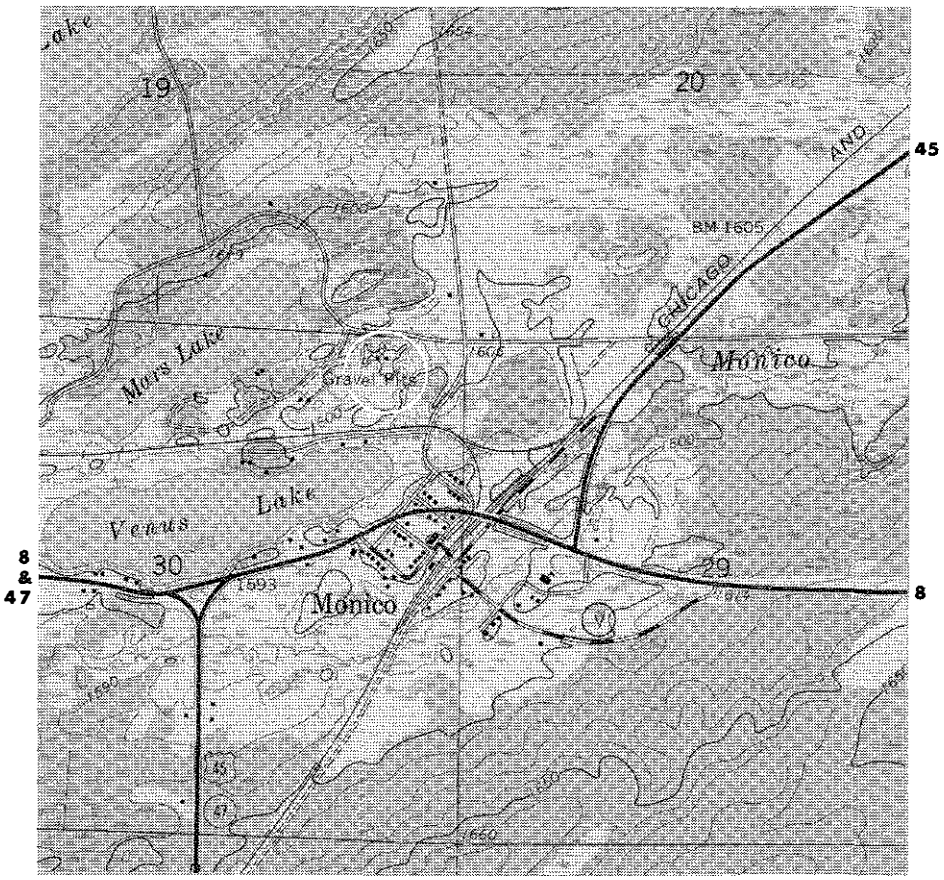
Title: Monico Gravel Pits - Andesite Pillow Lava

Location: Exposures are at the top of the hill behind houses on Baade and Lake Roads, and on the north side of the gravel pit to the west, NE¼, NE¼, Sec. 30, T.36N., R.11E., Oneida County (Monico 7½-minute topographic quadrangle, 1965).



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

Description: The outcrops consist of pillowed, fine grained, light gray andesite with sparse to abundant quartz and plagioclase phenocrysts. The pillows appear to top south. Schriver (1973, p. 25) describes the rocks as amygdaliodal basalt. In the gravel pit, the amygdule fillings have weathered out, leaving a pock-marked vesicle texture. Amygdules constitute up to three percent of the rock, range in size up to three mm, and have a globular shape, but are generally undeformed. A chlorite rim encloses the amygdule filling of epidote or epidote and quartz. The groundmass consists predominantly of epidote and actinolite less than 0.05 mm in size. Plagioclase phenocrysts are largely altered to epidote and calcite and appear to be around An_{25-30}.

Schriver (1973, p. 80, no. 16) reports the following chemical data:

		Molecular Norm (Irvine-Baragar)	
SiO_2	53.5	Q	20.5
TiO_2	0.7	Or	0.3
Al_2O_3	14.0	Ab	10.1
FeO_T	9.3	An	15.3
MnO	0.1	Wo	12.9

MgO	6.9	En	25.5
CaO	10.6	Fs	12.0
Na_2O	2.1	Mt	2.1
K_2O	0.1	Il	1.3
Total	97.3		

Other analyses of this unit several miles to the southwest contain more silica and potassium, and might more properly be termed dacite.

Other outcrops of this unit may be found on the hills to the southwest and to the northeast. Mapping in 1978 by Mudrey suggests that this unit can be traced along an east-northeast strike about 3/4 mile. Mapping also suggests that this unit overlies the tuffaceous agglomerate unit to the east and south.

Discussion: Intermediate to felsic Middle Precambrian volcanism characterizes the northern Wisconsin volcanic belt. May (1977) describes the host rocks associated with the Flambeau deposit near Ladysmith, and Schmidt and others (1978) describe similar rocks associated with the Crandon deposit. Recently, Bowden (1978) described a similar sequence of rocks at the Pelican River deposit. Present mapping and geophysics suggest that the sequence of volcanic rocks immediately around Monico are close to the same stratigraphic position as the rocks at Pelican River. This exposure probably lies stratigraphically beneath the Pelican ore body, although definitive mapping has not been completed.

References Cited:

Bowden, D.R., 1978, Volcanic rocks of the Pelican River massive sulfide deposit, Rhinelander, Wisconsin: A study in wallrock alteration: Unpub. M.S. Thesis, Michigan Technological University, 62 p.

May, E.R., 1977, Flambeau - A Precambrian supergene enriched massive sulfide deposit: Geoscience Wisconsin Vol. 1, p. 1-26.

Schmidt, P.G., Dolence, J.D., Lluria, M.R., and Parsons, G., III, 1978, Geology of the Crandon massive sulfide deposit in Wisconsin: Skillings' Mining Review, v. 67, no. 18, p. 1, 8-11.

Schriver, G.H., 1973, Petrochemistry of Precambrian greenstones and granodiorites in southeastern Oneida County, Wisconsin: Unpub. M.S. Thesis, University of Wisconsin-Milwaukee, 83 p.