

UNIT WELL #9

Drilled in 1951, Well 9 has a pumping capacity of 1700 gallons per minute. It operates year-round and provides water to neighborhoods between Monona Dr and Stoughton Rd south of Cottage Grove Rd. The well also serves Madison locations south of Pflaum Rd and between Walter St and Cottage Grove Rd south of the Isthmus Bike Path/Wisconsin Southern railroad tracks. In 2013, Well 9 pumped 468 million gallons of water compared to its 5-year average of 481 million gallons annually.

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

Bacteria

In 2013, fifty-six water samples were collected from Well 9 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. The majority of samples (52) were chlorinated water while four 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 Unit Well 9 contains calcium and magnesium that contributes to its hardness (385 mg/L [ppm] or 23 grains per gallon). Other naturally occurring constituents that are present in water from Well 9 can be found in the [Inorganics Table](#).

Iron, Lead, and Manganese

Water from Well 9 does not contain significant amounts of iron, lead, or manganese.

Chromium

Low levels of naturally occurring chromium, including hexavalent chromium, have been found at Well 9. 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.

Radionuclides

In 2009, water from Well 9 was tested for radium-226, radium-228, and uranium in addition to other gross measures of radiation in the water. Combined radium measured 0.8 picocuries per liter (pCi/L) while uranium tested at 0.5 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. Quarterly samples are currently collected at Well 9 due to the presence of [tetrachloroethylene](#) which has been detected since the early 1990's. The level of tetrachloroethylene peaked at 3.9 µg/L, in 2002, and has steadily decreased since then. In 2013, the level ranged from 1.3-1.6 µg/L. Low levels of 1,4-dioxane and 1,1-dichloroethane were also found during recent investigative sampling by the utility.

Low levels of four disinfection by-products (DBP) were detected at Well 9 in 2013. DBPs form when chlorine reacts with impurities in groundwater. Chlorine is added to disinfect water and to 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.