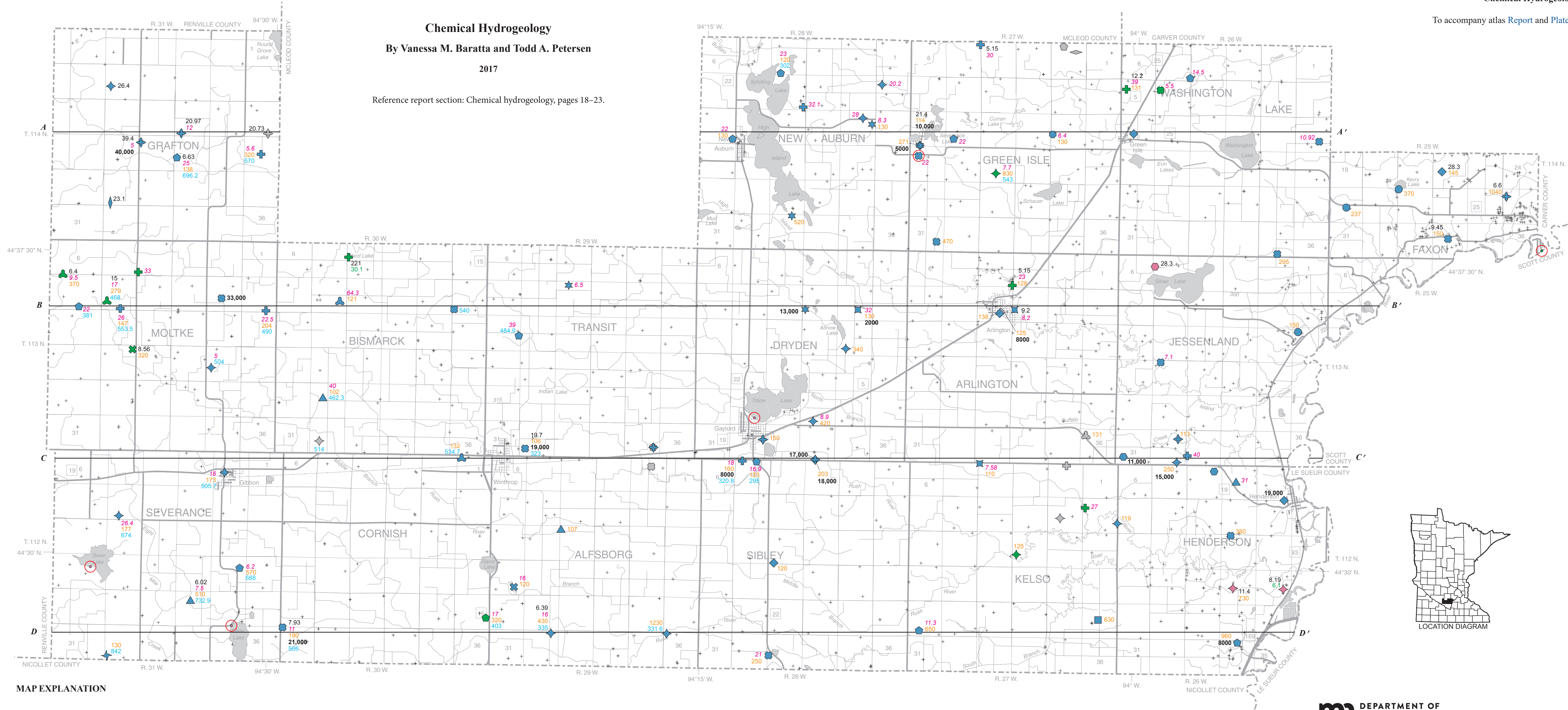


To accompany atlas Report and Plate 8.

Chemical Hydrogeology  
By Vanessa M. Baratta and Todd A. Petersen

2017

Reference report section: Chemical hydrogeology, pages 18–23.



MAP EXPLANATION

Sampled well and aquifer symbols

Symbol color indicates tritium age of water sample.

- Surface water

Surficial aquifer

ss

Buried sand and gravel aquifers

- sb
- sh/sv
- sm
- st
- sg1
- sg2
- sge/sg3
- sg4
- suu
- unnamed

Bedrock well construction

- Prairie du Chien, Prairie du Chien–Jordan
- Jordan
- St. Lawrence, Upper Tunnel City, Upper Tunnel City–Wonewoc, Upper Tunnel City–Eau Claire
- Wonewoc, Wonewoc–Eau Claire
- Mt. Simon, Mt. Simon–Hinckley, Mt. Simon–Fond du Lac
- Cretaceous undifferentiated
- Sioux Quartzite
- Multiple, indeterminate

Tritium age

Symbol color indicates tritium age of water sample.

- Recent: water entered the ground since about 1953 (8 to 15 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

- If shown, chloride concentration equals or exceeds 5 parts per million.
- If shown, arsenic concentration equals or exceeds 5 parts per billion.
- If shown, manganese concentration equals or exceeds 100 parts per billion.
- If shown, nitrate-nitrogen concentration equals or exceeds 1 part per million.
- If shown, groundwater residence time in years as estimated by carbon-14 (<sup>14</sup>C) isotope analysis.
- If shown, sulfate concentration equals or exceeds 250 part per million.
- Well
- Stable isotope evaporative signature
- Line of cross section (Part B)
- Body of water

This map was compiled and generated in a geographic information system (GIS). Digital data products, including chemistry data, are available on the Minnesota Department of Natural Resources (DNR) Ecological and Water Resources Division page ([mndnr.gov/groundwatermapping](http://mndnr.gov/groundwatermapping)).

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Base modified from Minnesota Geological Survey, Sibley County Geologic Atlas, Part A, 2012.

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

GIS and cartography by Vanessa M. Baratta and Holly Johnson. Edited by Ruth MacDonald.

DEPARTMENT OF  
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