

OPAL

$\text{SiO}_2 \cdot n\text{H}_2\text{O}$

Opal is an amorphous form of silica containing variable amounts of water that is typically associated with low-temperature, near-surface geological environments. It is thought to precipitate from groundwater as a hydrous silica gel that later dehydrates and hardens into opal. It is important to understand that most opal is not of the gem variety. Common opal is typically opaque or translucent white, with no play of colors as in the gem varieties. Northern Peninsula.

Baraga County: Roland Lake: Unusual soft, white-to-blue stalactites of opal occur as speleothems in voids between boulders and as crumbly, glassy to opaque white encrustations upon them in a Pleistocene till exposed in an unnamed gravel pit ~3 km southwest of Roland Lake. The opal is X-ray amorphous, and contains minor amounts of Al and S in its energy dispersion X-ray spectrum. While reported previously as known from Michigan, this represents the first confirmed occurrence of opal in the state.



Opal stalactites to 4.5 cm long (left) from near Roland Lake, Baraga County. A. E. Seaman Mineral Museum specimens DM 27459, George Robinson photograph.

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.