

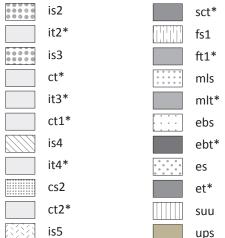
Cross Section Explanation

Aquifers and aquitards grouped by stratigraphy Interpreted tritium age is indicated by background color

Quaternary unconsolidated (see Figure 5 in the report for geologic unit correlation)

Surficial sand and gravel ss (one or a combination of the map units: ns, ou, ms, mst, il, is, ist, cl, cs, cst, hss, hts, cs1) Hydraulically connected combinations of surficial aquifer and portions of buried aquifers

Buried aquifers and aquitards mt* scs



it5*

ct3*

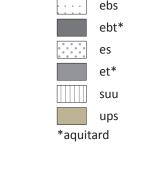
hs

//// cs3

ht*

brs

bt*



SCALE 1:100 000 VERTICAL EXAGGERATION X 50 1 0 1 2 3 4 1 0 1 2 3 4 5 6 7 8 9 KILOMETERS

Bedrock

Quaternary aquitards

Geologic unit code

ht, mt

bt, ft1, mlt

et, sct

ebt

Tritium age

p€u Precambrian crystalline bedrock

Grouped by texture ranging from highest to lowest sand

Darker color in small vertical rectangle (well screen symbol)

indicates tritium age of water sampled in well. Lighter color

Recent: water entered the ground since about 1953

Mixed: water is a mixture of recent and vintage

Vintage: water entered the ground before 1953

waters (greater than 1 TU to less than 8 TU).

Percent sand

>50% and ≤60%

>40% and ≤50%

>30% and ≤40%

>60%

≤30%

content indicating relative hydraulic conductivity.

ct, ct1, ct2, ct3, it2, it3, it4, it5

indicates interpreted age of water in aquifer.

(less than or equal to 1 TU).

Well not sampled for tritium.

(8 to 15 tritium units [TU]).

Symbols and labels

81.8 Chloride: if shown, concentration is ≥5 ppm. (* naturally elevated, * source unknown)

4.84 Arsenic: if shown, concentration is \ge 2 ppb.

250 Manganese: if shown, concentration is ≥250 ppb. 3.49 Nitrate: if shown, concentration is ≥1 ppm.

6500 Carbon-14 (14C): if shown, estimated groundwater residence time in years.

E Groundwater sample with evaporative signature General groundwater flow direction

----1175---- Approximate equipotential contour; contour interval 25 feet

— Geologic contact

Land or bedrock surface

---- Water table

Groundwater conditions ① 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.

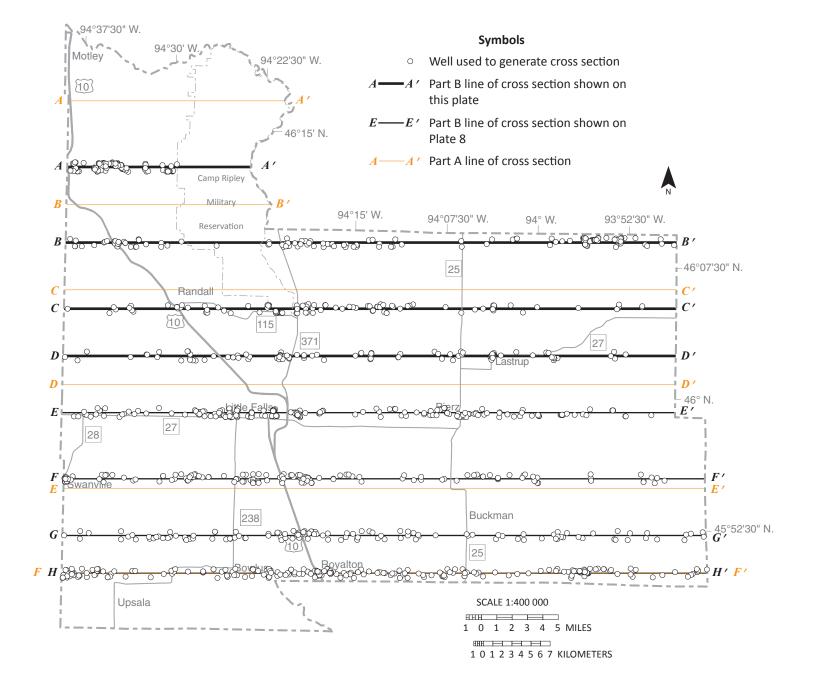
Groundwater moves from an overlying buried aquifer to an underlying buried aquifer.

Groundwater flows laterally.

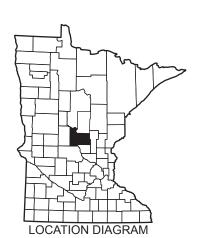
Groundwater flowpath is unknown.

Groundwater discharges to a surface-water body.

Groundwater movement is out of cross section.



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

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Base modified from Minnesota Geological Survey, Morrison County Geologic Atlas,

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

DEPARTMENT OF NATURAL RESOURCES

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