

## NICKELINE

NiAs

Occurs in hydrothermal veins, usually with cobalt arsenides or other arsenide and sulfide minerals. Found in Michigan in the copper arsenide veins cutting the native copper lodes. Northern Peninsula.

**Keweenaw County:** 1. Mohawk mine: Intergrown with domeykite (Moore, 1962; Williams, 1963a; Morris, 1983). This occurrence has been confirmed by X-ray diffraction (P. B. Moore, personal communication). 2. Seneca mine: Unconfirmed. A brownish-pink metallic nickel mineral seen in polished sections of material from arsenide fissures crossing the Kearsarge lode may be nickeline. It occurs with two other Co-Ni minerals (Butler and Burbank, 1929).

**FROM: Robinson, G.W., 2004 Mineralogy of Michigan by E.W. Heinrich updated and revised: published by A.E. Seaman Mineral Museum, Houghton, MI, 252p.**

### UPDATE

**Baraga County:** The Huron River uranium prospect, NW ¼ NW ¼ section 1, T51N, R30W: As rare overgrowths associated with mercurian silver (Carlson et al., 2007a). Electron microprobe analysis of this nickeline yields the following composition based on 2 a.p.f.u. (Ni<sub>0.96</sub>Ag<sub>0.02</sub>Co<sub>0.01</sub>)<sub>Σ0.99</sub>(As<sub>0.87</sub>Sb<sub>0.14</sub>)<sub>Σ1.01</sub>.

**UPDATE FROM: Robinson, G.W., and Carlson, S.M., 2013, Mineralogy of Michigan Update: published online by A.E. Seaman Mineral Museum, Houghton, MI, 46p.**