

GALENA

PbS

The most common lead mineral. It is widely distributed in a variety of hydrothermal vein and replacement deposits in addition to Mississippi Valley Type deposits. Northern and Southern Peninsulas.

Baraga County: Vanadium prospect 0.8 km south of Huron River bridge: In granite.

Branch County: Old shale quarries southeast of Coldwater: Clay ironstone concretions in the Coldwater Shale (Mississippian) contain siderite with specks of sphalerite, galena, and pyrite (Dorr and Eschman, 1970).

Dickinson County: Metronite quarry east of Felch: Small amounts of galena with pyrite and chalcopyrite in Randville Dolomite adjacent to a granitic dike (Pratt, 1954).

Eaton County: Grand Ledge Clay Products Company quarry at Grand Ledge: Siderite concretions in the Saginaw Formation (Pennsylvanian) contain pyrite, marcasite, sphalerite, and galena grains (Dorr and Eschman, 1970).

Gogebic County: Copp's mine, 10 km north of Marenisco: With chalcopyrite, pyrite, and sphalerite (Dana, 1892). This locality, in section 14, T47N, R43W, also is cited by Rominger (1895), who states that galena fills irregular fissure seams in a brecciated quartzite layer cemented by chalcedonic masses. The quartzite band is overlain by graphitic slate and, according to Rominger, extends westward into SE ¼ section 17 where it is crossed by the Presque Isle River. The galena contains "only a small proportion of silver." (page 45). Another nearby occurrence is in NW ¼ NE ¼ section 24, T47N, R43W, where a granite-pebble basal conglomerate resting on granite contains "brownspar" (presumably siderite) and "[c]revices in the rock mass are replenished with galena" (Rominger, 1895). Galena-bearing quartzite overlying a coarse quartz-pebble conglomerate also was noted by Rominger (1895) on the north line of section 23 just to the west and south of Copp's mine.

Huron County: 1. Sebewaing Township, SW ¼ section 8, T15N, R9E: Galena was reported from Henry Muller's Well, where at approximately 35 meters, were found "brown angular fragments with some sulfide of iron and zinc showing probably that they have passed through a siderite nodule" (Lane, 1900, page 145). 2. Fairhaven Township, section 15, T16N, R9E: In Collison's well "gray rock with pyrite and galena" was found at 12 to 15 meters (Lane, 1900, page 161). 3. Section 21, T16N, R9E: "George Schuck is said to have found a piece of galena in digging this well." The well was 5.5 meters deep in drift (Lane, 1900, page 161). 4. Section 22, T16N, R9E: "This well . . . has a pyrite-galena vein between 40 and 50 feet(?)." Also, "minimal pyrite and galena .. were found at 75 feet" (Lane, 1900, page 161). 5. Fairhaven Township, W ½ NE ¼ section 14, T16N, R9E: In Tom Snell's Well, "[i]t is said that lead was struck...from 30 to 45 feet in blue shale with more or less pyrite...the chances are that if struck this was a mere nodule in the shale." (Lane, 1900, page 161). 6. Section 11, T16N, R9E: "Mr. Lambert of Caseville, said he picked up a chunk of galena as big as your fist near the mouth of the Shebeon (River)" (Lane, 1900, page 222). These old reports and data leave little doubt that the Upper Mississippian limestones (Bayport Limestone) of western Huron County are locally mineralized with minor amounts of galena and sphalerite. 7. Wallace Stone Co. quarry, Pigeon: Galena occurs rarely as an accessory mineral in small quartz geodes associated with calcite, dolomite, millerite, and other minor sulfides. Lightly etched cubo-octahedral crystals up to 3 mm have been found.

Iron County: 1. Sherwood mine: Scarce specks were noted in polished sections of uraninite-bearing rock of post-iron ore age. The lead for this galena is probably radiogenic (James et al., 1968). 2. Buck iron mine: With other sulfides and pitchblende (Vickers, 1956b).

