

BEDROCK GEOLOGY OF WOOD COUNTY, WISCONSIN

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EXPLANATION

CORRELATION

PALEOZOIC

Cambrian

Early Proterozoic

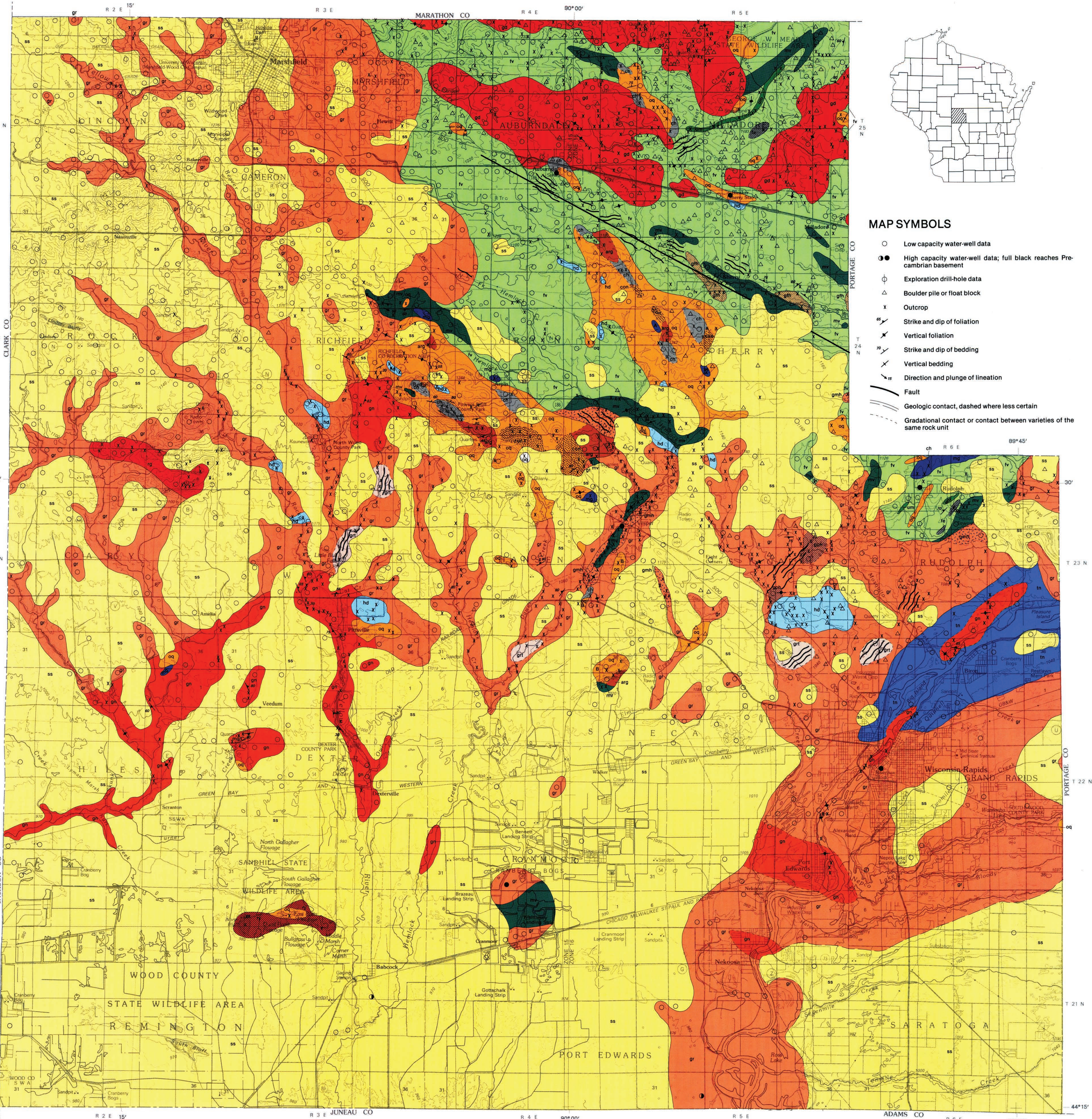
PRECAMBRIAN

Archean and Early Proterozoic?

