

Hardin Mica Mine

North Hardin Mine. - The North Hardin mine is on a ridge about 1 1/2 miles west of Beaver Creek. It has been worked on a large scale and more systematically than is usual for mica in North Carolina. The mine was operated by two open cuts and other pits, three crosscut tunnels to the "vein," two shafts, and considerable drifting and stoping on the vein. These workings have proved the continuity of the pegmatite for a length of over 100 yards and show the thickness to vary from 3 to 8 feet. The country rock of the region is hornblende gneiss, but the mica deposit occurs in a smaller belt of biotite (probably granite) gneiss. The strike of the pegmatite is N 20 degrees E and the dip 75 degrees to 80 degrees E. At a place about 80 yards north of the main workings a shallow shaft was sunk in line with the "vein" on a small streak of pegmatite 18 inches thick, which was probably the main "vein" pinching out. Figure 22 shows the extent of the work open for examination at the time of visit. A large part of the stoping and drifts had caved in and could not be seen. The greater part of the vein above the tunnels shown in the figure had been removed, however, and future work should be directed to vein matter between old workings and to lower depths, easily attained with facilities for draining. Tunnel No 3 is probably 50 feet higher than No. 1. The mine produced a large quantity of small block mica, yielding sheets 1 by 2 and 3 by 4 inches. A number of large blocks, yielding sheets 6 by 8 and more inches square, were found with the smaller material. Many small blocks of mica and one crystal over 10 inches thick and a foot wide was seen in the "vein," embedded in feldspar. The mica has a beautiful clear "rum" color and is of the best grade. Most of the blocks yield sheets of perfect quality.

South Hardin Mine. - The South Hardin mine is near the top of a small mountain or hill about 1 1/2 miles southwest of Beaver Creek. This mine was first opened by small pits, trenches, and a tunnel along the vein. The surface workings were at the summit of the hill and the tunnel on the outcrop about 40 feet lower down to the northeast. The mine was later operated by a 30-foot shaft near the top of the hill and an open cut about 75 feet long and 10 to 20 feet deep on the "vein." The country rock of the region, like that of the North Hardin mine, a mile to the northwest, is hornblende gneiss. The mica-bearing pegmatite is enclosed in a smaller mass of biotite mica gneiss included in the hornblende gneiss. The pegmatite is conformable with the schistosity of the enclosing formations, which strike due northeast and dip 50 degrees SE at this point. The pegmatite is about 7 feet thick as exposed at the surface. The interior is fine grained or like coarse granite, whereas along the walls the crystallization is much coarser. The principal mica yield is reported to have come from the foot wall, along which massive quartz streaks up to 2 feet thick were found. It is said that the crystallization of the pegmatite was coarser below a depth of 15 feet and the quantity of mica in it was larger than near the surface. The color of the mica obtained was a clear "rum" and the quality the best. The quartz streaks along the wall of the pegmatite contained beryl crystals less than an inch to 6 or 8 inches in diameter. These crystals were of good golden and aquamarine color, though cloudy and only translucent. It was found they made very pretty gems for scarf pins, cuff buttons, etc., when cut en cabochon.

Bureau of Mines / Minerals yearbook area reports 1957
Year 1957, Volume III (1959), Page 805

Ashe.—Ashe County ranked fourth in value of mineral production. Appalachian Sulphides, Inc., began producing copper at its new Ore Knob mine and recovered 628 troy ounces of gold and 11,761 troy ounces of silver. Thirteen mines produced 24,000 pounds of sheet and 38 tons of scrap mica; leading companies were Duncan Mining Co. (Duncan mine) and P. & W. Mining Co. (Hardin mine). Macon Construction Co. and the State highway commission mined paving sand and gravel.

MICA MINES IN ASHE. Of the mica mines in Ashe county the Director of the United States Geological Survey says (1909):

"Hamilton Mine is on the west slope of a mountain two miles northwest of Beaver creek. It was reopened by the Johnson-Hardin Company in 1907. Two tunnels were run into the hillside along the vein." The character and quality of the mica are stated.

The North Hardin mine is on a ridge about one and a half miles west of Beaver creek and has been worked on a large scale. It was operated by two open cuts and other pits, etc., which have proved the continuity of the pigmatite for over 100 yards and shown the thickness to vary from three to eight feet. "The mica has a beautiful rum color and is of the best grade."

