Quality and Reliability since 1882
Madison Water Utility mwu
www.madisonwater.org • 119 East Olin Avenue • Madison, WI 53713-1431 • TEL 608.266.4651 • FAX 608.266.4426

UNIT WELL #23

Drilled in 1958, Unit Well 23 has a pumping capacity of 1200 gallons per minute. In recent years, it has become a seasonal well generally operating from April through October. Well 23 primarily serves Madison's Eastside neighborhoods including East Buckeye, Rolling Meadows, Elvehjem, and Heritage Heights. In 2013, Well 23 pumped 117 million gallons compared to its 5-year average of 153 million gallons annually.

Unless otherwise noted, data contained in this report, which is updated annually, are from 2013.

Bacteria

In 2013, nineteen samples were collected from Well 23 and tested for coliform bacteria, an indicator group of bacteria used in determining drinking water safety. None of the samples were found to have coliform bacteria present. A majority of the samples (17) were chlorinated water while two samples were untreated groundwater. The Water Utility chlorinates drinking water to protect against bacteria and viruses that can be present in groundwater.

Hardness and Other Minerals

Like all groundwater, water from Well 23 contains calcium and magnesium that contributes to its hardness (488 mg/L [ppm] or 28 grains per gallon). Other naturally occurring constituents that are present in water from Well 23 can be found in the Inorganics Table.

Iron and Manganese

Water from Well 23 contains low levels of iron and an intermediate amount of manganese. At elevated levels these minerals can discolor the water. Water containing iron or manganese above the EPA secondary standards, 0.3 mg/L and 50 µg/L, respectively, may cause staining of laundry or plumbing fixtures.

Chromium

Low levels of naturally occurring chromium, including hexavalent chromium, have been found at Well 23. The level is well below the existing drinking water standard of 100 µg/L for total chromium. The utility performs semi-annual testing for total and hexavalent chromium. More information, including complete test results, can be found on the chromium page.

Lead

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

Sodium

The level of sodium in Well 23 water exceeds the EPA guideline which recommends drinking water not to exceed 20 mg/L sodium. These guidelines are intended for higher risk populations including individuals with high blood pressure or those who may be on severe sodium restricted diets. In 2013, sodium at Well 23 measured 32 mg/L. Road salt application likely contributes to elevated sodium levels at some Madison wells.

Radionuclides

In 2008, water from Well 23 was tested for radium-226, radium-228, and uranium as well as other gross measures of radiation in the water. Combined radium measured 1.6 picocuries per liter (pCi/L) while uranium tested at 0.9 micrograms per liter (µg/L). These levels are below the maximum contaminant level (MCL) of 5 pCi/L combined radium and 30 µg/L uranium.

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 municipal wells for man-made contaminants that may be present in groundwater. Except for disinfection by-products (DBP), no other volatile organic compounds (VOC) was detected at Well 23 in 2013. DBPs form when chlorine interacts with impurities in groundwater. The chlorine is added to disinfect the water and guard against bacterial growth in water mains.

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.

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 7:30 a.m. to 4:00 p.m.

Click here to view water quality reports for other Madison municipal wells.