Economic considerations.—For many years the magnetite mines of the county have been closed, and some of the last ore mined long remained unsold. So far as known, the ore was not exhausted in any of the mines, but instead in some of them was more promising when operations ceased than it had been previously. The present condition seems to be due in part to the small and uncertain output, which was neither large enough nor sufficiently regular to appeal to iron manufacturers, and in part to the quality of the ore in comparison with other ores that are shipped into the district from other iron districts. The large amount of silica in the ore is especially objectionable, and the iron content is considerably lower than that of the Lake Superior, northern New Jersey, or Adirondack ores.

The only hope for the future of magnetite mining in this area seems to be in a change of plans by which the production would be largely increased and concentrating mills erected. The ore could be concentrated magnetically with ease, and the product obtained should find a ready market at the furnaces still in operation in the immediate vicinity. It is not at all improbable that the tailings, which would consist almost entirely of angular quartz particles, might be sold for concrete and road metal for a price sufficient to pay a large part of the cost of concentration. Unless the ore is concentrated by mill processes it is questionable whether any of the magnetite mines of the county can ever be profitably operated.

DESCRIPTIOGS OF INDIVIDUAL MAGNETITE MINES

262. The Emaus Iron Ore Co.’s mine, formerly known as the Hildergast or Shelly mine, is on the First or Front vein at the extreme west edge of the Allentown quadrangle north of Vera Cruz. It seems to have been first opened about 1890 for the Coleraine Iron Co. of Redington. It was worked at several different times. It was acquired by the above-named company in 1914 and in 1915 cleaned out and retimbered preparatory to working. All work soon ceased. This mine is the last magnetite iron mine of any kind to be operated in Lehigh County.

The shaft, which was sunk along the vein, is said to have been 100 feet deep and the ore body from 3 to 5 feet thick. The ore, which is of fair quality, contains much clear quartz and small amounts of pyrite, hornblende, and feldspar.

263. The Moyer mine, which is on the third vein, was first worked about 1885. It was last worked by James Hosking about 1897. The shaft is 60 feet deep; drifts have been run about 100 feet both east and west of the shaft. The ore averages about 45 percent iron. It is estimated that the mine has produced about 10,000 tons. The ore and vein are similar to that found in the Wieand mine.

264. The Wieand or Mann mine was worked before the Civil War and is one of the oldest magnetite mines in the region. It has two shafts about 75 feet in depth. The vein is 5 to 6 feet thick. The ore is fine-grained and contains considerable feldspar and mica as well as quartz. Drifts were run about 150 feet both east and west of No. 1 shaft. It has been estimated that the mine has produced approximately 100,000 tons of ore. Much of the ore was shipped to the Crane Iron Co.