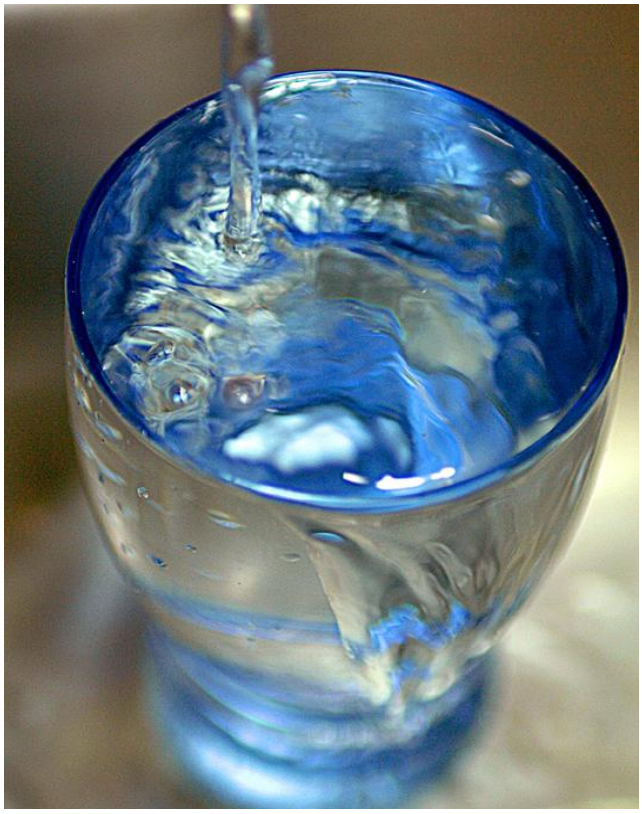
You can contact us by calling
(605) 677-7079 or write us at
25 Center Street
Vermillion SD 57069

City of Vermillion

2014 Drinking Water Report

It's your tap water!



EPA ID: 0342

Water Quality

Last year, the City of Vermillion monitored your drinking water for possible contaminants. This brochure is a snapshot of the quality of the water that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information because informed customers are our best allies.

Water Source

We serve more than 10,571 customers an average of 1,175,000 gallons of water per day. Our water is groundwater that we produce from local wells. The state has performed an assessment of our source water and they have determined that the relative susceptibility rating for the Vermillion public water supply system is low.

For more information about your water and information on opportunities to participate in public meetings, call (605) 677-7079 and ask for Randy Isaacson.

Additional Information

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 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, urban stormwater runoff, and residential uses.

- *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.

- *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, EPA 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 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 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 can be obtained by calling the Environment Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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 Vermillion public water supply system 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*.

Detected Contaminants

The attached table lists all the drinking water contaminants that we detected during the 2014 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, 2014 The state requires 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. Some of the data, though representative of the water quality, is more than one year old.

City of Vermillion participated in EPA's UCMR3 sampling program in 2014 and this report is being used as a public notice. Any detected unregulated contaminants have been included in this report.

2014 Table of Detected Contaminants For Vermillion (EPA ID 0342)

Terms and abbreviations used in this table:

** 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.*

** Action Level(AL): the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow. For Lead and Copper, 90% of the samples must be below the AL.*

** Treatment Technique(TT): A required process intended to reduce the level of a contaminant in drinking water. For turbidity, 95% of samples must be less than 0.3 NTU*

Units:

**MFL: million fibers per liter*
**mrem/year: millirems per year(a measure of radiation absorbed by the body)*
**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*
**ppq: parts per quadrillion, or picograms per liter*
**pspm: positive samples per month*

Substance	90% Level	Test Sites > Action Level	Date Tested	Highest Level Allowed (AL)	Ideal Goal	Units	Major Source of Contaminant
Copper	0.0	0	06/12/12	AL=1.3	0	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	2	0	06/12/12	AL=15	0	ppb	Corrosion of household plumbing systems; erosion of natural deposits.

Substance	Highest Level Detected	Range	Date Tested	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Units	Major Source of Contaminant
Alpha emitters	1	ND - 1	11/01/12	15	0	pCi/l	Erosion of natural deposits.
Arsenic	2		11/09/11	10	NA	ppb	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Barium	0.007		11/01/12	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Chromium	1.3		11/01/12	100	100	ppb	Discharge from steel and pulp mills; erosion of natural deposits.
Fluoride	1.64	1.05 - 1.64	12/22/14	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Haloacetic Acids	2.92	2.37 - 2.92	09/02/14	60	0	ppb	By-product of drinking water chlorination.
Nitrate (as Nitrogen)	1.2		03/24/14	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Selenium	0.9		11/01/12	50	50	ppb	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Total Coliform Bacteria	1	positive samples		5%	0	pspm	Naturally present in the environment.
Total trihalomethanes	18.6	18.4 - 18.6	09/02/14	80	0	ppb	By-product of drinking water chlorination.

Please direct questions regarding this information to Mr. Randy Isaacson with the Vermillion public water system at (605) 677-7079.

2014 Table of Detected Unregulated Contaminants for Vermillion (EPA ID 0342)

The U.S. Environmental Protection Agency (EPA) is required to test for possible contaminants in your drinking water every five years. These contaminants are not regulated and acceptable levels have not been set by EPA. As a means of informing the public, the detected levels of these unregulated contaminants are listed below.

Units:

**ppt: parts per trillion, or nanograms per liter*
**MFL: million fibers per liter*
**mrem/year: millirems per year(a measure of radiation absorbed by the body)*
**NTU: Nephelometric Turbidity Units*
**ppq: parts per quadrillion, or picograms per liter*
**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)*

Substance	Level Detected	Units	Date Tested	Range
Chromium (total)	0.800	ug/L	07/29/2014	0.500-0.800
Strontium	1260.0	ug/L	07/29/2014	1130.0-1260.0
Chromium-6	0.395	ug/L	07/29/2014	0.355-0.395
Molybdenum	5.500	ug/L	07/29/2014	5.200-5.500
Vanadium	0.300	ug/L	07/29/2014	0.000-0.300

For more information on the unregulated contaminants, go to: http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr3/ or contact the Safe Drinking Water Hotline at (800) 426-4791, or at: http://water.epa.gov/drink/contact.cfm.