

UNREGULATED CONTAMINANTS

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. EPA required us to participate in this monitoring.

CONTAMINANT (UNITS)	LEVEL FOUND	RANGE	SAMPLE DATE (If prior to '18)
Sulfate (ppm)	240.00	61.00 - 240.00	
Molybdenum (ppb)	1.09174	1.009-1.175	11/03/14 - 05/13/14
Strontium	Avg. 20529.017	58.5264 - 52614.17	11/03/14 - 05/13/14
Vandium (ppb)	0.286	0.241 - 0.338	11/03/14 - 05/13/14
Chlorate	Avg. 190.898	73.099-360.438	11/03/14 - 05/13/14
1,4-Dioxane (ppb)	Avg. 1.57276	0.94653-2.59171	11/03/14 - 05/13/14
Colbalt (ppb)	1.0447	1.0447	11/03/14 - 05/13/14

WATER PROPERTIES	LEVEL FOUND	RANGE	SAMPLE DATE (If prior to '18)
Alkalinity	287/mg/l		
Hardness	23.7/grains/gal.		
Ph	7.46 S.U.		

LEAD SERVICES

We are currently unaware of any lead water services to homes or businesses in the Village of Germantown and have not seen any evidence indicating we do.

Opportunity for input on decisions affecting our water quality

First Tuesday of each month at 6:00 p.m. in the Village Hall Board Room - with the Public Works & Highway Committee, located at N112 W17001 Mequon Rd. Germantown, WI 53022. The day and time maybe subject to change.

DEFINITIONS

AL = Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements, which a water system must follow.

A Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine, if possible, why total coliform bacteria have been found in our water system.

A Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine, if possible, why an E. coli MCL violation has occurred or why total coliform bacteria have been found in our water system, or both, on multiple occasions.

Maximum Contaminate Level (MCL): 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.

MFL: million fibers per liter

MRDL: Maximum residual disinfectant level: 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.

MRDLG: Maximum residual disinfectant level goal: The level of 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.

NTU: Nephelometric Turbidity Units

pCi/l Picocuries per liter (a measure of radioactivity).

ppm: Parts per million, or milligrams per liter (mg/l).

ppb: Parts per billion, or micrograms per liter (ug/l).

ppt: Parts per trillion, or nanograms per liter (ng/L).

ppq: Parts per quadrillion, or picograms per liter.

S.U.: Standard units or a definite magnitude of quantity.

TCR: Total Coliform Rule.

TT: Treatment Technique: a required process intended to reduce the level of a contaminant in drinking water.

- Each contaminant range is from no detect (nd) to the maximum reported value.



DEPARTMENT OF PUBLIC WORKS



Annual Germantown Water Quality Report

WATER QUALITY MEETS ALL REGULATORY STANDARDS

In the year 2018, the Germantown Water Utility (GWU) conducted all DNR required tests to ensure the safety and quality of the drinking water delivered to our customers. All laboratory analysis indicated that the water provided by the Utility met all Federal and State drinking water standards.

This report summarizes the water quality provided to customers in 2018. It also includes details about where your water comes from, what has been detected in your water and how that compares to regulatory standards. We are committed to providing you with useful information.

SPECIAL HEALTH INFORMATION AVAILABLE

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 Environmental Protection Agency's safe drinking water hotline (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 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 Environmental Protection Agency's safe drinking water hotline (800-426-4791).

HEALTH EFFECTS FOR ANY CONTANINANTS WITH MCL VIOLATION/ACTION LEVEL EXCEEDANCES

Infants and young 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.

Additional health Information

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. Germantown Water

Utility 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 Safe Drinking Water Hotline at (800) 426-4791 or at www.epa.gov/safewater/lead.

DETECTED CONTAMINANTS

Your water was tested for many contaminants last year. We are allowed to monitor for some contaminants less frequently than once a year. The following tables list only those contaminants which were detected in your water. If a contaminant was detected last

year, it will appear in the following tables without a sample date. If the contaminant was not monitored last year, but was detected within the last 5 years, it will appear in the tables along with the sample date.

