioactivity).
- **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- **Level 1 Assessment:** A study of the water supply to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
- **Level 2 Assessment:** A very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Stand by Well # 3 " Saint Clair Street", used for emergencies only

Regulated Contaminant	MCL	MCLG	Level Detected	Range	Year Sampled	Violation Yes / No	Typical Source of Contaminant
Arsenic (ppb)	10	0	2	N/A	2014	no	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	0.02	N/A	2014	no	Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	0.74	N/A	2016	no	Erosion of natural deposits. Discharge from fertilizer and aluminum factories.
Radioactive Contaminant	MCL	MCLG	Level Detected	Range	Year Sampled	Violation Yes / No	Typical Source of Contaminant
Combined radium (pCi/L)	5	0	0.33	N/A	2014	no	Erosion of natural deposits
Special Monitoring and Unregulated Contaminant *			Level Detected	Year Sampled	Comments		
Sodium (ppm)			34	2016	Typical source is 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.

Information about 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 Village of Almont 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 or at <http://www.epa.gov/safewater/lead>.

From January 1, 2016, to March 31, 2016:

Microbial Contaminants	MCL	MCLG	Number Detected	Violation Yes / No	Typical Source of Contaminant
Total Coliform Bacteria	>1 positive monthly sample (>5.0% of monthly samples positive)	0	none	no	Naturally present in the environment
Fecal Coliform and <i>E. coli</i>	Routine and repeat sample total coliform positive, and one is also fecal or <i>E. coli</i> positive	0	none	no	Human and animal fecal waste

From April 1, 2016, to December 31, 2016:

Microbial Contaminants	Number Detected	Level 1 Assessment Triggered?	Level 2 Assessment Triggered?	Violation Yes / No	Typical Source of Contaminant
Total Coliform Bacteria	1**	no	no	no	Naturally present in the environment
Fecal Coliform and <i>E. coli</i>	none	no	no	no	Human and animal fecal waste

**A routine sample tested positive for total coliform during August 2016, 3 repeat samples were taken including upstream and downstream of the sight, and those samples did not detect any bacteria. Samples taken since then show that all results met acceptable limits.

For more information, please contact Mr. Bryan Treat, Village of Almont, 817 North Main Street, Almont, MI, 48003 at 810-798-8528.

Monitoring and Reporting to the DEQ Requirements: The State and EPA require us to test our water on a regular basis to ensure its safety. We met all the monitoring and reporting requirements for 2016. We are committed to providing you safe, reliable, and healthy water. We are pleased to provide you with this information to keep you fully informed about your water. We will be updating this report annually, and will also keep you informed of any problems that may occur throughout the year, as they happen.

We invite public participation in decisions that affect drinking water quality. You are invited to attend the Village Council meetings held the first and third Tuesday of each month at 7:30 p.m. at the Almont Municipal Building. For more information about your water, or the contents of this report, contact Bryan Treat at (810) 798-8528. For more information about safe drinking water, visit the U.S. Environmental Protection Agency at www.epa.gov/safewater/.

Key to the Detected Contaminants Table

Symbol	Abbreviation	Definition/Explanation
>	Greater than	
°C	Celsius	A scale of temperature in which water freezes at 0° and boils at 100° under standard conditions.
AL	Action Level	The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.
HAA5	Haloacetic Acids	HAA5 is the total of bromoacetic, chloroacetic, dibromoacetic, dichloroacetic, and trichloroacetic acids. Compliance is based on the total.
LRAA	Locational Running Annual Average	The average of analytical results for samples at a particular monitoring location during the previous four quarters.
MCL	Maximum Contaminant Level	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.
MCLG	Maximum Contaminant Level Goal	The level of contaminant in drinking water below which there is no known or expected risk to health.
MRDL	Maximum Residual Disinfectant Level	The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MRDLG	Maximum Residual Disinfectant Level Goal	The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.
n/a	not applicable	
ND	Not Detected	
NTU	Nephelometric Turbidity Units	Measures the cloudiness of water.
pCi/L	Picocuries Per Liter	A measure of radioactivity
ppb	Parts Per Billion (one in one billion)	The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligram.
ppm	Parts Per Million (one in one million)	The ppm is equivalent to milligrams per liter. A milligram = 1/1000 gram.
RAA	Running Annual Average	The average of analytical results for all samples during the previous four quarters.
TT	Treatment Technique	A required process intended to reduce the level of a contaminant in drinking water.
TTHM	Total Trihalomethanes	Total Trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane and bromoform. Compliance is based on the total.
µmhos	Micromhos	Measure of electrical conductance of water

**Lake Huron Water Treatment Plant
2016 Regulated Detected Contaminants Tables**

Inorganic Chemicals – Monitoring at the Plant Finished Water Tap								
Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest Level Detected	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Fluoride	5-10-16	ppm	4	4	0.50	n/a	no	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	5-10-16	ppm	10	10	0.46	n/a	no	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfection By-Products – Monitoring in Distribution System, Stage 2 Disinfection By-Products								
Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest LRAA	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Total Trihalomethanes (TTHM)	2016	ppb	n/a	80	41.1	N/A		By-product of drinking water chlorination
Haloacetic Acids (HAA5)	2016	ppb	n/a	60	15	N/A		By-product of drinking water disinfection

Disinfectant Residuals – Monitoring in Distribution System by Treatment Plant								
Regulated Contaminant	Test Date	Unit	Health Goal MRDLG	Allowed Level MRDL	Highest RAA	Quarterly Range of Detection	Violation yes/no	Major Sources in Drinking Water
Total Chlorine Residual	Jan-Dec 2016	ppm	4	4	0.79	0.61-0.85	no	Water additive used to control microbes

2016 Turbidity – Monitored every 4 hours at Plant Finished Water			
Highest Single Measurement Cannot exceed 1 NTU	Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%)	Violation yes/no	Major Sources in Drinking Water
0.28 NTU	100 %	no	Soil Runoff

Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

2016 Microbiological Contaminants – Monthly Monitoring in Distribution System					
Regulated Contaminant	MCLG	MCL	Highest Number Detected	Violation yes/no	Major Sources in Drinking Water
Total Coliform Bacteria	0	Presence of Coliform bacteria > 5% of monthly samples	0	NO	Naturally present in the environment
E. coli Bacteria	0	A routine sample and a repeat sample are total coliform positive, and one is also fecal or E.coli positive.	0	NO	Human waste and animal fecal waste.

2014 Lead and Copper Monitoring at Customer Tap								
Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Action Level AL	90 th Percentile Value*	Number of Samples over AL	Violation yes/no	Major Sources in Drinking Water
Lead	2014	ppb	0	15	0	0	NO	Corrosion of household plumbing system; Erosion of natural deposits.
Copper	2014	ppm	1.3	1.3	0.1	0	NO	Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives.

*The 90th percentile value means 90 percent of the homes tested have lead and copper levels below the given 90th percentile value. If the 90th percentile value is above the AL additional requirements must be met.

Regulated Contaminant	Treatment Technique	Typical Source of Contaminant
Total Organic Carbon (ppm)	The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. The TOC was measured each quarter and because the level was low, there is no TOC removal requirement	Erosion of natural deposits

Radionuclides 2014							
Regulated contaminant	Test date	Unit	Health Goal MCLG	Allowed Level	Level detected	Violation Yes/no	Major Sources in Drinking water
Combined Radium 226 and 228	5-13-14	pCi/L	0	5	0.86 + or – 0.55	no	Erosion of natural deposits

Contaminant	MCLG	MCL	Level Detected	Source of Contamination
Sodium (ppm)	n/a	n/a	4.00	Erosion of natural deposits