

Annual Drinking Water Quality Report

City of Deer Lodge
PWSID MT0000197
300 Main St
Deer Lodge, MT 59722

We're very pleased to provide you with the annual Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water. Our water source is from two groundwater wells completed in the ancient Clark Fork alluvial aquifer. We have a source water protection plan available from our office that provides more information such as potential sources of contamination. We are pleased to report that our drinking water is safe and meets federal and state requirements. This report shows our water quality and what it means.

If you have any questions about this report or concerning your water utility, please contact Trent Freeman, Public Works Superintendent for the City of Deer Lodge, at (406)846-2238. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the first and third Monday of every month at 6:00 PM at the City Hall or the Powell County Community Center.

We routinely monitor for constituents in your drinking water according to Federal and State laws. The following table shows the results of any detects in our monitoring for the period of **January 1st to December 31st, 2023**. For constituents that are not monitored yearly, we have reviewed our records back to the last time the constituent was monitored.

Parameter	Date	90th % value	Units	Action Level	#Sites Over AL	Source of Contamination
Lead	2023	ND	ppb	15	0	Household plumbing
Copper	2023	0.23	ppm	1.3	0	Household plumbing

In the tables above and below 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:

Parts per billion (ppb) or Micrograms per liter (ug/l) - one part per billion corresponds to one minute in 2000 years or a single penny in \$10,000,000.

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.

Action Level - the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

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

Maximum Contaminant Level - 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 - 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.

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

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.

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 and/or why total coliform bacteria have been found in our water system on multiple occasions.

TEST RESULTS

Contaminant	Violation Y/N	Sample Date	Highest Level Detected	Range of Levels Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants								
Nitrate + Nitrite as N	N	2023	0.67	0.35-0.67	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Fluoride	N	09/12/22	0.9	0.4-0.9	ppm	4.0	4.0	Erosion of natural deposits.
Arsenic	N	09/12/22	9	3-9	ppb	0	10	Erosion of natural deposits.
Barium	N	09/12/22	0.09	0.05-0.09	ppm	2	2	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
Radioactive Contaminants								
Uranium	N	09/12/22	8.8	4-9	ppb	0	30	Erosion of natural deposits.
Gross Alpha excluding radon and uranium	N	09/12/22	5.7	0-5.7	pCi/L	0	15	Erosion of natural deposits
Combined Radium 226/228	N	9/12/22	1	0-1	pCi/L	0	5	Erosion of natural deposits.
Microbial Contaminants								
Parameter	Violation Y/N	Date	Highest number of positive samples in one month	Unit Measurement	MCL G	MCL	Likely Source of Contamination	
Coliform Bacteria	N	Monthly	0	Present/Absent	0	1	Naturally present in environment	

Nitrates- As a precaution we always notify physicians and health care providers in this area if there is ever a higher than normal level of nitrates in the water supply. Infants below the age of six months who drink water containing nitrate and nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

Fluoride- Some people who drink water that contains Fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL of more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.

Arsenic- 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 costs 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.

Barium: Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.

Uranium-Some people who drink water containing uranium in excess of the MCL over many years have increased risk of getting cancer and kidney toxicity.

Alpha Emitters-Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Combined Radium: Some people who drink water containing radium 226 and 228 in excess of the MCL over many years may have an increased risk of getting cancer.

Copper - Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water that contains copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Lead - Infants and children who drink water that contains 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 Deer Lodge 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 the 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>.

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or are man-made. 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 1-800-426-4791.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791). We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

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