CUSTOMER QUESTIONS WELCOME

Numerous opportunities exist to learn more about the GWU and water quality. If you have any questions about drinking water quality, this report, tour information or public works committee meeting - first Tuesday of every month/6:00 p.m. in the Village Hall Board Room located at N112 W17001 Mequon Rd. Germantown, WI 53022 - please call (262)250-4703 or (262)250-4720

SOURCE OF GERMANTOWN’S DRINKING WATER

Germantown draws drinking water from both the sandstone and limestone aquifers, a groundwater source, via six wells. The GWU owns the land around these wells and restricts any activity that could lead to contamination. As water flows through rivers and lakes and over landsurfaces, naturally occurring substances may be dissolved into the water. Animals and human activities also may affect the water. These substances are then called contaminants. Not all contaminants are harmful. For example, the following contaminants might exist in



“untreated” water. Inorganic contaminants, such as salts and metals; biological contaminants, such as viruses, protozoa and bacteria; organic chemicals from industrial or petroleum use; pesticides and herbicides; and radioactive materials. To ensure tap water is safe to drink, the EPA and WDNR prescribe regulations, which limit the amount of certain contaminants in water provided by public water systems. The GWU is in compliance with all EPA and WDNR standards.

Drinking water (including bottled water) may be reasonably 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 Safe Drinking Water Hotline at (800) 426-4791.

SOURCE(S) OF WATER

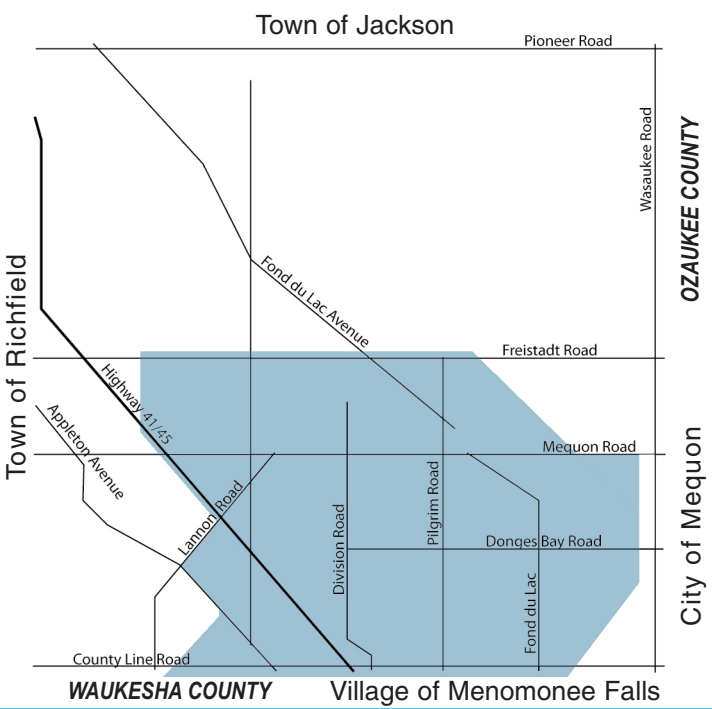
SOURCE ID	SOURCE	DEPTH	STATUS
2	Ground Water	342	Active
3	Ground Water	865	Active
4	Ground Water	1271	Active
5	Ground Water	415	Active
7	Ground Water	370	Active
11	Ground Water	1401	Active

COSTS OF LEAKY PIPES

SIZE OF HOLE	GALS/MIN	GALS/DAY	GALS/YR	COST/YR
(0.1 INCH)	2.1	3,012	1,099,246	\$ 2,198
(0.2 INCH)	8.4	12,047	4,396,983	\$ 8,793
(0.3 INCH)	18.8	27,105	9,893,211	\$ 19,786
(0.4 INCH)	33.5	48,186	17,587,930	\$ 35,175

Above based on 60PSI and \$2 per 1000 gallons pumping cost. If leak is escaping into a sanitary main, these costs will more than double. (Numbers will vary slightly due to rounding).