The South Hardin mine is near the top of a small mountain or hill about one and one-half miles southwest of Beaver creek. "The color of the mica obtained was a clear rum color and the quality the best." The quartz streaks along the foot wall of the pigmatite contained beryl crystals from less than an inch to six to eight inches in diameter.

BEAVER CREEK. HAMILTON MICA MINE. MICROCLINE.

"This mine is 2 miles northwest of Beaver Creek, Ashe County, N. C., on Elk Mountain. The nearest railroad is at Shouns Crossroads 23 miles northwest, too far for haulage.

"It is a very coarse pegmatite dike averaging 6 to 8 feet thick, rich in feldspar, but never free from quartz particles. However, the feldspar appears to be uniform in quality. The strike is N. 20° E., and the dip 80° E. The mica is present in some parts of this dike as isolated pockets, in others scattered through the pegmatite, rendering those parts worthless as a source of feldspar. The dike material was sampled where free from mica. The tests gave the following results:

"Deformation temperature range, 1,290° to 1,310° C. Color, when fused, free from yellow tint; only a slight milkiness.

Properties in standard porcelain mixture.

In the mixture this feldspar produces a vitreous mass at 1,300° C., and at 1,350° a very slight warping occurs. The color is equal to the standard trial. Fired at 1,350° C. it has a translucency of 0.66 and the transmitted light is cream colored. The total shrinkage is 15.8 per cent. drying shrinkage 3.4 per cent, and firing shrinkage 12.4 per cent. Under the raw-lead and fritted glazes the color is unaltered.

BEAVER CREEK. NORTH HARDIN MICA MINE. MICROCLINE.

"This mine is 1½ miles west of Beaver Creek, Ashe County, N. C. The nearest shipping point is Shouns Crossroads, 24 miles northwest. This is too far for road haulage.

"It is a narrow dike that has been worked extensively along the surface for mica. The strike is N. 20° E. and the dip 70° to 80° E. The dike averages about 6 feet thick and contains a band of microcline from 1 to 4 feet thick. A narrow band of anorthoclase is also present in a number of places. The wall rock is solid gneiss. The

The dike averages about 6 feet thick and contains a band of microcline from 1 to 4 feet thick. A narrow band of anorthoclase is also present in a number of places. The wall rock is solid gneiss. The feldspar of this dike is very free from impurities, which are chiefly quartz and mica and a few scattered iron garnets. The microcline has a deformation temperature ranging from 1,295° to 1,310° C. When fused it becomes practically clear and shows no yellow tint.

Digitized by Google

218

MINING INDUSTRY.

Properties in standard porcelain mixture.

This feldspar in the mixture produces a vitreous mass at 1,300° C., and at 1,350° shows a slight tendency to warp. Its color is equal to the standard. Fired at 1,350° C. this feldspar produces a translucency of 0.74, and the transmitted light is cream colored. Total shrinkage is 16 per cent, drying shrinkage 3 per cent, and firing shrinkage 13 per cent. Under the raw-lead and fritted glazes the color is unaltered.

The Ashe County, North Carolina Directory – 1883

Mines - Mica

Dobbin's - H. A. Dobin - Elk X Roads

Ray's - Larkin Ray - Elk X Roads

Mica Mines in Ashe. Of the mica mines in Ashe County the Director of the United States Geological Survey says (1909):

"Hamilton Mine is on the west slope of a mountain two miles northwest of [Beaver creek](#). It was reopened by the Johnson-Hardin Company in 1907. Two tunnels were run into the hillside along the vein." The character and quality of the mica are stated.

The North Hardin mine is on a ridge about one and a half miles west of Beaver creek and has been worked on a large scale. It was operated by two open cuts and other pits, etc., which have proved the continuity of the pigmatite for over 100 yards and shown the thickness to vary from three to eight feet. "The mica has a beautiful rum color and is of the best grade."

The South Hardin mine is near the top of a small mountain or hill about one and one-

half miles southwest of Beaver creek. "The color of the mica obtained was a clear rum color and the quality the best." The quartz streaks along the foot wall of the pigmatite contained beryl crystals from less than an inch to six to eight inches in diameter.