City of Vermilion 2018

Drinking Water Consumer Confidence Report

"Your drinking water has met all of the Ohio EPA Standards".

The Vermilion Water Dept. has prepared the following report to provide you, the consumer, information on the quality of our drinking water. Included within this report is general health information, water quality test results and information on how you can participate in decisions concerning your drinking water. This report is also available online at: https://www.cityofvermilion.com/departments--services/utilities-department/

Water Source

The Vermilion Water Plant draws its drinking water from Lake Erie. If necessary, we can draw water from the Vermilion River. Also, we have emergency connections with the City of Lorain Water Dept. and the Erie County Water Dept. These connections are used for emergencies and planned maintenance. In 2018 we used these connections for about 15 days and received approximately 18 million gallons of water from them. This report does not contain information on the water quality received from Lorain Water Dept. and the Erie County Water Dept., but a copy of their consumer confidence report can be obtained by going to:

Lorain Water Dept. website: cityoflorain.org
Erie County Water Dept. website: eriecounty.oh.gov

Water Source Assesment Susceptibility Analysis

The Ohio EPA performed a risk assessment of our water source. For the purposes of source water assessments, all surface waters are susceptible to contamination. By their nature surface waters are accessible and can be readily contaminated by chemicals and pathogens with relatively short travel times from source to intake. The source water assessment for the City of Vermilion Public Water System indicates that the Lake Erie source water is susceptible to potential future contamination. Based on information compiled for this assessment, the City of Vermilion Public Water System drinking water protection area is susceptible to contamination from municipal wastewater treatment discharges, industrial waste water discharges, air contamination deposition, runoff from residential and urban areas, contaminated river sediments, and accidental releases and spills from vehicular traffic as well as from commercial shipping operations and recreational boating. For more detailed information or to obtain a copy of this report call:

Water Plant Superintendent Eugene Baker at: office: 440-204-2450 Cell: 440-320-4490

What Are Sources of Contamination to Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and 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: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses; (D) 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; (E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the amount of certain

contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 Federal Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

Who Needs To Take Special Precautions?

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 infection. 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 by calling:

Safe Drinking Water Hotline (1-800-426-4791)

About Your Drinking Water

The EPA requires regular sampling to ensure drinking water safety. During 2018 the City of Vermilion Water Dept. collected over 200 samples and tested for over 50 different contaminants of which most were not detected. The Ohio EPA requires us 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 accurate, may be more than one year old.

2018 Monitoring & Reporting Violations & Enforcement Actions and Drinking Water Notices

What happened?

In an April 11, 2018 letter, Ohio EPA required Vermilion City to replace the tower stem and expansion joint by September 23, 2018. This work was not completed within the required timeframe. An inspection report detailing the results of the clearwell #1 and #2 inspection was not submitted as required by October 31, 2018. This report was submitted on November 1, 2018.

Also, In January the City of Vermilion Water Dept. failed to collect raw water samples for Cryptosporidium, E. coli, and Turbidity.

What is being done?

We have replaced the Tower Stem and the Expansion Joint and we have submitted a report detailing the results of the inspection of clearwells #1 and #2 to the Ohio EPA.

The missed January samples were rescheduled and collected as required.

What should I do?

You do not need to boil the water or take other corrective actions regarding these violations.

What does this mean?

This situation does not require that you take immediate action. If it had been, you would have been notified immediately. Adequate quantities of safe drinking water are necessary for maintaining public health protection.

For more information regarding these violations contact:

Water Plant Superintendent Eugene Baker at: office: 440-204-2450 Cell: 440-320-4490

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 Vermilion Water plant 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 at 800-426-4791or at http://www.epa.gov/safewater/lead**.

How Do I Participate In Decisions Concerning My Drinking Water?

Public participation and comments are encouraged at meetings of the Vermilion City Council which meets on the 1st and 3rd Monday of the month at **7:00** p.m.

Council meets at**: 685 Decatur Street, Vermilion, Ohio 44089.** For more info contact:

Water Plant Superintendent Eugene Baker at: office: 440-204-2450 Cell: 440-320-4490

Listed Below Is Information On Those Contaminants That Were Found In The City Of Vermilion Drinking Water in 2018.

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Microbial Contaminants							
Turbidity (NTU)	NA	TT	0.31	0.04-0.31	No	2018	Soil Runoff
Turbidity (% meeting the 0.3 Std)	NA	TT	100	100	No	2018	Soil Runoff
Total Organic Carbon (Compliance Value)	NA	TT	1.33	1.33-2.56	No	2018	Naturally present in the environment
Inorganic Contaminants							
Fluoride (mg/L)	4	4	1.07	0.80-1.30	No	2018	Erosion of natural deposits; Water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Barium (mg/L)	2	2	0.019	0.019	No	2018	Discharge of drilling waste; Discharge from metal refineries; Erosion of natural deposits
Nitrate (mg/L)	10	10	1.19	<0.10-1.19	No	2018	Runoff from fertilizer; leaching from septic tanks; sewage; erosion of natural deposits
Residual Disinfectants							
Total Chlorine (mg/L)	MRDL=4	MRDLG=4	1.80	1.10-1.80	No	2018	Water additive used to control microbes
Disinfection Byproducts							
Total THM's (ug/L)	0	80	65.0	18.7 – 85.6	No	2018	By-product of drinking water chlorination
HAA5's (ug/L)	0	60	30.03	8.2 – 36.7	No	2018	By-product of drinking water chlorination
Synthetic Organic Chemicals							
Atrazine (ug/L)	3	3	0-.085	0 - .085	No	2018	Runoff from herbicide used on row crops
Lead and Copper							
Contaminant (units)	**Action Level (AL)**	**Individual results over the AL**	**90% of the test levels were below**	**Range**	**Violation**		
Lead (ug/L)	15	0	3.42	ND-14	No	2018	Corrosion of household plumbing systems; Erosion of natural deposits
	0 out of 31 Lead samples were found to have a lead level in excess of the lead action level of 15 ug/L.						
Copper (mg/L)	1.3	0	0.081	<0.010-0.150	No	2018	Corrosion of household plumbing systems; Erosion of natural deposits
	0 out of 31 Copper samples were found to have a copper level in excess of the copper action level of 1.3 mg/L.						

Definitions Of Terms Used In This Report

Turbidity

Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the daily samples and shall not exceed 1 NTU at any time. As reported above, the Vermilion Water Plant's highest recorded turbidity result for 2018 was 0.31 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100%. All samples were under the Ohio EPA limit for turbidity.

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 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): The level of 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.

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

The "<" symbol: A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.

Parts per Million (ppm) or Milligrams per Liter (mg/L): are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

Parts per Billion (ppb) or Micrograms per Liter (ug/L): are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

Cryptosporidium Information.

The City of Vermilion Water Dept. monitored for Cryptosporidium in the source water from September 2016 until November 2018. Cryptosporidium was detected in two of the raw water samples. A total of 24 raw water

samples collected for Cryptosporidium. Cryptosporidiu is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring of source water indicated the presence of these organisms. Current test methods do not enable us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing a life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water. Of the samples collected in 2018, 1 sample collected in May of 2018 contained 1 spore. For more info contact:

Water Plant Superintendent Eugene Baker at: office: 440-204-2450 Cell: 440-320-4490

In 2018 The Vermilion Water Dept. had a conditioned license to operate our public water system. The conditions require us to address ongoing violations. For more information on these violations, contact:

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