

ANNUAL WATER QUALITY REPORT

UPPER HALFMOON WATER COMPANY

2021

2021 Annual Water Quality Report

Upper Halfmoon Water Company, Inc.

PWSID 4140109

Este informe contiene informacion muy importante sobre su agua de beber. Traduzcalo o hable con alguien que lo entienda bien. (This report contains very important information about your drinking water. Translate it, or speak to someone who understands it.)

We're pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually assess and protect our important water resources. We are committed to ensuring the quality of your water. Our water source consists of two groundwater wells: Well 5 located on Shanelly Drive and Well 6 located on Towhill Road. Well 6 was brought online in October 2016. Well 5 and Well 6 are each permitted to pump a maximum instantaneous pumping rate of 275 gallons per minute, with a 30 day average total system withdrawal limit of 206,000 gallons per day. We currently switch back and forth between Well 5 and Well 6. An emergency backup well is located on Tom's Lane.

We are pleased to report that our drinking water meets all federal and state water quality requirements.

If you have any questions about this report or concerning your water utility, please contact Rick Day, President of the Upper Halfmoon Water Company (UHWC) at 692-4309. We want our customers to be informed about their water company. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the second Tuesday of each month at 7:00 PM at the Halfmoon Township Municipal Building on Municipal Lane. Due to the Pennsylvania Covid-19, the Monthly meetings will be conducted via Zoom until further notice. Please check our website to find link to Zoom Meetings. (www.upperhalfmoonwater.com)

The UHWC routinely monitors for constituents in your drinking water according to Federal and State laws. Table 1. shows the results of our monitoring for the period of **January 1st to December 31st, 2021**. The table only shows constituent levels that were detected in the water and does not include all potential contaminants for which we monitor. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

In the table 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:

Non-Detects (ND) - laboratory analysis indicates that the contaminant is not present at a detectable level.

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 1,000,000 pennies or \$10,000.

Parts per billion (ppb) or Micrograms per liter (ug/L) - one part per billion corresponds to one minute in 2,000 years, or a single penny in 1,000,000,000 pennies or \$10,000,000.

Parts per trillion (ppt) or Nanograms per liter (ng/L) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in 1,000,000,000,000 pennies or \$10,000,000,000.

Parts per quadrillion (ppq) or Picograms per liter (pg/L) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in 1,000,000,000,000,000 pennies or \$10,000,000,000,000.

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

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

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

Action Level (AL) – (mandatory language) the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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

Maximum Contaminant Level (MCL) - (mandatory language) The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - (mandatory language) 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) - (mandatory language) 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) - (mandatory language) 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.

Table 1. Test results of contaminants detected in water samples collected during 2021.

Contaminant (Unit of Measurement)	Violation Y/N	Level Detected	Range	MCL in CCR units	MCLG	Major Sources in Drinking Water
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Lead and Copper Rule (Test for every 3 years—last tested in 2019)

Lead (ppb)	No	6.0 *	0.0-309 **	15	0	Corrosion of household plumbing.
Copper (ppm)	No	0.075*	.037-.089	1.3	1.3	Corrosion of household plumbing.

*Level detected values are the 90th percentile number.

** A re-test of this location had a 0.0 detect for lead.

Disinfection Byproducts (DBPs), Byproduct Precursors, and Distribution Disinfectant Residual

(Chlorine tested for weekly in Distribution)

Chlorine (ppm) highest	No	1.20	NA	MRDL 4.0	NA	Water additive to control microbes.
Trihalomethanes	No	0.55	NA	MCL 80	NA	By Products of drinking water Chlorination

Synthetic Organic Contaminants (SOC's are tested for every 3 years. Annually with previous detect)

Di (2-ethylhexyl) phthalate (SOC)(ppb) Well 6 (EP104)	No	1.82 (2016) 0 (2017) 0 (2018) 0 (2019) 0 (2020) 0 (2021)	NA	6	0	Discharge from rubber and chemical factories
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Inorganic Contaminants (Nitrate is tested for yearly, Barium is tested for every 9 years—last tested for in 2012)

Nitrate (ppm) Well 5 (EP103)	No	2.28	NA	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Well 6 (EP104)	No	1.66		10	10	
Barium(ppm)	No	0	NA	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.

Radiological Contaminants (Results—Dec 2016 = 0, March 2017 = 1.05, April 2017 =0, July 2017 = 0)

Radium 228 is tested for every 9 years

Radium-228(pCi/l)	No	1.05	NA	5	0	Erosion of natural deposits.
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Entry Point Disinfectant Residual (Monitored daily with continuous analyzer)

Contaminant	Minimum Disinfectant Residual Required	Lowest Level Detected	Range of Detections	Units	Violation Y/N	Source of Contamination
Chlorine (ppm) Well 5 (EP103)	0.40	0.58	0.58 – 1.30	ppm	N	Water additive used to control microbes.
Well 6 (EP104)	0.40	0.70	0.70 – 1.50			

Hardness: The hardness of the water from Well 5 (EP103) is 9.2 grains. Sampled March 2022
The hardness of the water from Well 6 (EP104) is 7.6 grains. Sampled March 2022

As you can see by the table, our system had no water quality issues in 2021.

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 representative, are more than 1 year old.

MCL's are set at very stringent levels for health effects. 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.

Health concerns associated with detected constituents are described below.

Lead. 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 associated with service lines and home plumbing. 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 is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

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

Chlorine. Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.

Trihalomethanes. Some people who drink water containing THMs in excess of the MCL over many years may experience problems with their liver, kidneys or central nervous system, and may have an increased risk of getting cancer.

Di (2-ethylhexyl) phthalate. Some people who drink water containing di (2-ethylhexyl) phthalate in excess of the MCL over many years may have problems with their liver, or experience reproductive difficulties, and may have an increased risk of getting cancer. We have not detected this chemical prior to 2016 and expect it to be a one time occurrence due to the construction of the new well.

Nitrate. Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome. Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six 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 ask advice from your health care provider.

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

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

All sources of drinking water are subject to potential contamination by contaminants that are naturally occurring or 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.

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).

Please call our office (692-4309) if you have questions. The UHWC is committed to providing top quality water to every customer. We ask that all our customers help us protect our water sources.