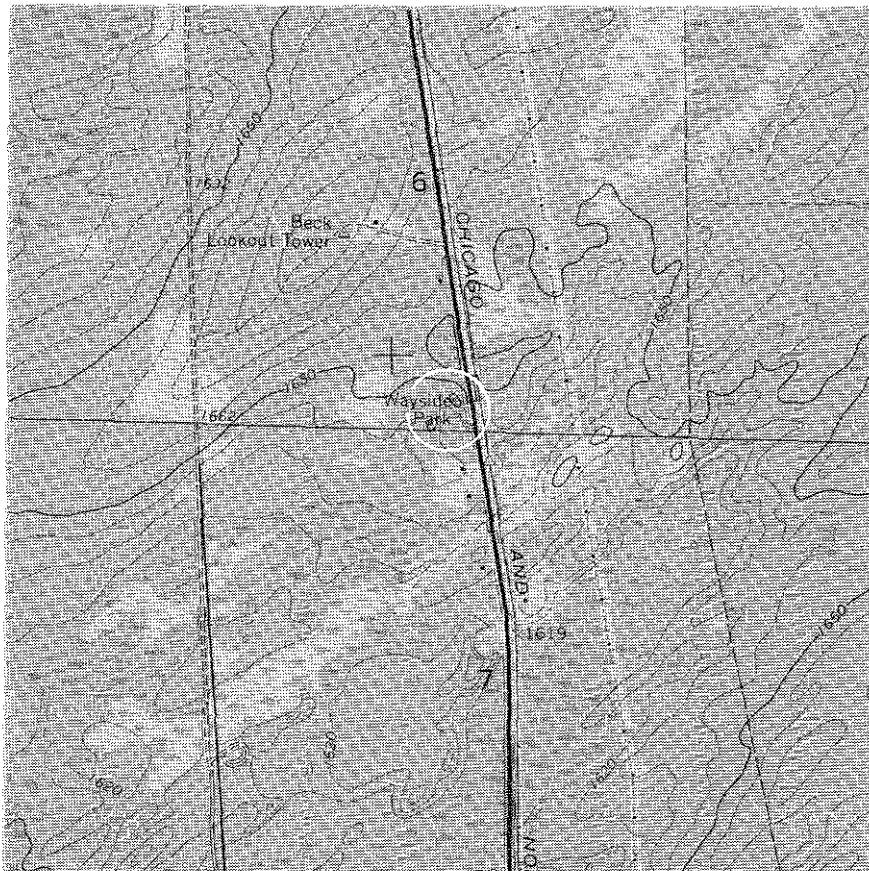


Title: Beck Tower Wayside Park - Jennings Granite

Location: 2½ miles south of Monico on U.S. 45 and State 47, SW¼, SE¼, Sec. 6, T.35N., R.11E., Oneida County (Monico 7½-minute topographic quadrangle, 1965).



Author: M.G. Mudrey, Jr. (1978)

Description: This outcrop is a coarse, red, biotite granite and exhibits spheroidal weathering. Another outcrop is present 500 feet to the northeast in a railroad cut. Fresher outcrops of the same granite are found near Jennings, about 6 miles east. According to Venditti (1973, p. 46), the rock contains euhedral orthoclase, microcline and microperthite (40 percent), subhedral to euhedral oligoclase (An<sub>27</sub>, 23 percent), anhedral quartz (31 percent), and minor amounts of interstitial biotite (3 percent). The biotite is pleochroic and light brown to dark brown, is sagenitic, and altered to chlorite. The grain size is 4-5 mm and shows no cataclastic textures at this outcrop, although outcrops near Jennings show narrow, well developed mylonitic zones.

Venditti (1973, p. 90, no. 24) reports the following analysis:

SiO <sub>2</sub>	73.1
TiO <sub>2</sub>	tr
Al <sub>2</sub> O <sub>3</sub>	15.5
FeO <sub>T</sub>	1.5
MnO	tr
MgO	tr

CaO	1.5
Na <sub>2</sub> O	3.0
K <sub>2</sub> O	4.3
Total	98.9

Van Schmus and others (1975, p. 1259, no. D1356) report a Rb-Sr age of 1,580 m.y. from this locality. Van Schmus (in press) reports a U-Pb zircon age of 1,765 $\pm$  10 m.y. from this locality.

Discussion: The potassic granitic intrusives in the Middle Precambrian of northern Wisconsin are all post-tectonic, and their ages cluster around 1,765 m.y. The younger 1,600 m.y. Rb-Sr age represents a wide-spread alteration of Rb-Sr ages that is not fully understood.

Van Schmus (in press) has divided the Middle Precambrian igneous activity into two pulses. The older one began with mafic to felsic volcanism 1,850 $\pm$  20 m.y. ago, and was followed immediately by tonalitic to granitic plutonism 1,840 - 1,820 m.y. ago. Structural studies by Maas (1977) indicate that these rocks were emplaced during the main phase of the Middle Precambrian thermotectonic event. The second pulse consisted predominantly of phylitic and granophyric granite and occurred about 1,765 $\pm$  10 m.y. ago. No plutonic units have been found so far with zircon ages in excess of 1,850, nor have any been found with ages on the order of 1,615 - 1,630 m.y., the time of widespread alteration of the Rb-Sr isotopic systems in the region.

After emplacement of the late granites, major faulting occurred (LaBerge and Myers, 1976 and LaBerge, 1977), and has been recently studied to the south in Marathon County. Late faulting is recognized in north-central Wisconsin as seen in the mylonitic samples from Jennings. Extent and magnitude of the faulting in north-central Wisconsin is not known.

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