



# Annual Drinking Water Quality Report



## The Benches MT0005069

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 Tina Malkuch at 406 253 5301.

Public Participation Opportunities: We want you to be informed about your water system. If you want to learn more, please attend your annual meeting, which is announced by letter, email and in your water bill each year.

### 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 from 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 The Benches**  
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".

The Benches utilizes the listed water sources below:

Water Source Name	Water Source Type
WELL 2 SOUTH GWIC 305019	Well
WELL 1 NORTH GWIC 304934	Well

There are 49 lots in The Benches Phase 1 and 2. Approximately 38 of those lots have homes or are under construction of a home. The Benches service these site with two wells. Well-1 (WL002) GWIC log #30494 furthest from the water pump house, utilizes a 20 hp submersible pump, drilled January 30, 2020, screened-intake type well with a 12" borehole to 35 feet (bgs), 8" borehole to 227 feet (bgs), welded steel pipe. Static water level of 51 ft below ground surface. Well yielded 300 gpm and recovered in 1 hour. Well-2 (WL002) GWIC lot # 305519 closest to the water pump house, utilizes a 20 hp submersible pump, drilled February 6th 2020, screened-intake type well with 12" borehole to 35 feet (bgs), 8" borehole to 245 feet (bgs), welded steel pipe. Static water level of 51 feet below ground surface. Well yielded 450 gpm and recover in 1 hour. Water system is controlled by VFDs, maintain a system pressure of 55-65 psi, also using 4 captive air tanks, pressure relief valve and control assembly flushing line to the exterior of the water pump house.

The distribution system is of 4" C900 DR18 PVC pipe and 4" SDR IPS HDPE pipe with 48~1" service connections. There are 3 kuperle Mainguard flushing hydrants and one 6" fire hydrant for fire protection.

## 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	2023	1.3	1.3	0.04	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2023	0	15	1	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

## Regulated Contaminants

### Contaminant Group: Inorganic Contaminants

Regulated Contaminants	Collection Year	Highest Level Detected	Range of Levels	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2023	0.34	.34 - .34	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2023	0.25	.25 - .25	4	4	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.

### 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	2023	1.1	ND - 1.1	0	5	pCi/L	N	Erosion of natural deposits.
Uranium	2023	2.3	1.6 - 2.3	0	30	ppb	N	Erosion of natural deposits.

### Contaminant Group: Volatile Organic Contaminants

Regulated Contaminants	Collection Year	Highest Level Detected	Range of Levels	MCLG	MCL	Units	Violation	Likely Source of Contamination
Toluene	2023	0.00052	.00052 - .00052	1	1	ppm	N	Discharge from petroleum factories.

## Secondary Contaminants

Secondary Contaminant	Collection Year	Highest Level Detected	Range of Levels	SMCL	Units	Likely Source of Contamination and or Reason for Monitoring
CHLORIDE	2023	0.8	.8 - .8	250	ppm	Likely Source of Contamination and/or Reason for Monitoring Residue from water treatment process: erosion of natural deposits
IRON	2023	790	790 - 790	300	ppb	Naturally occurring, corrosion of cast iron pipes
MANGANESE	2023	11	11 - 11	50	ppb	Natural sources as well as discharges from industrial uses

Water may naturally have manganese and, when concentrations are greater than 50 ppb, the water may be discolored and taste bad. Over a lifetime, the EPA recommends that people drink water with manganese levels less than 300 ppb and over the short term, EPA recommends that people limit their consumption of water with levels over 1000 ppb, primarily due to concerns about possible neurological effects. Children younger than one year old should not be given water with manganese concentrations over 300 ppb, nor should formula for infants be made with that water for more than a total of 10 days throughout the year.

PH	2023	7.83	7.83 - 7.83	6.5-8.5	Standard Unit	Runoff and leaching from natural deposits; seawater influence
SULFATE	2023	4.8	4.8 - 4.8	250	ppm	Runoff and leaching from natural deposits; industrial wastes

**Your water system meets or exceeds all established state and federal standards**

**Safewater Testing  
Simplified, Inc.**

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