

Map Explanation

Water sample and aquifer symbols

Symbol color indicates tritium age of water sample.

- ▼ ou
- rls
- rls2
- rls3
- es2
- ◆ nhs
- ▲ ons
- ✕ hs2
- ✕ scs
- ◆ scs2, mls
- shs, urs, wrs
- ★ es2
- ★ qsu, qsu2
- ✕ qu
- Unknown

Tritium age

Symbol color indicates tritium age of water sample.

- Modern: water entered the ground after 1953.
- Mixed: water is a mixture of modern and premodern.
- Mostly premodern*: water likely entered the ground before 1953 but may contain a small amount of modern water.
- Premodern: water entered the ground before 1953.
- Not sampled for tritium.

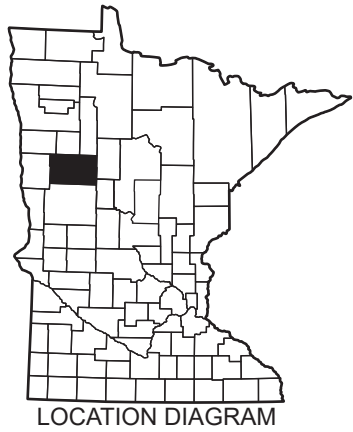
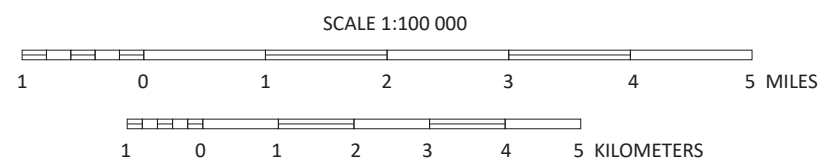
*These samples are referred to as "premodern" in the report. Both "mostly premodern" and "premodern" are shown on plates and figures for consistency with the dataset.

Symbols and labels

- 919 Chloride: if shown, concentration is ≥5 ppm. (* naturally sourced, * source not determined)
- 10.5 Arsenic: if shown, concentration is ≥2 ppb.
- 201 Manganese: if shown, concentration is ≥100 ppb.
- 127 Nitrate: if shown, concentration is >1 ppm.
- 4500 Carbon-14 (14C): estimated groundwater residence time in years.
- Surface-water sample
- Groundwater sample with evaporative signature
- Line of cross section (Part B)
- Body of water

Groundwater conditions

- Lateral flow: aquifer may have received lateral recharge from upgradient areas of higher pollution sensitivity.
- Unknown: neither the pollution sensitivity model nor groundwater conditions explained the presence of mixed or modern tritium-age water.
- Discharge: older water upwelled from deep aquifers and discharged to shallow aquifers.



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

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Base modified from Minnesota Geological Survey, Geologic Atlas of Becker County, 2016.

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



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