Keweenaw County: 1. South Cliff Mine: With sphalerite (Butler and Burbank, 1929). 2. A rare species in copper sulfide mineralization in the Mount Bohemia area. Associated are chalcopyrite and less commonly pyrite and sphalerite. In drill cores (Robertson, 1972).

Marquette County: 1. Holyoke and Sedgwick mines and prospects in the Dead River area: In quartzose veins with pyrite, sphalerite, gold, and

chalcopyrite. The galena is argentiferous, but all mining operations (before 1879) proved to be failures (Rominger, 1881) The Holyoke mine is located in the NE ¼ section 2, T48N, R27W. **2.** Silver Lead mine, SE ¼ SE ¼ section 30, T46N, R24W, on the bank of Silver Lead Creek approximately 20 meters from its crossing with Marquette Co. Rd. 460: With chalcopyrite and pyrite in quartz veins. **3.** Dead River: A very minor constituent of quartz-carbonate veins carrying copper sulfides (Puffet, 1966). Puffet (1974) lists two specific occurrences: sections 4 and 22, T48N, R26W (chalcopyrite). **4.** Northern range on northeast side of Dead River Storage Basin: About a dozen prospects; one in section 25, T49N, R28W, exceptionally rich in galena; one in section 29, T49N, R27W; one in NW ¼ section 33, T49N, R27W; six in section 35, T49N, R27W (German Camp); one in section 26, T49N, R27W: Quartz-carbonate-sulfide veins in small shears and faults cutting Lower Precambrian, slightly metamorphosed andesite, basalt, and graywacke (Segerstrom and Raymond, 1966). **5.** Presque Isle: Veins in serpentinized peridotite with pyrite, pyrrhotite, chalcopyrite, violarite, and millerite (Brooks, 1873; Spiroff, 1940; Snelgrove et al., 1944). **6.** Ropes gold mine: A minor mineral in auriferous quartz-tetrahedrite veins (Broderick, 1945). Bornhorst et al. (1999) note some of the galena is argentiferous. **7.** Michigan gold mine (Broderick, 1945). **8.** Mount Mesnard (Dana, 1892). **9.** Sauk Head: In quartz-chalcopyrite veins. **10.** Silver Creek-Rocking Chair Lakes area: A local constituent with other sulfides in gold-bearing (q.v.) quartz veins (Johnson et al., 1986). **11.** Clark Creek region: In altered meta-basalt of the Ishpeming Greenstone Belt as disseminated sulfides and in veinlets of quartz-carbonate-sulfides. The sulfides are pyrite, chalcopyrite (q.v.), arsenopyrite (q.v.), and pyrrhotite, with locally dominant galena and sphalerite. An anomalous silver assay was obtained from one galena occurrence (Baxter et al., 1987). **12.** Hill's Lake area: A local constituent of altered basalts with sphalerite, arsenopyrite, and pyrrhotite (q.v.) associated with quartz veins (Johnson et al., 1987).

Ontonagon County: White Pine mine: In Nonesuch Shale above cupriferous zone. Occurs as disseminated grains as large as 2 mm and in fractures with pyrite, marcasite, and chalcopyrite (Brown, 1966, 1968). In 1970 and 1971 silver-

bearing galena with sphalerite was found lining tension fractures in the Copper Harbor Conglomerate directly below the White Pine ore horizon with other sulfides (R. W. Seasor, written communication, 1977). In 1975, cubo-octahedral crystals to 5 mm associated with sphalerite and chalcopyrite were found "in the Southwest orebody just west of the White Pine fault while a conveyor belt access ramp drift was being driven" (Rosemeyer, 1999).

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UPDATE

Dickinson County: From an abandoned pegmatite quarry near Randville, near center of N ½ NW ¼ section 26, T42N, R30W: As small grains recovered from heavy mineral concentrates prepared from crushed pegmatite stockpiles.

Menominee County: See Part IV.

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