

Lead Mines of the Lower Kentucky River Valley

GRATZ MINES

In this group there are four separate mines: (1) the Gratz mine, which is situated about one and one-half miles below the village of Gratz on the Owen County side; (2) the Twin Valley Mining Company mine a short distance north of the old Gratz mine, in Owen County; (3) the Union mine, which is slightly west of south of the Gratz mine on the Henry County side of the river; and (4) the McAlister mine, which is about three-fourths of a mile northwest of the old Gratz ferry which has now been replaced by a modern steel highway bridge over the Kentucky River.

The old Gratz mine, now abandoned, was operated by the Ohio Lead Mining Company of Portsmouth, Ohio, in 1904. In 1913, this corporation had, as the cumulative result of considerable operation, three shafts: one 380 feet, another 83 feet and the third 70 feet deep. Its drifts at the 100-foot and 200-foot levels were extended 1,040 feet and 100 feet to the north respectively. Vein materials are barite and calcite, exhibiting about 10 per cent of galenite and sphalerite. This vein ranges in width from 2 to 4 feet, averaging about 3 feet. The strike is nearly north and south, and, according to Fohs, apparently widens with depth, exhibiting at the same time an increase in its lead and

zinc ore content. The Gratz mine was entered for a considerable distance on each of the two drift levels by the writer in 1924, at which time its exterior was photographed, but long abandonment had then made a careful and thorough examination not only hazardous but quite impossible.

About 1,500 or 2,000 feet north of the old Gratz mine, along the Gratz lead vein, systematic mining and milling operations by the Twin Valley Mining Company are now in progress. Two shafts have been sunk on the vein, one to a depth of 75 feet and the other to 150 feet. During the past winter an 8-hour 150-ton mill designed to separate the galena, sphalerite and gangue minerals has been built here near the river and is now the most active lead-mining operation in this district.

The old Union mine in Henry County on the present-day property of Mrs. Maggie Cox and her son, Vernon Cox, is apparently a southward extension of the Gratz vein, though the strike there is slightly changed, being N. 5° E. It has many characteristics of the Gratz vein, consists principally of barite or calcite, a small amount of fluorite and sphalerite and about four or five percent, by estimate, of galena. Three shafts have been sunk east of the new Carrollton-Gratz highway to reported depths of about 50 or 60 feet and one west of the highway to a depth said to be about 120 feet. Water, rock rubble, trash and rotting timbers nearly fill each of these shafts, making measurements as to depth impossible. On this property

over a thousand feet has been open cut along the vein, the width of the natural fissure from wall to wall being variable from 2 to 4 feet.

Records of the Kentucky Geological survey indicate the Union mine was first prospected in 1823-1824, and that mining operations were sufficiently active to cause a furnace to be built in 1836. In 1875 a twenty-ton mill was reported by Professor C. J. Norwood in active operation and as late as 1905 and 1906 F. Julius Fohs cited the activity of the Union Mining Company of Madison, Indiana, in the annual shipment of considerable tonnage of lead ore concentrates. This property is now being operated by the Kentucky Lead Mine, Incorporated, of Cincinnati.

The McAlister mine, opened on a thin parallel vein of similar strike to the Union mine, is located about three-fourths of a mile northwest of the intersection of the Gratz and Carrollton-Lockport roads. Barite enclosing small amounts of galena occurs in this vein, which has a width reported by Fohs to vary from 4 to 7 inches. A shallow shaft and other preliminary mining operations here in evidence have long been abandoned and present-day measurements for this reason are not practical.

In summation it may be said that all the evidence available indicates the presence in the Gratz vein, on both sides of the Kentucky River, of very considerable amounts of barite and calcite with proportionate, though lesser, amounts of

galena and not a little sphalerite and fluorite. Undoubtedly a large tonnage of ore has been removed from these properties. If, as has been indicated, the ore body of this vein tends to an increase in the volume of galena and sphalerite with depth, and similarly a decrease in the gangue minerals—barite, calcite and fluorite—the Gratz mine may again, when further developed by systematic mining methods, reveal values of a high order of importance.
