UNIT WELL #31

Drilled in 2014, Unit Well 31 has a pumping capacity of 2100 gallons per minute. It operates year-round serving Madison’s East and Southeast sides including residential, commercial and industrial properties from the border with the Village of McFarland extending northward to approximately Pflaum Road. In 2019, Well 31 pumped 179 million gallons of water.

Unless otherwise noted, data contained in this report, which is updated annually, are from 2019.

**Bacteria**

In 2019, twenty-eight water samples were collected from Well 31 and tested for coliform bacteria, an indicator group of bacteria used to determine drinking water safety. None of the samples were found to have coliform bacteria present. Most of the samples (24) were chlorinated water while four samples were untreated groundwater. The Water Utility chlorinates tap water to protect against bacteria and viruses that can be present in groundwater.

**Hardness and Other Minerals**

Like all groundwater, water from Well 31 contains calcium and magnesium that contributes to its hardness (325 mg/L [ppm] or 19 grains per gallon). Other naturally occurring constituents that are present in water from Well 31 can be found in the [Inorganics Table](#).

**Iron and Manganese**

Although Well 31 has an intermediate level of iron and manganese in the source water, the facility was constructed with an iron-manganese filter to remove these nuisance chemicals. Daily tests confirm the operation of the filter and monthly split samples are submitted to a certified drinking water laboratory for analysis. Levels of iron and manganese in the filtered water are routinely below the detection limit.

**Lead**

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

**Chromium**

Tests have not found hexavalent chromium at Well 31. Chromium is known to be present in the aquifer; however, it is believed that the chemical environment in the Mt. Simon aquifer inhibits the release of chromium into groundwater. More information is found on the [chromium page](#).
**Radionuclides**

In 2019, water from Well 31 was tested three times for radium-226, radium-228, and other gross measures of radiation. Combined radium (226+228) ranged from 0.9 to 1.9 picocuries per liter (pCi/L) compared to 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 municipal wells for man-made contaminants that may be present in groundwater. Except for the occasional disinfection by-product (DBP) no other volatile organic compound (VOC) tested were found at Well 31 in 2019. 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 lists the 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 2019. None of the thirty PFAS we tested were found at Well 31. Our website, madisonwater.org, has more information about PFAS in drinking water.

**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.