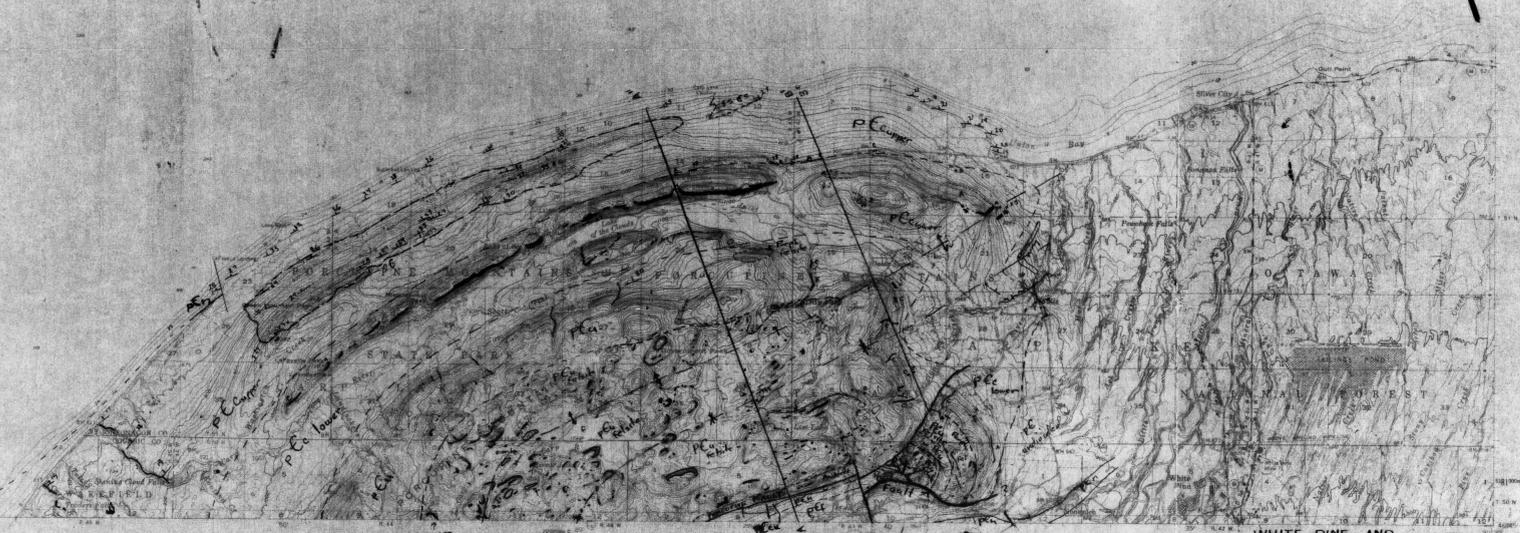


Prepared in Cooperation with  
Michigan Department of Natural Resources  
Geological Survey Division

UNITED STATES DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUPERIOR  
LAKE

Draftman  
USE solid lines for  
formation and  
member boundaries



Geology by H.A. Hubbard, 1970 & 1971;  
Geology along shore of Lake Superior  
by W.S. White and J.C. Wright, 1960;  
Geology of Nonesuch formation in southeast  
from Butler and Burbank, 1929

BEDROCK GEOLOGY OF  
THE PORCUPINE MOUNTAINS,  
MICHIGAN  
by  
Harold A. HUBBARD

U. S. Geological Survey  
OPEN FILE MAP 74-1052  
This map is preliminary and has  
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Bedrock Geology of the Porcupine Mountains, Michigan  
by  
Harold A. Hubbard

EXPLANATION

U. S. Geological Survey  
OPEN FILE MAP  
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Freda Formation  
Very fine- to medium-grained, reddish brown sandstone  
with subordinate laminated reddish-brown siltstone;  
most detrital material from metamorphic and volcanic  
rocks.

Nonesuch Formation  
Massive and laminated, dark- to reddish-gray siltstone  
with interbedded gray to reddish gray fine-grained  
sandstone; most detrital material from volcanic and  
metamorphic rocks.

Copper Harbor Conglomerate  
Red to brown boulder conglomerate with subordinate  
amounts of pebble conglomerate and beds of sandstone;  
most detrital material is rhyolitic in composition,  
fragments of intermediate lava are subordinate, and  
fragments of plutonic and metamorphic rocks are un-  
common. Lava flows occur in lower part of formation.

Unnamed Formation  
Basalt, andesite, and rhyolitic flows; porphyritic,  
fine grained, equigranular textures;  
conglomerate and sandstone containing rhyolitic  
fragments with subordinate intermediate and mafic  
volcanic rock fragments.

felsite flow

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EXPLANATION  
sheet 2 of 2

Contact  
approximately located

Fault  
approximately located

Strike and dip of beds

Area with outcrops

Outcrop or small area with outcrops

U. S. Geological Survey  
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R290  
no. 74-1052  
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Handwritten note: *Handwritten (Porcupine Mts.) Geol. 1:62500. 1974.*