

## UNIT WELL #12

Drilled in 1957, Unit Well 12 has a pumping capacity of 2270 gallons per minute. It operates year-round and delivers water to Madison's Near West neighborhoods including University Hill Farms, Sunset Village, Midvale Heights, Westmorland, Crawford-Marlborough-Nakoma, Orchard Ridge, Summit Woods, Meadowood, Allied Dunn's Marsh, Arbor Hills and Leopold. In 2021, Well 12 pumped 545 million gallons compared to its 5-year average of 661 million gallons annually.

Unless otherwise noted, data contained in this report, which is updated annually, are from 2021.

### *Bacteria*

In 2021, four quarterly samples were collected from Well 12 and tested for coliform bacteria, an indicator group of bacteria used to determine drinking water safety. Each sample was collected and tested prior to any disinfection. None of these samples had coliform bacteria present. The Water Utility chlorinates drinking water to protect against bacteria and viruses that can be present in groundwater and to provide additional protection as the water travels through water mains and premise plumbing.

### *Hardness and Other Minerals*

Like all groundwater, water from Unit Well 12 contains calcium and magnesium that contributes to its hardness (285 mg/L [ppm] or 17 grains per gallon). Other naturally occurring constituents that are present in water from Well 12 can be found in the [Inorganics Table](#).

### *Iron and Manganese*

Water from Well 12 does not contain significant amounts of iron or manganese. Both minerals are well below the US EPA [secondary standards](#), which are 0.3 mg/L for iron and 50 µg/L for manganese.

### *Chromium*

Low levels of naturally occurring chromium, including hexavalent chromium, have been found at Well 12. The level is well below the existing drinking water standard of 100 µg/L for total chromium. More information can be found on the [chromium](#) page.

### *Lead*

Madison's groundwater supply does not contain significant amounts of naturally occurring lead.

## ***Radionuclides***

In 2020, water from Well 12 was tested for radium-226, radium-228, and other gross measures of radiation in water. Combined radium (226+228) measured 1.3 picocuries per liter (pCi/L) – well below the maximum contaminant level (MCL) of 5 pCi/L.

Naturally occurring, radioactive elements are found in rock, soil, water, and air. They derive from the creation of our planet and enter our bodies when we drink water, breathe air, and eat foods that contain them. Everyone is exposed to some level of radiation in everyday life. For example, uranium and thorium are found in rock and soil. In time, they decay to other elements including radium, which later decays to radon gas. Radon is the largest contributor to our daily exposure of radiation from the natural world. More information is available from the Agency for Toxic Substances and Disease Registry ([ATSDR](#)).

See [ATSDR](#) for more information on radon.

## ***Man-made Contaminants***

Madison Water Utility annually tests all of its wells for man-made contaminants that may be present in groundwater. None of the volatile organic compounds (VOC) tested were detected at Well 12 in 2021.

The [Volatile Organic Compounds](#) table shows the list of substances that were tested, the results, and how the detected levels compare with the maximum contaminant levels (MCL) established by the EPA.

### **Per- and Polyfluoroalkyl Substances (PFAS)**

All Madison wells were tested for PFAS in 2021. No [PFAS](#) were detected in water from Well 12. While there is no state or federal drinking water standard for any PFAS, in 2019 the Wisconsin Department of Health Services recommended a health-based groundwater standard of 20 ppt for two types of PFAS (PFOA & PFAS) and in 2021 the Wisconsin Department of Natural Resources proposed a matching drinking water standard. More information about PFAS in drinking water is found on our website, [madisonwater.org](#).

## ***Additional Information***

Information on routine [water quality monitoring](#) activities, including current test results and links to additional resources, is available at [madisonwater.org](#). In addition, you can sign-up to receive periodic updates on Madison drinking water quality or the water main flushing program through the [City of Madison](#) website.

If you have questions about the information in this report or on our website, our staff would be happy to answer them. Please call the Water Quality line at 266-4654 weekdays from 7:45 a.m. to 4:00 p.m.

Click [here](#) to view water quality reports for other Madison municipal wells.