LIZARDITE

Mg₃Si₂O₅(OH)₄

(see also antigorite, clinochrysotile, serpentine)

Chiefly a hydrothermal member of the kaoliniteserpentine group; one of five serpentine polymorphs best distinguished by X-ray and TEM methods. Lizardite is probably a constituent of serpentines from several localities in Michigan, although it has not been specifically identified except from the Tracy mine in Marquette County. Northern Peninsula.

Marquette County: Tracy iron mine: White fine-gained serpentine occurs as fillings in vugs and fissures in hematite and goethite ores, disseminated in ore, or associated with gypsum and rhodochrosite from six specimens of drill core. This is the first recognized occurrence of this serpentine species in Michigan. X-ray patterns indicate four similar but slightly different phases of aluminous serpentines are present. For a complete discussion and X-ray data, see Bailey and Tyler (1960).

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

Marquette County: Ishpeming, Lake shaft: All specimens of the ovoid gray-white nodular "kaolinite" from this and other nearby localities in the A. E. Seaman Mineral Museum's collection were recently X-rayed and found to be aluminian lizardite, whose composition was verified by energy dispersion X-ray spectrometry. The noticeable dark gray bands often seen in these specimens are due to inclusions of manganese oxide(s).

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.