COVELLITE

CuS

A widespread copper mineral, both hypogene and supergene in origin, found in a variety of veins and disseminated types of copper deposits. In the Copper Country it is generally restricted to the upper parts of the deposits whose oxidized tops were not removed by glaciation. Northern Peninsula.

Keweenaw County: **1.** Cliff mine property, NW ¼ section 36, T58N, R32W: With chalcocite, digenite, chalcopyrite, and hematite in 1 to 5 mm vesicles in the amygdaloid of the Greenstone flow. It replaces chalcocite (Cornwall, 1951a). **2.** Mount Bohemia: With chalcocite, digenite, bornite, and pyrite in veins in diorite (Robertson, 1972, 1975). **3.** Gratiot Lake chalcocite deposit, sections 6 and 7, T57N, R30W and sections 1 and 12, T57N, R31W: As a very minor constituent associated with chalcocite, pyrite, bornite, and chalcopyrite in brecciated amygdaloid flow tops in the Portage Lake Volcanics (Maki, 1999).

Marquette County: **1.** Marquette River: In copper-sulfide-bearing veins that cut the Kona Dolomite (Reed, 1965). **2.** Enchantment Lake, SW ¼ NE ¼ section 32, T48N, R25W: In dolomitic marble with chalcopyrite, bornite, chalcocite, and specular hematite (Reed, 1967b). **3.** Yellow Dog peridotite, sections 11 and 12, T50N, R29W: Trace amounts with secondary marcasite and bornite are components of the accessory sulfide assemblage (Klasner et al., 1979). See augite, enstatite, olivine, pyrrhotite, pentlandite, and chalcopyrite. **4.** Marquette Mall, approximately 2.5 km west of downtown Marquette on highway M-28: Covellite occurs as tiny grains and inclusions in pyrite in a brecciated pyrite-carbonate unit exposed in an outcrop south of the Marquette Mall. Other minerals present include monazite, ilmenite, chalcopyrite, and sphalerite (Duskin and Quigley, 1999).

Ontonagon County: White Pine: In the Nonesuch Shale near the top of the cupriferous zone. Some covellite forms rims on greenockite (Carpenter, 1963; White and Wright, 1966; Brown, 1968). Also in veinlets in the chloritic facies of the Copper Harbor Conglomerate (Hamilton, 1967).

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UPDATE

Baraga County: See Part IV.

Dickinson County: Covellite associated with pyrite has been identified by reflected light microscopy in samples from a "gold prospect" along a railroad cut of the Chicago, Milwaukee and St. Paul Railroad south of Iron Mountain in highly fractured greenstone.

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