

Drinking Water Quality Report For 2016

CITY OF WASHBURN, ND

This report is generated in response to a regulation implemented by the Environmental Protection Agency (EPA). The regulation mandates that each community water system in the United States prepares, on an annual basis, a report that provides its customers with information regarding the quality of the water distributed to its consumers.

This report covers the calendar year 2016. Our water source is surface water from the Missouri River.

The City of Washburn monitors for contaminants in your drinking water according to Federal and State laws.

The City is aware that contaminants can enter the source water by various means. Our water system is classified as **MODERATELY SUSCEPTIBLE**. Historically, Washburn has effectively treated the source water to meet drinking water standards. A **Source Water Assessment Program** report is available for review by contacting Water Systems Superintendent Adam Thomas, 462-8558, during regular business hours.

Lead: Infants and young children are typically more vulnerable to lead in drinking water than the general population. 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. 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 Washburn is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. **Use water from the cold tap for drinking and cooking. 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 drinking 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 (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

EPA requires monitoring of over 80 drinking water contaminants. Since our system is allowed to monitor for regulated contaminants less than once a year, the table shows the results from the most recent testing done in accordance with the regulations.

The City of Washburn is pleased to report that your drinking water meets or exceeds Federal and State requirements.

We have learned through our monitoring and testing that some contaminants have been detected. The EPA has determined that your water is safe at these levels.

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).

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/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap 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:

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 storm water, industrial or domestic wastewater discharges, oil production, mining or farming.

Pesticides and herbicides which come from a variety of sources such as agriculture, urban storm water 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 storm water 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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The City of Washburn had no violations of the Safe Drinking Water Act in 2016.

If you would like additional copies of this report, they are available at the City Directors office during normal business hours. Multiple water users, such as apartment complexes and trailer courts, are encouraged to share this information with their tenants.

If you have any questions, concerns, or would like additional information, you can contact the Washburn City Director at 462-8558 between 8:00 a.m. and 4:30 p.m. Monday through Friday. Those wishing to participate in discussions concerning the quality of our water can be scheduled to appear at City Commission meetings by contacting the City Director at the above number. Regular Commission meetings are at 6:30 p.m. once per month. Contact the City Director for meeting dates.

Non-English speaking customers should contact the City for a translated copy of this report. Customers with vision impairment can request a large print copy of this report.

Ppm - part per million , **Ppb** - part per billion , **MG/L** – milligrams per liter , **pCi/L** - picocuries per liter , **NTU** - nephelometric turbidity unit , **AL** - action level , **TT** - treatment technique , **MCL** - maximum contaminant level , **MCLG** - maximum contaminant level goal , **n/a** - not applicable , **MRDL** - maximum residual disinfectant level , **MRDLG** - maximum residual disinfectant level goal , **L/mg-m** - liters per milligram-meter, **Umho/cm** - micromhos per centimeter (a measure of conductivity), **obsvns** - observations/field at 100 Power, **IDSE** - Initial Distribution System Evaluation

CITY OF WASHBURN CHEMICAL/RADIOLOGICAL ANALYSIS

<u>Lead/Copper</u>	Date	# Samples	Action Level	9th Percentile	Samples Exceed AL	Units
Copper 9th Percentile	12/20/2016	20	1.3	0.137	0	ppm
Lead 90th Percentile	12/20/2016	20	15	8.86	2	ppb

* Lead and Copper in drinking water originates from corrosion of household plumbing systems; Erosion of natural deposits

* Required action is taken if more than 10 percent of the samples have exceeded the AL. The City water sampling meets the requirements of 90 percent.

	Violation?	Date	MCL	MCLG	Level Detected	Units	Major Sources in Water
<u>Inorganic Contaminates</u>							
BARIUM	No	3/9/2016	2	2	0.0461	ppm	Discharge of drilling waste and from metal refineries; Erosion of natural deposits
FLOURIDE	No	3/9/2016	4	4	1.07	ppm	Erosion of natural deposits; discharge from fertilizer and aluminum factories; Additive which promotes strong teeth
NITRATE-NITRITE	No	5/24/2016	10	10	0.14	ppm	Runoff from fertilizer; Leaching from septic tanks, sewage; Erosion of natural deposits.
SELENIUM	No	3/9/2016	50	50	1.03	ppb	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
<u>Disinfectants</u>							
CHLORAMINE	No	12/2016	MRDL=4.0	MRDL=4	1.8	ppm	Water additive used to control microbes. Range of detection: 1.81 to 2.87
CHLORINE	No	4/30/2016	MRDL=4.0	MRDL=4	1.1	ppm	Water additive used to control microbes. Range of detection: 1.1 to 1.285
<u>Unregulated Contaminants</u>							
BICARBONATE AS HCO3	n/a	4/25/2016	n/a	n/a	200	ppm	Range of detection: 196-200
CALCIUM	n/a	3/9/2016	n/a	n/a	53	ppm	
CHLORIDE	n/a	3/9/2016	n/a	n/a	17.4	ppm	
CONDUCTIVITY @ 25 C UMHOS/CM	n/a	3/9/2016	n/a	n/a	763	umho	
HARDNESS, TOTAL (AS CaCO3)	n/a	3/9/2016	n/a	n/a	231	ppm	
MAGNESIUM	n/a	3/9/2016	n/a	n/a	24	ppm	
NICKEL	n/a	3/9/2016	n/a	n/a	0.00238	ppm	
PH	n/a	3/9/2016	n/a	n/a	8.15	PH	
POTASSIUM	n/a	3/9/2016	n/a	n/a	4.4	ppm	
SODIUM	n/a	3/9/2016	n/a	n/a	74.1	ppm	
SODIUM ADSORPTION RATIO	n/a	3/9/2016	n/a	n/a	2.12	obsvns	
TDS	n/a	3/9/2016	n/a	n/a	480	ppm	
ZINC	n/a	3/9/2016	n/a	n/a	0.00219	ppm	
<u>Total Organic Carbon</u>							
ALKALINITY - Source	n/a	3/9/2016	n/a	n/a	161	MG/L	
CARBON, TOTAL ORGANIC (TOC) - Finished	n/a	4/30/2016	n/a	n/a	2.62	MG/L	Naturally present in the environment
CARBON, TOTAL ORGANIC (TOC) - Source	n/a	4/30/2016	n/a	n/a	3.41	MG/L	Naturally present in the environment

	Violation?	Date	MCL	MCLG	Level Detected	Units	Major Sources in Water
<u>Stage 2 Disinfecton Byproducts</u>							
HAA5	No	3/31/2016	60	--	22	ppb	By-product of drinking water disinfection. Range of detection: 17.66 to 23.48
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TTHM	No	3/31/2016	80	--	62	ppb	By-product of drinking water disinfection. Range of detection: 34.27 to 41.4

Surface Water Treatment Rule Monitoring Data

Turbidity	No		--	--	0.08	NTU	Soil Runoff
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Lowest monthly percentage of samples meeting turbidity limits = 100%

* Turbidity is a measure of cloudiness of the water and is a good indicator of the effectiveness of our filtration system. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.