



Annual Drinking Water Quality Report



Town of Darby MT0000195

Annual Water Quality Report for the period of January 1 to December 31, 2023

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

For more information regarding this report please contact *Nancy McKinney* at (406) 821-3753.

Public Participation Opportunities: *Council meetings 2nd and 4th Tuesday of each of month at the Town Hall, 101 East Tanner Avenue.*

Sources of 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 human activity.

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 at (800) 426-4791.

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 that limit the number 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.

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 healthcare providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the 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. We are responsible for providing high-quality drinking water, but we 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 are available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Source Water Information for Town of Darby

which is classified as a *Ground Water* system

The source water assessment report for your water system provides additional information on your source water's susceptibility to contamination. To access this report please go to:

<https://deq.mt.gov/water/Programs/dw-sourcewater>

On the webpage look under "4. Make Results of the Delineation and Assessment Available to the Public" and then click on the grey box called "Review Source Water Assessment Reports".

Town of Darby utilizes the listed water sources below:

Water Source Name	Water Source Type
WELL 2 GWIC 50709	Well
WELL 5 GWIC 185827	Well
WELL 6 GWIC 252042	Well

Water Quality Test Results Definitions

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow. **Avg:** Regulatory compliance with some MCLs is based on running an annual average of monthly samples. **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. **Maximum Contaminant Level or 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 Contaminant Level Goal or 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 residual disinfectant level or MRDL:** The highest level of disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for the control of microbial contaminants. **Maximum residual disinfectant level goal or MRDLG:** The level of a 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. **N/A:** Not applicable. **ND:** Not detectable at testing limit. **Nephelometric Turbidity Unit (NTU)** – Measure of the clarity or cloudiness of water. Turbidity more than 5 NTU is just noticeable to the typical person. **Picocuries per liter (pCi/L)** – Measure of the radioactivity in water. **ppb:** micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water. **ppm:** milligrams per liter or parts per million - or one ounce in 7,350 gallons of water. **Secondary Maximum Contaminant Level (SMCL):** SMCLs are established as guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color, and odor. These contaminants are not considered to present a risk to human health at the SMCL. **Treatment Technique or TT:** A required process intended to reduce the level of a contaminant in drinking water.

The State of Montana DEQ 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, or the system is not considered vulnerable to this type of contamination. Therefore, some of our data, though representative, may be more than one-year-old.

Lead and Copper								
Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	08-10-2021	1.3	1.3	1.11	0	ppm	Y	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	08-10-2021	0	15	2	1	ppb	Y	Corrosion of household plumbing systems; Erosion of natural deposits.
Regulated Contaminants								
Contaminant Group: Disinfectants and Disinfection By-Products								

Regulated Contaminants	Collection Year	Highest Level Detected	Range of Levels	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2023	0.50	.31 - .8	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Total Trihalomethanes (TTHM)	2023	3	2.6 - 2.6	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

Contaminant Group: Inorganic Contaminants

Regulated Contaminants	Collection Year	Highest Level Detected	Range of Levels	MCLG	MCL	Units	Violation	Likely Source of Contamination
Fluoride	2022	0.10	.1 - .1	4	4	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2023	1	1.3 - 1.3	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Contaminant Group: Radioactive Contaminants

Regulated Contaminants	Collection Year	Highest Level Detected	Range of Levels	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	2022	0.90	.9 - .9	0	5	pCi/L	N	Erosion of natural deposits.

Violations

Violation for Montana State Chlorine Rule

Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Violation Type	Violation Period	Resolution Date	Violation Explanation
STATE CHLORINE MONITORING DAILY	12/01/2023 to 12/31/2023	OPEN	We took the tests on time, there was a computer glitch and a blank page was submitted to DEQ. When contacted, the page filled out was resubmitted. Will work closer on computer worksheet reports.

Violation for Revised Total Coliform Rule (RTCR)

The Revised Total Coliform Rule (RTCR) seeks to prevent waterborne diseases caused by E. coli. E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.

Violation Type	Violation Period	Resolution Date	Violation Explanation
MONITORING, ROUTINE, MAJOR (RTCR)	05/01/2023 to 05/31/2023	05-22-2023	We submitted the report to the lab on time. There was a typo when sent to DEQ on time and was lost on their computer system, when contacted made calls to lab and DEQ. DEQ found the report, but we still got a violation. We will work closer with lab and DEQ to prevent this from happening again.