of the resulting products are removed by erosion. However, in places along the hillsides, the rotten rock, consisting mainly of kaolin and quartz, is not removed and may be ten to twenty feet deep. The kaolin is commonly stained by iron oxide. In no place in Northampton County has it been found practicable to separate the kaolin commercially.

**HALLOYSITE (H₄Al₂SiO₇•H₂O)**

A clay described by Eyerman in Mineralogy of Pennsylvania, Part II, is referred to halloysite.

I have found a hydrous manganese-aluminium silicate at the Sampson limonite mine, Cedarville, Easton, where it occurs as a brownish pink clay: an analysis afforded me SiO₂ 23.23, Al₂O₃ 9.71, Fe₂O₃ 4.85, MnO 42.15, CaO 2.91, H₂O 17.15.

**URANOPHANE (CaU₂Si₅O₆•6H₂O)**

In the serpentine quarry along the Delaware River road, Easton, specimens of uranophane have recently been found. It occurs as a light yellow encrustation in association with serpentine, talc and other minerals. Credit for recognizing this mineral belongs to George W. Gehman.

**CHRYSOCOLLA (CuSiO₄•2H₂O)**

Small patches of chrysocolla in serpentine have been observed in the serpentine quarries of Chestnut Hill, Easton. It is comparatively rare.

**TITANITE (CaTiSiO₄)**

Wherry⁷⁰ has reported titanite as an accessory mineral in a very basic gneiss occurring one mile southeast of (South) Bethlehem. George W. Gehman also reports titanite in the serpentine quarries, Easton.

**PHOSPHATE**

**APATITE (Ca₇(F,Cl)Ca₆(PO₄)₃)**

Gehman states that he has found small sky blue crystals of apatite in the west end of Williams’ serpentine quarry, Chestnut Hill.

**WAVELLITE (Al₅(OH,F)₂(PO₄)₃•5H₂O)**

The only place in Northampton County where wavellite has been recognized is a small abandoned limonite iron mine about one mile southeast of Hellertown. Wherry⁷¹ has described the occurrence and results of crystallographic measurements. The following quotations are from his paper: