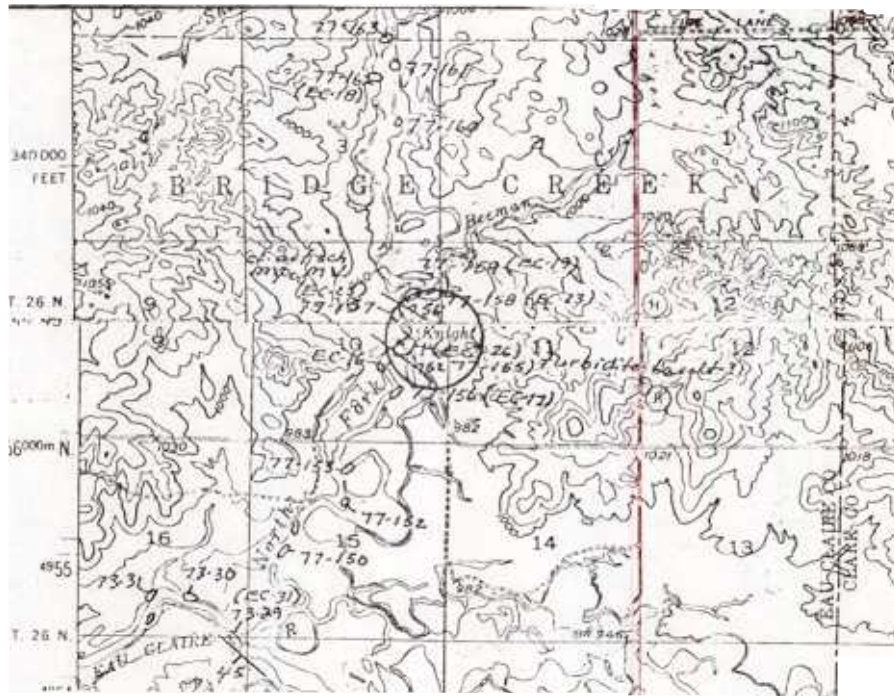


Pillowed(?) Metabasalts and Graywackes ?) and Granitic Intrusions

LOCATION: Knight Pool, Channey Road, SE 1/4, NE 1/4, Sec. 10, T 26 N, R 5 W
Fairchild and Stanley 15' quadrangles EC county



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DATE: January, 1978

SUMMARY OF FEATURES:

A large outcrop along the North Fork of Eau Claire River about 120 meters upstream from Channey Road exposes banded, gneissic amphibolite with relict volcanic structures, including highly deformed pillow structures(?) which are preserved as epidote clots. Cataclastic lamination in the amphibolite is $N68^{\circ}W, 73^{\circ}N$. Coarse metagraywackes are intercalated with the metabasalts. Lineation plunges $0-15^{\circ}E$ in the plane of cataclastic foliation. Figure 1 shows one of the more likely pillow structures.

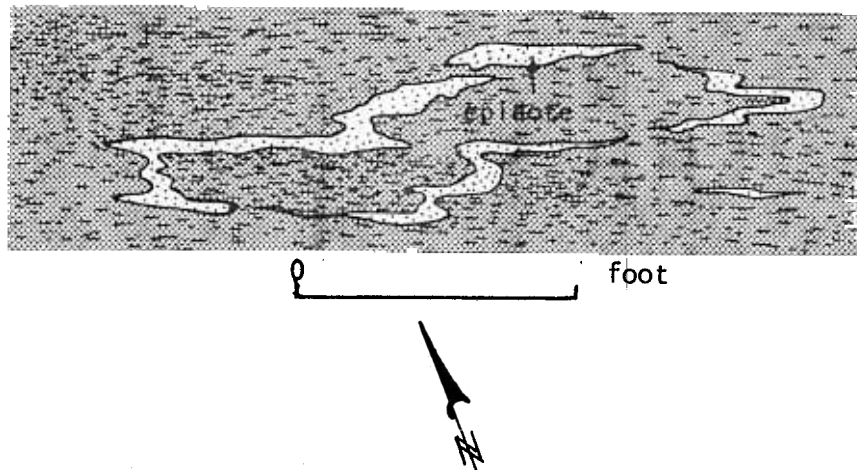


Figure 1 -- Relict, shear-folded pillow structure(?) in hornblende schist, metabasalt.

Granitic (probably leucocratic tonalite and trondhjemite) bands are structurally interlayered with the amphibolite. Several ages of granitic intrusion and shearing are indicated by their mutually cross-cutting relations. The granitic intrusions, mainly as thin veinlets, although concordant in many places, appear to have produced metasomatic alteration in adjacent amphibolite. Some granitic dikes and veinlets display cataclastic foliation: one of these cuts a non-sheared medium-grained granitic veinlet (Figure 2) Explain this - if you can...

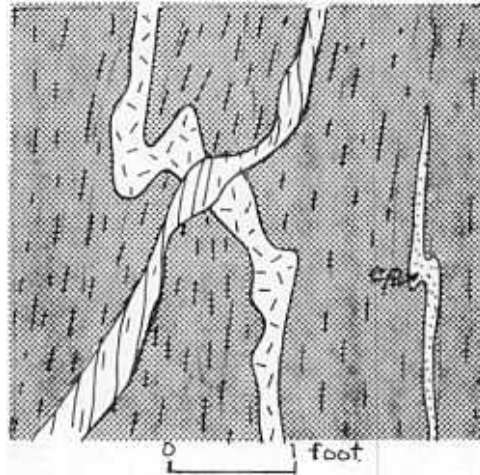


Figure 2 -- Cataclastic leuco-tonalite(?) veinlet cutting non-foliated aplite in hornblende schist.

SIGNIFICANCE:

Basalts and graywackes are uncommon in the Chippewa amphibolite complex to the west. They probably represent submarine flows and sediments associated with island arc volcanism. These rocks, because of their lower grade of metamorphism and sedimentary affiliations probably belong to the younger sedimentary sequence which rests unconformably upon the Chippewa amphibolite complex and should correlate with bedded tuffaceous sediments near the confluence of North and South Fork of Eau Claire River about 3 kilometers southwest of here. It is emphasized that much more detailed field and laboratory work is needed to confirm this hypothesis, if indeed such confirmation is possible at all.