



Oconomowoc Water Utility 2016 Water Quality Report

We, at the Oconomowoc Water Utility, are pleased to present to you this year's Annual Water Quality Report. This report is designed to provide information about the quality of the water delivered to you every day. Our constant goal is to provide a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our valuable water resources. We are committed to ensuring the quality of the water. The Oconomowoc Water Utility uses six ground water wells to supply your water through four entry points. Five of the wells are drilled deep into the Sandstone Aquifer and the sixth well obtains water from the shallow Sand and Gravel formation. We are pleased to report that our drinking water is safe and meets all Federal and State requirements.

If you have any questions about this report or concerning your water utility, please contact the Water Superintendent, Scott Osborn, P.E. at 262-569-2196 or visit our website at www.oconomowoc-wi.gov/. We want our customers to be informed about their water utility. If you would like to learn more, please attend any of our regularly scheduled Utility Committee meetings. These meetings are held on the fourth Tuesday of each month at 4:00 PM in the Oconomowoc City Hall, Room 3, located at 174 E. Wisconsin Avenue.

The Oconomowoc Water Utility routinely monitors for constituents in your drinking water according to Federal and State laws. The Utility collected over 250 water samples this year, with all results coming back safe/under the specified Maximum Contaminant Level (MCL). With that great news, we're proud to declare that your drinking water meets or exceeds all Federal and State requirements.

The Test Results Table on the following page shows the results of our monitoring for the period of January 1st, 2012 to December 31st, 2016. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk. The Environmental Protection Agency (EPA) has determined that your water is safe at these levels. The other constituents detected are summarized on the Table to follow on the next pages.

PLEASE REMEMBER: "All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or are manmade. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials."

All 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 at (800) 426-4791.

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. For guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants, please check the Safe Drinking Water Hotline at (800) 426-4791.

Cross Connection Control Program: To continue to protect the public health and keep the water system safe from contaminants and pollutants, we are required by the Wisconsin Department of Natural Resources, Wisconsin Department of Commerce, and the City of Oconomowoc Municipal Code to maintain a Cross Connection Control Program. You can help us to ensure safe drinking water at the tap in your own home by installing vacuum breakers on your exterior garden hose connections. These are inexpensive and can be purchased at your local hardware store.

TEST RESULTS TABLE

Contaminant / Sample Date	Violation Y / N	Level Detected	Range of Entry Points	Units of Measure	MCLG	MCL	Likely Source of Contamination	
Total Coliform	No	0	Nd	each	0	5%	Naturally present in environment	
Radioactive Contaminants Including (+ or -) Factors)								
Gross Alpha 4/15/2008 to 1/19/2009	Entry Point 7 Entry Point 6 Entry Point 200 Entry Point 300	No	Ave 2.08 1.30 3.60 1.34	Nd to 5.60	pCi/l	0	15	Erosion of natural deposits
Radium 226+228 (Total)	(2014)	No	1.50	0.80 to 1.50	pCi/l	0	5	Erosion of natural deposits
Radium 228	4/15/2008 to 1/19/2009 Entry Point 7 Entry Point 200 Entry Point 300	No	Ave .408 .274 .460 .490	Nd to .900	pCi/l	0	5	Erosion of natural deposits
Inorganic Contaminants (IOC's)								
Arsenic (2014)	Entry Point 4 Entry Point 6 Entry Point 7 Entry Point 200	No	1.10 Nd 6.00 1.80	Nd to 6.00	ug/l or ppb	n/a	10	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics productive wastes
Barium (2014)	Entry Point 4 Entry Point 6 Entry Point 7 Entry Point 200	No	.072 .100 .180 .160	.072 to .180	mg/l or ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Cadmium (2011)	Entry Point 4 Entry Point 6 Entry Point 7 Entry Point 200	No	Nd Nd Nd Nd	Nd	ug/l or ppb	5	5	Corrosion of galvanized pipes; erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries& paints
Chromium (2011)	Entry Point 4 Entry Point 6 Entry Point 7 Entry Point 200	No	Nd Nd Nd Nd	Nd	ug/l or ppb	100	100	Discharge from steel and pulp mills; Erosion of natural deposits
Copper (2014)	0 sample > AL Range using 30 Sample Sites	No	90% .290	.190 to 1.100	mg/l or ppm	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching of wood preservatives
Fluoride	2016 Monthly Average 2016 Maximum Result	No	Ave 0.70	0.65 to 0.73	mg/l or ppm	4	4	Erosion of natural deposits; Water additive promoting strong teeth; Discharge from fertilizer and aluminum factories
Lead (2014)	1 samples > AL Range uses 30 Sample Sites	No	90% 9.0	.32 to 28	ug/l or ppb	0	AL= 15	Corrosion of household plumbing systems; Erosion of natural deposits;
Nickel (2014)	Entry Point 4 Entry Point 6 Entry Point 7 Entry Point 200	No	1.50 1.50 1.00 1.20	1.00 to 1.50	ug/l or ppb		100	Nickel occurs naturally in soils; ground water and surface waters and is often used in electroplating stainless steel and alloy products
Nitrate (NO3-N)	Entry Point 4 Entry Point 6 Entry Point 7 Entry Point 200	No	Ave 4.46 Nd Nd Nd	0.00 to 4.79 Nd Nd Nd	mg/l or ppm	10	10	Run off from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (2011)	Entry Point 4 Entry Point 6 Entry Point 7 Entry Point 200	No	4.2 Nd 2.2 Nd	Nd to 4.2	ug/l or ppb			Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Sodium (2014)	Entry Point 4 Entry Point 6 Entry Point 7 Entry Point 200	No	110.0 12.0 7.90 16.0	7.9 to 110.0	mg/l or ppm	n/a	n/a	n/a
Hardness, total as CaCO3		n/a	Ave 313	270 to 340	mg/l or ppm	n/a	n/a	Characteristic of deep well water; Grains = ppm divided by 17.1
PH		n/a	Ave 7.53	7.35 to 7.78		n/a	n/a	n/a
Unregulated Contaminants								
Sulfate (2011)		No	23	11.0 to 23.0	mg/l or ppm	n/a	n/a	n/a
Hexavalent Chromium (2011)		No	0.19	Nd to 0.19	ug/l or ppb	n/a	n/a	n/a
Chromium (2011)		No	0.28	Nd to 0.28	ug/l or ppb	n/a	n/a	n/a
Strontium (2011)		No	680	Nd to 680	ug/l or ppb	n/a	n/a	n/a
Molybdenum (2011)		No	1.2	Nd to 1.2	ug/l or ppb	n/a	n/a	n/a