Archean

DESCRIPTION

- SANDSTONE UNDIFFERENTIATED (ELK MOUND GROUP)**
- Well to poorly sorted fine to coarse quartz arenites, locally feldspathic or shaly, conglomeratic near the Cambrian/Precambrian unconformity. Iron-oxide cement is most common, but silica cement may be present. Red and green shale beds occur locally.
- QUARTZITE AND ASSOCIATED METASEDIMENTARY ROCKS (Baraboo interval)**
- Orthoquartzite, pink to purple, but locally green, white, to gray in color.
- Conglomerate, quartzite matrix with vein quartz and lithic clasts.
- Argillaceous rocks, including red, gray, and black slates and phyllites, commonly associated with bedded chert and iron rich rocks.
- Micaceous quartzite, quartzite with micaceous matrix, some with chromian muscovite-Cr.
- Chert, pink to red, gray to black, commonly interbedded with argillaceous rocks and micaceous quartzite.
- Banded cherty or argillaceous hematite or magnetite-rich rocks, including iron rich chert, argillite, and quartzite.
- Quartzite breccia, commonly cemented with white vein quartz.
- ANOROGENIC GRANITIC ROCKS**
- Pink to red biotite granite, typically granophytic; also two-mica equigranular granite.
- Pink to light red rhyolite, commonly porphyritic, occurs as massive, brecciated, and tuffaceous varieties. Commonly silicified with well-preserved flow banding and shard texture.
- SYN- TO LATE-KINEMATIC GRANITIC ROCKS**
- Red to pink biotite granite and granodiorite, typically equigranular massive to porphyritic.
- Granitic rocks similar to gr but foliated.
- Amphibole rich granodiorite and quartz diorite gradational with gr.
- MAFIC INTRUSIVE ROCKS**
- Gabbro, pyroxenite undeformed to well foliated, and anorthosite-A.
- Hornblende diorite and scattered occurrences of tonolite, foliated to less commonly massive.
- PRE- TO SYN-KINEMATIC INTERMEDIATE INTRUSIVE ROCKS**
- Granodiorite to tonalite, coarse grained equigranular to porphyritic, with abundant biotite and hornblende, typically well-foliated. Pits of disaggregated rock (rotten granite) used as road material-R.
- PRE- TO SYN-KINEMATIC TONALITES ALONG THE WISCONSIN RIVER (1820-1840 Ma)**
- Gray to white, coarse- to fine-grained, with well developed foliation and lineation, intruded by granitic dikes.
- INTRUSIVE HYBRIDS — DISCRETE OR IN CONTAMINATED/DEFORMED ZONES BETWEEN PLUTONS AND COUNTRY ROCKS**
- Granite/felsic-intermediate volcanic rock hybrid, fine grained gray to gneiss-banded gray and pink rocks; also biotite schist.
- Granite/mafic volcanic rock hybrid, pink/black "salt and pepper"-textured rock or mafic banded gneiss; also hornblende schist.
- Granite/mafic plutonic rock hybrid, typically fine grained tonalitic zones between granite plutons.
- FELSIC TO INTERMEDIATE VOLCANIC ROCKS**
- Quartz-sericite schist/phyllite and biotite-chlorite schist. Originally pyroclastic rocks and felsic flows.
- Quartzofeldspathic gneiss, some with feldspar porphyroblasts.
- MAFIC VOLCANIC ROCKS**
- Chlorite, actinolite, and hornblende schist, amphibolites at higher metamorphic grade. Rarely preserved amygdaloidal and pillow structures suggest origin as flows and diabase rocks.
- ULTRAMAFIC ROCKS**
- Talc-serpentine schist, metapyroxenite and metaperidotite.
- gneiss along the Wisconsin River and near Pittsville (2800 Ma)**
- Quartzofeldspathic gneiss and migmatite, well layered, banded, granitic to tonalitic in composition, containing subordinate amphibolite and biotite schist. Becomes slightly more mafic to west in Pittsville area. Intruded by Proterozoic tonalite (tn) and several generations of granite pegmatites.



PRINCIPAL SOURCES OF INFORMATION

Maass, R.S., Medaris, L.G., and Van Schmus, W.R., 1980, Penokean deformation in central Wisconsin: Geological Society of America Special Paper 182, p. 147-157.

Sherwood, E.S., 1976, Study of a Precambrian terrane in central Wisconsin near Pittsville (M.S. thesis): Madison, University of Wisconsin 65 p.

Van Schmus, W.R., 1980, Chronology of igneous rocks associated with the Penokean orogeny in Wisconsin: Geological Society of America Special Paper 182, p. 159-168.

Weldman, S., (various dates), Field notebooks in the files of the Wisconsin Geological and Natural History Survey.

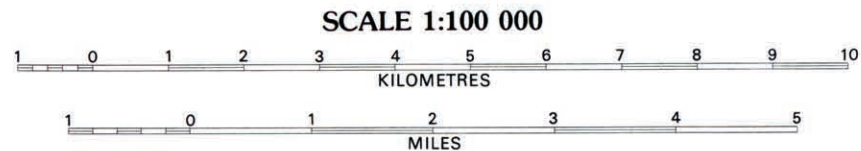
Wisconsin Geological and Natural History Survey

Geologic logs of exploration core samples

Geologic logs of municipal water well samples

Water-well constructors reports

1983, Aeromagnetic map of northern Wisconsin; scale 1:250,000.



MAP SYMBOLS

- Low capacity water-well data
- High capacity water-well data; full black reaches Precambrian basement
- Exploration drill-hole data
- △ Boulder pile or float block
- x Outcrop
- ↖ Strike and dip of foliation
- ↗ Vertical foliation
- ↖ Strike and dip of bedding
- ↗ Vertical bedding
- ↖ Direction and plunge of lineation
- Fault
- Gradational contact, dashed where less certain
- Gradational contact or contact between varieties of the same rock unit

Base map from U.S. Geological Survey County Map Series (Topographic), 1985.

INFORMATION CIRCULAR 54
Plate 1

Cartography by B.R. Haskins-Grahn.

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Wisconsin Geological and Natural History Survey Map 86-4.