GERMANTOWN WATER UTILITY SERVICE AREA



TREATED WATER QUALITY

Listed on the following pages are contaminates detected in Germantown’s drinking water during 2018

The state allows the GWU to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data though representative, are more than one year old.

HOW TO READ THE ANNUAL GERMANTOWN WATER QUALITY TABLE

- 1 Read the definitions on the back page to better understand this table.
- 2 Choose a “contaminant” on the table.
- 3 Check the “ideal Goal” (Maximum Contaminant Level Goal) for that substance.
- 4 Note the “Highest Level Allowed” (Maximum Contaminant Level).
- 5 Compare the contaminant “Level Detected” in Germantown’s water supply to the Ideal Goal and the Highest Level Allowed

Annual Germantown Water Quality Report

DISINFECTION BYPRODUCTS

CONTAMINANT (Units)	SITE	MCL (Highest Level Allowed)	MCLG (Ideal Goals)	LEVEL FOUND	RANGE	SAMPLE DATE (If prior to ‘18)	VIOLATION	TYPICAL SOURCE OF CONTAMINANT
HAA5 (ppb)	D-14	60	60	2	2		NO	By-product of drinking water chlorination
TTHM (ppb)	D-14	80	0	8.0	8.0		NO	By-product of drinking water chlorination
HAA5 (ppb)	D-16	60	60	3	3		NO	By-product of drinking water chlorination
TTHM (ppb)	D-16	80	0	3.5	3.5		NO	By-product of drinking water chlorination

INORGANIC CONTAMINANTS

CONTAMINANT (Units)	SITE	MCL (Highest Level Allowed)	MCLG (Ideal Goals)	LEVEL FOUND	RANGE	SAMPLE DATE (If prior to ‘18)	VIOLATION	TYPICAL SOURCE OF CONTAMINANT
Antimony Total (ppb)		6	6	0.1	0.0 - 0.1		NO	Discharge from petroleum refineries; fire retardants; cermics; electronics; solder
Arsenic (ppb)		10	n/a	1	0 - 1		NO	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)		2	2	0.120	0.011-0.120		NO	Discharge fof drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Cadmium (ppb)		5	5	0.1	0.0 - 0.1		NO	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries and paints
Fluoride (ppm)		4	4	0.7	0.4 - 0.7		NO	Erosion of natural deposits; Water additives which promotes stong teeth; Discharge from fertilizer and aluminum factories
Nickel (ppb)		100		14.0000	1.1000 - 14.0000		NO	Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products
Nitrate (N03-N) (ppm)		10	10	0.93	0.00 - 0.93		NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (ppm)		n/a	n/a	36.00	7.00 - 36.00		NO	n/a

CONTAMINANT (Units)	ACTION Level	MCLG	90th PERCENTILE LEVEL FOUND	# OF RESULT	SAMPLE DATE (If prior to ‘18)	VIOLATION	TYPICAL SOURCE OF CONTAMINANT
Copper (ppm)	AL=1.3	1.3	0.4000	0 of 30 were above the action level		NO	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	AL=15	0	1.60	1 of 30 were above the action level		NO	Corrosion of household plumbing systems; Erosion of natural deposits;

RADIOACTIVE CONTAMINANTS

CONTAMINANT (Units)	MCL (Highest Level Allowed)	MCLG (Ideal Goals)	LEVEL FOUND	RANGE	SAMPLE DATE (If prior to ‘18)	VIOLATION	TYPICAL SOURCE OF CONTAMINANT
Gross Alpha,Excl. R&U(pCi/l)	15	0	5.5	4.6-5.5		NO	Erosion of natural deposits
Radium, (226+228) (pCi/l)	5	0	4.5	0.0-4.5		NO	Erosion of natural deposits
Gross Alpha,Incl. R&U(n/a)	n/a	n/a	5.5	4.6-5.5		NO	Erosion of natural deposits