Minnesota Department of Natural Resources
Groundwater Atlas Program
mndnr.gov/groundwatermapping

Water Chemistry

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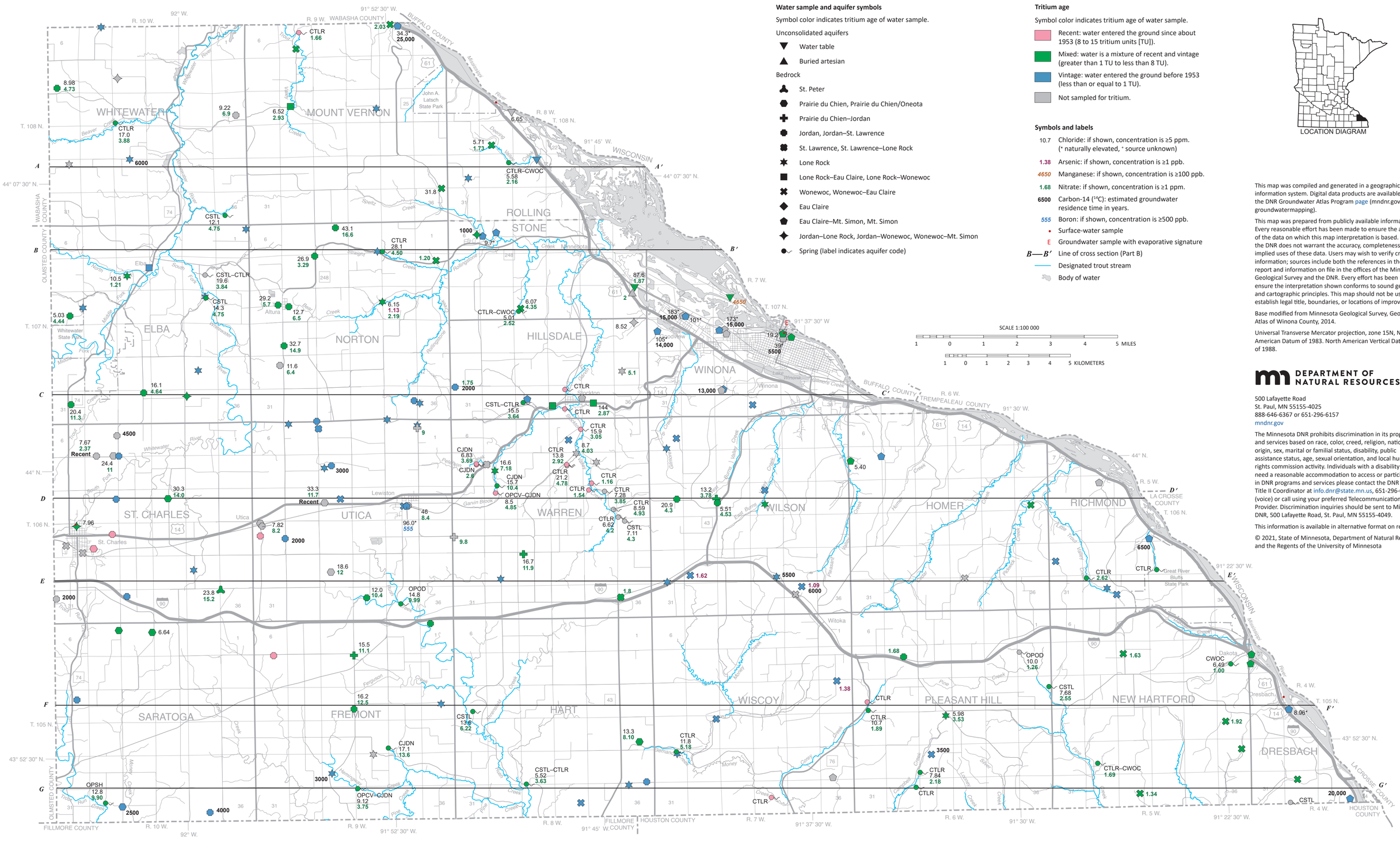
To accompany atlas Report and Plate 6.



Map Explanation

Water sample and aquifer symbols

Symbol color indicates tritium age of water sample.

Unconsolidated aquifers

- Water table
- Buried artesian

Bedrock

- St. Peter
- Prairie du Chien, Prairie du Chien/Oneota
- Prairie du Chien–Jordan
- Jordan, Jordan–St. Lawrence
- St. Lawrence, St. Lawrence–Lone Rock
- Lone Rock
- Lone Rock–Eau Claire, Lone Rock–Wonewoc
- Wonewoc, Wonewoc–Eau Claire
- Eau Claire
- Eau Claire–Mt. Simon, Mt. Simon
- Jordan–Lone Rock, Jordan–Wonewoc, Wonewoc–Mt. Simon
- Spring (label indicates aquifer code)

Tritium age

Symbol color indicates tritium age of water sample.

- Recent: water entered the ground since about 1953 (8 to 15 tritium units [TU]).
- Mixed: water is a mixture of recent and vintage (greater than 1 TU to less than 8 TU).
- Vintage: water entered the ground before 1953 (less than or equal to 1 TU).
- Not sampled for tritium.

Symbols and labels

- 10.7 Chloride: if shown, concentration is ≥5 ppm. (* naturally elevated, ˢ source unknown)
- 1.38 Arsenic: if shown, concentration is ≥1 ppb.
- 4650 Manganese: if shown, concentration is ≥100 ppb.
- 1.68 Nitrate: if shown, concentration is ≥1 ppm.
- 6500 Carbon-14 (^{14}C): estimated groundwater residence time in years.
- 555 Boron: if shown, concentration is ≥500 ppb.
- Surface-water sample
- E Groundwater sample with evaporative signature
- B—B′ Line of cross section (Part B)
- Designated trout stream
- Body of water

SCALE 1:100 000

1 0 1 2 3 4 5 MILES

1 0 1 2 3 4 5 KILOMETERS

This map was compiled and generated in a geographic information system. Digital data products are available on the DNR Groundwater Atlas Program page (mndnr.gov/groundwatermapping).

This map was prepared from publicly available information. Every reasonable effort has been made to ensure the accuracy of the data on which this map interpretation is based. However, the DNR does not warrant the accuracy, completeness, or any implied uses of these data. Users may wish to verify critical information; sources include both the references in the report and information on file in the offices of the Minnesota Geological Survey and the DNR. Every effort has been made to ensure the interpretation shown conforms to sound geologic and cartographic principles. This map should not be used to establish legal title, boundaries, or locations of improvements.

Base modified from Minnesota Geological Survey, Geologic Atlas of Winona County, 2014.

Universal Transverse Mercator projection, zone 15N, North American Datum of 1983. North American Vertical Datum of 1988.

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