Disinfection Byproducts							
Haloacetic Acids (HAA5)	No	Ave 3.38	2.56 to 4.2	ug/l or ppb	60	60	By-product of chlorination
Total Trihalomethanes (TTHM)	No	Ave 12.11	8.78 to 15.44	ug/l or ppb	0	80	By-product of chlorination
Bromoform	No	Ave 0.51	0.28 to 0.74	ug/l or ppb	n/a	n/a	n/a
Chloroform	No	Ave 5.25	4.6 to 5.9	ug/l or ppb	n/a	n/a	n/a
Bromodichloromethane	No	Ave 3.7	0.97 to 5.0	ug/l or ppb	n/a	n/a	n/a
Methyl-Tert-Butyl-Ether	No	Ave 0.13	Nd – 0.23	ug/l or ppb	n/a	n/a	n/a
Dibromochloromethane	No	Ave 2.65	1.5 to 3.8	ug/l or ppb	n/a	n/a	n/a
Dibromoacetic Acid	No	Ave 0.87	0.44 to 1.3	ug/l or ppb	n/a	n/a	n/a
Dichloroacetic Acid	No	Ave 1.4	1.2 to 1.6	ug/l or ppb	n/a	n/a	n/a
Monobromoacetic Acid	No	Nd	Nd	ug/l or ppb	n/a	n/a	n/a
Monochloroacetic Acid	No	Nd	Nd	ug/l or ppb	n/a	n/a	n/a
Trichloroacetic Acid	No	Ave 1.11	0.92 to 1.3	ug/l or ppb	n/a	n/a	n/a

In the Test Results Table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Action Level (AL) - the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that 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. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - the "Goal" (MCLG) is 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.

Nd – No Detection

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (ug/l) - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Public Educational Information

The enforceable limit for Arsenic in drinking water is established at 10 ppb. All of our entry points were tested in 2014 and were found to be below the 10 ppb standard. The following educational statement must be provided if any of our test results are greater than 5 ppb but less than 10 ppb.

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations, and is linked to other health effects such as skin damage and circulatory problems.

The enforceable limit for Lead in drinking water as an Action Level of 15 ppb. All of our distribution samples were tested in 2014 and the reported 90th percentile level was found to be below the 15 ppb standard. The following educational statement must be provided for Lead.

Infants and 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 attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Thank you for allowing us to continue providing you and your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments.

We at the Oconomowoc Water Utility work around the clock to provide top quality water to every tap. We ask that all of our customers help us protect our water sources, which are the heart of our community.

Please visit our website at www.oconomowoc-wi.gov or call the Water Department at (262) 569-2196 for additional questions on any of the information presented in this publication.