There is a report that the ore contained considerable titanium, but this has not been verified.

275. A short distance west of Spring Valley a tunnel was driven into the hill in search of magnetite ore. It is reported that some ore was found but not enough for profitable mining.

276. Prime states that "a small opening has been made for magnetic ore about \( \frac{1}{2} \) mile west of Leipert's Gap just west of the mountain summit south of the Shimersville-Emaus road near J. Wetzel's house.

"Nothing can be seen in the opening. Fragments of the ore on the surface are very siliceous. The ore is associated with feldspathic gneiss with hornblende." (Report D3, p. 228.)

277. About 2 miles southwest of Macungie some excavations have been made and considerable gneiss thrown out. It is not certain whether the ore sought and presumably found was magnetite or hematite. A few poor specimens of hematite were picked up. The diggings are close to the Hardyston—gneiss contact so that it is possible they are in the Hardyston and the ore was limonite.

278. John Jacobs' mine. A large waste pile of gneiss near an old shaft said to be 100 feet in depth contains magnetite in lenses or bands in a light to dark-colored gneiss, and grains of magnetite intermingled with feldspar, quartz, hornblende, and biotite. A caved spot west of the dump indicates that drifting was done in that direction. There are indications of an old adit or tunnel at a lower level, evidently driven to intersect the ore body and for drainage. The history of the operation has not been obtained.

279. Joseph Hensinger's magnetite mine. Considerable work has been done here, but no information was obtained regarding the ore body or the character and extent of the operation. The magnetite occurs in the form typical of the magnetite ores of the region.

280. Magnetite mine of Morris Shankweiler. This is similar to 279.

280\( \frac{1}{2} \). Some magnetite ore was mined near the crest of the large hill about a mile northeast of Old Zionsville. Appears to have been little more than a prospect.

**Hematite Iron Ores**

Hematite mines were once worked in the vicinity of Old Zionsville and Shimerville, but it has not been possible to obtain much information concerning them. The mines have caved in and there are no outcropping rocks. In Mathews and Hungerford's "History of the Counties of Lehigh and Carbon," published in 1884, is the following description:

"About the year 1870 there was discovered on the premises of Andrew Meehling (now deceased), in Zionsville, Upper Milford, one of the richest magnetite (Prime says specular hematite) iron-ore veins in Lehigh County. It was worked by John S. Schreiber & Co. for about seven years, and since 1878 has been operated by the Crane Iron Company. About the year 1875 there was also a rich vein of the same ore discovered on the premises of Charles Schoenly at the same place; and about the year 1881 there was