found. A large dump at the east end of the pit is composed of red, yellow, and brown clay, and some black clayey material containing weathered pyrite.

145. Jonas Grammis' mine.
"Leased by Allentown Rolling Mill Co. The ore occurs in yellow clay above white clay. The dip of the clay is east and south-east, but irregular."
"Limonite, soft and cellular with some of the cells being filled with yellow clay; partly laminated structure."

This small flooded pit is northeast of and has the same characteristics as mine 144.

146. Jonas Grammis' mine.
"Not worked. This mine is 25 feet to water, but was inaccessible, and therefore could not be examined."
"Limonite, soft and cellular with some of the cells being filled with yellow clay; partly laminated structure."

This pit has been completely filled.

147. This fairly large pit filled with water has several small dumps at one end. Parts of the sides are grass-grown, but show some yellow clay. Quartz and limestone fragments, considerable lump ore and turgite, and a little sericite material are present.

148. Gackenbach's mine.
"Leased by the Crane Iron Co. The ore occurs in this mine in yellow clay, and no damourite-slate or white clay occurs with it, so far as could be seen. There are two beds of ore in the mine, the upper one about 10 feet thick, which are separated by clay. Water-worn limestone was struck, in some places, at a depth of 60 feet; no ore was found under this, but in clay in depressions in it. The ore occurs in and above the clay, and not in the limestone. The mine is 72 feet deep to the water, and there were about 20 feet of water in it when visited.
"A portion of the ore is called 'red rock ore' and appears red besides having a red streak. It is probably limonite rendered anhydrous by some local cause. The ore in the bottom is said to be very fine and almost solid."
"Limonite, stalactitic, cellular, and sandy; the color is various shades of brown and vermillion; contains 10.83% water."

This pit is several hundred feet long and about 100 feet wide. It is very deep and the bottom is filled with water. The banks are composed of yellow and red clay. Limestone is found abundant, but only one block was found in place, and this was silicified, weathered, and parts of it had a shaly appearance. Fragments of low grade ore and of pure and weathered quartz were seen. There are several large dumps on the opposite side of the road from the pit.

149. This is a small mine hole filled with trees and brush. Two small dumps show yellow clay, quartz, sericite and siliceous material, and lump ore.

150. This is a long, narrow, and fairly shallow pit. The banks are covered by trees, brush, and grass. Yellow clay is exposed on the banks and quartz, siliceous material, and a little lump and fragmental ore.