

Annual Drinking Water Quality Report 2023

Town of Mount Jackson PWSID #2171575

INTRODUCTION

This Annual Drinking Water Quality Report for calendar year 2023 is designed to provide you with valuable information about your drinking water quality. We are committed to providing you with a safe and dependable supply of drinking water, and we want you to understand the efforts we make to protect your water supply. The quality of your drinking water meets all state and federal requirements administered by the Virginia Department of Health (VDH).

If you have questions about this report, want additional information about any aspect of your drinking water, or want to know how to participate in decisions that may affect the quality of your drinking water, please contact:

Mr. Joey Blankenship, Director of Utilities, Town of Mount Jackson at 540-477-3225

You can obtain additional information by attending Town Council meetings held at 7:00 p.m. the second Tuesday of each month in the Town Council Chambers.

GENERAL INFORMATION

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. Substances (referred to as contaminants) in source water may come from septic systems, discharges from domestic or industrial wastewater treatment facilities, agricultural and farming activities, urban storm water runoff, residential uses, and many other types of activities. Water from surface sources is treated to make it drinkable while groundwater may or may not have any treatment.

All drinking water, including bottled drinking 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. Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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 microbes and other contaminants are available from the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

SOURCES AND TREATMENT OF YOUR DRINKING WATER

Your drinking water is groundwater and obtained from five drilled wells. Water is distributed throughout the town by means of submersible well pumps, three storage tanks, and variously sized distribution pipes.

All water entering the Town distribution system is treated. Each well is equipped with a chlorine solution feeder. The solution feeder is used to inject a chlorine solution into the water to disinfect it prior to distribution. The treatment system is also equipped with a nitrate removal and filtration facility.

SOURCE WATER ASSESSMENT

A source water assessment was completed by VDH. The assessment determined that the wells serving our community may be susceptible to contamination because they are located in an area that promotes migration of contaminants from certain land use activities of concern. More specific information may be obtained by contacting the water system representative referenced within this report.

QUALITY OF YOUR DRINKING WATER

Your drinking water is routinely monitored according to Federal and State Regulations for a variety of contaminants. The table on the next page shows the results of our monitoring for the period of January to December 31, 2023. However, the state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old. All reportable data for the water system can be searched in the public database Drinking Water Viewer (DWV) by accessing the portal at <http://www.vdh.virginia.gov/drinking-water/dwv/>.

Maximum Contaminant Levels (MCL's) are set at very stringent levels by the U.S. Environmental Protection Agency. In developing the standards EPA assumes that the average adult drinks 2 liters of water each day throughout a 70-year life span. EPA generally sets MCL's at levels that will result in no adverse health effects for some contaminants or a one-in-ten-thousand to one-in-a-million chance of having the described health effect for other contaminants.

DEFINITIONS

In the table and elsewhere in this report you will find many terms and abbreviations you might not be familiar with. The following definitions are provided to help you better understand these terms:

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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 (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.

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 Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (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 contamination.

Nephelometric Turbidity Unit (NTU) - A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Non-detects (ND): Lab analysis indicates that the contaminant is not present.

Parts per billion (ppb) or Micrograms per liter ($\mu\text{g/L}$): One part per billion corresponds to one minute in 2,000 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.

Picocuries per liter (pCi/L): A measure of the radioactivity in water.

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

Variations and exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

WATER QUALITY RESULTS

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. The tables list only those contaminants that had some level of detection. Many other contaminants have been analyzed but were not present or were below the detection limits of the lab equipment.

Bacteriological Contaminants						
Contaminant	MCLG	MCL	Level Found	Violation	Date of Samples	Typical Source of Contamination
Total Coliform	0	Presence of coliform bacteria in no more than one sample each month	none	No	Monthly 2023	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.
Inorganic Contaminants						
Contaminant / Unit of Measurement	MCLG	MCL	Level Found	Exceedance	Date of Sample	Typical Source of Contamination
Barium ppm	2	2	0.031 to 0.136	No	8/2021 3/2024	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Sodium ppm	-	-	5.94 to 11.2	No	8/2021 3/2024	Erosion of natural deposits; de-icing salt runoff; water softeners
Nitrate ppm	10	10	0.06 to 5.3	No	7/2023	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Radiological Contaminants						
Contaminant / Unit of Measurement	MCLG	MCL	Level Found	Violation	Date of Sample	Typical Source of Contamination
Beta emitters pCi/L	0	50*	0.9 to 2.1	No	5/2020 10/2021 4/2022	Decay of natural and man-made deposits
Alpha emitters pCi/L	0	15	ND to 1.6	No	5/2020 10/2021 4/2022	Erosion of natural deposits
Combined Radium pCi/L	0	5	0.1 to 1.6	No	5/2020 10/2021 4/2022	Erosion of natural deposits
*The MCL for beta particles is 4 mrem/yr. EPA considers 50 pCi/L to be the level of concern for beta particles.						
Lead and Copper						
Contaminant / Unit of Measurement	MCLG	MCL	Level Found / Range	Exceedance	Date of Sample	Typical Source of Contamination
Lead ppb	0	AL=15	9.1 ppb (90 th percentile) None of the ten samples collected exceeded the AL.	No	7/2023	Corrosion of household plumbing systems; Erosion of natural deposits
Copper ppm	1.3	AL=1.3	0.115 ppm (90 th percentile) None of the ten samples collected exceeded the AL.	No	7/2023	Corrosion of household plumbing systems; Erosion of natural deposits
Disinfection By-products						
Contaminant/Unit of Measurement	MCLG	MCL	Level Found	Violation	Date of Sample	Typical Source of Contamination
Total Trihalomethanes (TTHM) ppb	NA	80	ND	No	7/2023	By-product of drinking water chlorination
Haloacetic acids (HAA5) ppb	NA	60	ND	No	7/2023	By-product of drinking water chlorination
Disinfection Residual						
Disinfectant/Unit of Measurement	MRDLG	MRDL	Level Found (Range)	Violation	Date of Sample	Source
Chlorine ppm	4	4	1.12 to 1.79	No	Monthly 2023	Added to water to control microbes.

Elevated Nitrates information

Nitrates in drinking water at levels above 10 ppm are a health risk for infants less than 6 months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should seek advice from your health care provider.

Lead Contaminants

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 Town of Mount Jackson is responsible for providing high quality drinking water, but cannot control the variety of materials used in the 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 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>.

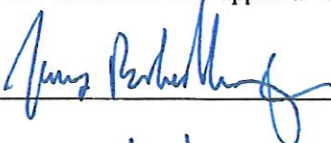
Sodium Information

There is presently no established standard for sodium in drinking water. An EPA advisory recommends water containing 30 to 60 mg/L should not be used as drinking water due to esthetics such as taste and color. Water containing more than 20 mg/L should not be used by persons whose physician has placed them on severely restricted sodium diets.

VIOLATION INFORMATION

We received no violations in the year 2023.

The waterworks owners prepared this Drinking Water Quality Report with the assistance and approval of the Virginia Department of Health (VDH). Please call if you have questions.

Signature: 
Date: 05/07/2024