

Cross Section Explanation

Aquifers and aquitards

Quaternary unconsolidated
Interpreted tritium age is indicated by background color.
See Figure 5 in the report for geologic unit correlation.

1/afhl	sl
as	s1
ag	ca
at	cl
lt	s2
nd	cs
nb	s3
no	ce
hl	h1
hi	sc
sh	f1
ht	sf1
vs	h2
ts	f2
ts2	sf2
tl	wo
st	wt
ti/afci	eo
ts1	et
mt	ot
	u

Bedrock

Interpreted tritium age is indicated by pattern color.
See Figure 6 in the report for geologic unit correlation.

Os	Decorah Shale*
Opg	Platteville and Glenwood
Os	St. Peter
Opl	Shakopee
Opo	Oneota Dolomite*
Cj	Jordan
Cm	St. Lawrence Formation*
Cw	Upper Tunnel City (includes unmapped part of underlying unit)
Cf	Lower Tunnel City Group*
Cw	Wonevot
Cs	Eau Claire Formation*
Cm	Mt. Simon
Mss	Hinckley, Solor Church, Fond du Lac
Mbv	North Branch mafic volcanic sequence
Mbv	Chengwatana volcanic rock

*aquitard

Quaternary aquitards

Grouped by texture ranging from highest to lowest sand content indicating relative hydraulic conductivity.

Geologic unit code

ce, cs, mt, sf1, wt	>60%
et, ot, sf2, tt	>50% and ≤60%
ht, sh, st, vt	>40% and ≤50%
ca, ml, sc, tc	>30% and ≤40%
cl, hl, l, lt, tl	≤30%

Tritium age

Darker color in small vertical rectangle (well screen symbol) indicates tritium age of water sampled in well. Lighter color indicates interpreted age of water in aquifer. Well casings (thin vertical lines) are not shown on cross sections to avoid obscuring other information.

- Modern: water entered the ground since about 1953.
- Mixed: water is a mixture of modern and premodern waters.
- Mostly premodern*: tritium not detected and the premodern threshold is below the detection limit.
- Premodern: water entered the ground before 1953.
- Well not sampled for tritium.

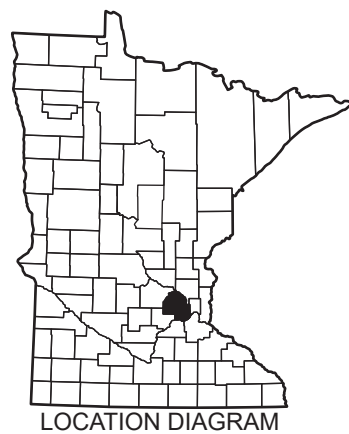
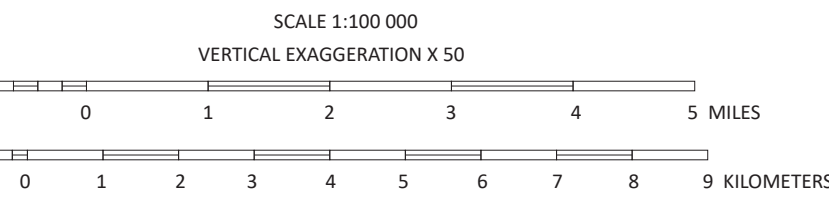
*These samples are referred to as "premodern" in the report. Both "mostly premodern" and "premodern" are shown on plates and figures for consistency with the dataset.

Symbols and labels

- 19.7 Chloride: if shown, concentration is ≤5 ppm. ("naturally elevated," source unknown)
- 4.5 Arsenic: if shown, concentration is ≤2 ppb.
- 3.9 Nitrate: if shown, concentration is ≤1 ppm.
- 25,000 Carbon-14 (¹⁴C): estimated groundwater residence time in years
- E Groundwater sample with evaporative signature
- General groundwater flow direction
- Approximate equipotential contour; contour interval 20 feet
- Geologic contact, dashed where approximate
- Land or bedrock surface
- Water table
- Direction of fault movement, arrows indicate relative movement
- Enhanced-permeability zone

Groundwater conditions

- 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 are likely artificially elevated by high-volume pumping.
- Groundwater flowpath is unknown.
- Groundwater discharges to a surface-water body.



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

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Base modified from Minnesota Geological Survey, Geologic Atlas of Hennepin County, 2018.

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

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