

Map Explanation

Water sample and aquifer symbols

Symbol color indicates tritium age of water sample. See Figure 5 in the report for geologic unit correlation.

Unconsolidated aquifers

- csa
- ✕ csr
- ▲ cse
- ⊕ rs
- ⊕ bsg
- ◆ os
- ⊕ ds
- dg
- ⊕ scs

Bedrock

- Hinckley
- Fond du Lac
- ◆ Precambrian crystalline

Tritium age

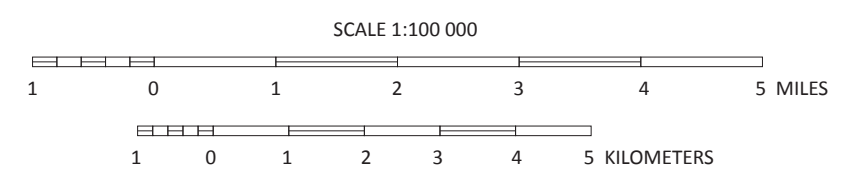
- Symbol color indicates tritium age of water sample.
- Recent: water entered the ground since about 1953 (8 to 15 tritium units [TU]).
 - Mixed: water is a mixture of recent and vintage (greater than 1 TU to less than 8 TU).
 - Vintage: water entered the ground before 1953 (less than or equal to 1 TU).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

Symbols and labels

- 17.6 Chloride: if shown, concentration is ≥ 5 ppm. (* source unknown)
- 15.6 Arsenic: if shown, concentration is ≥ 2 ppb.
- 209 Manganese: if shown, concentration is ≥ 100 ppb.
- 1.97 Nitrate: if shown, concentration is ≥ 1 ppm.
- 1100 Carbon-14 (^{14}C): estimated groundwater residence time in years.
- Surface water
- E Groundwater sample with evaporative signature
- A—A' Line of cross section (Part B)
- Body of water

Groundwater conditions

- ⊕ Water from the surface moves through a thin layer of overlying fine-grained material to an underlying aquifer.
- ⊕ Groundwater moves from an overlying surficial aquifer to a buried aquifer.
- ⊕ Groundwater moves from an overlying buried aquifer to an underlying buried aquifer.
- ⊕ Groundwater flows laterally.
- ⊕ Tritium concentrations can be artificially elevated by high volume pumping.
- ⊕ Groundwater flowpath is unknown.



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

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Base modified from Minnesota Geological Survey, Geologic Atlas of Kanabec County, 2016. Universal Transverse Mercator projection, zone 15N, North American Datum of 1983. North American Vertical Datum of 1988.



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