REPORT ON THE DAWN OF PEACE MINE, BRANXHOLM.

Location and Access

This mine is situated close to the southern corner of the 100 acre block of land charted in the name of H. Vivien, about one and a half miles to the west of the township of Branxholm. A part of the workings extends into the adjoining block on the south of 104 acres charted in the name of E.A. Smith.

Access is gained by branch road from the main Launceston to Branxholm road at a point one and a half miles south-west of Branxholm. The branch road is nearly two miles in length the first mile and a quarter and the remainder being a cart track.

Geology

The country is composed of Cambro-Ordovician slates and quartzites. At the surface these are generally of a buff colour, but in the mine workings where they have partly or wholly escaped superficial weathering and alteration, they are of light to dark grey colours. The beds have a strike of 20 degrees, and the general dip is to the west at angles of 60 to 80 degrees. At the entrance to the adit there seems to be an easterly dip with the suggestion of an incline.

These slates and sandstones are of the same series which occur in the goldfields of the north-eastern districts, eg., Warrentinna, Alberton, Mathinna, etc. and which contain the gold-quartz reefs of those fields. The conditions may therefore be regarded as geologically favourable for the occurrence of quartz reef.

Mine Workings

The chief workings consist of a shaft and an adit level connected with it. The shaft is 40 feet deep and is sunk on the lode. The entrance to the adit is situated about 120 feet to the south-west of the shaft. The adit was driven as a crosscut for 130 feet at a bearing of 305 degrees till the lode was cut. The lode was then driven on 60 feet to the south, a connection being made with the shaft at 30 feet and also 45 feet to the north.

Numerous trenches and prospecting shafts have been dug along the line of lode on the surface.

The Lode

The surface trenches and shafts indicate a lode with a general bearing of 20 degrees but whether these represent one continuous lode or a number of parallel or discontinuous lodes on practically the same line cannot be definitely determined.

In the prospecting shaft 18 feet north of the main shaft, the lode appears as a vertical one. At the northern end the lode represents a replacement in sandstone, there being up to four inches of quartz on the western side and two inches on the eastern side of a fifteen inch band of sandstone striking 20 degrees. At the southern end the strike is 0 degrees and the sandstone beds and quartz beds are not prominent.

In the main shaft the footwall visible has a strike of 20 degrees and a dip of 85 degrees to the east. It appears that only a few inches of quartz occurred at the surface, but it is stated that at a depth of 10 feet the lode attained a width of 20 inches and maintained this width for some distance.

At the point where it was cut by the adit crosscut, the reef was represented by a few inches of quartz in a band of black slates. The same conditions prevail along the north drive to the face. Along the south drive overhead stoping has been carried out near the shaft. In the shaft the dip of the lode is to the east, that of the strata being to the west so that the lode represents a fissure vein. About 10 feet south of the shaft, nine inches of quartz, well mineralised with arsenopyrite, is visible in the back of the drive. The lode continues as a fissure vein as far as the face of the south drive. About three inches of quartz is visible at the top of the face, but only a track occurs at the bottom. All the sulphides have been removed by oxidation from this face as it must be very close to the surface.

It is stated that six tons of quartz from the shaft and adit were treated at the Golden Mara mine for a return of one ounce per ton.

Conclusions

From the surface down the shaft to the adit, the lode is a fissure one. On the north side of the shaft at the adit level, the lode changes from a fissure one to one traversing a bed of slates parallel to the bedding planes. At the same time it diminishes in width to a few inches or a mere track.

From the shaft southwards along a drive the lode maintains its characters as a fissure one. This also appears to apply to its continuation in depth. In this part of the mine the quartz is heavily mineralised with arsenopyrite.

The mine can only be regarded as one in the prospecting stage, as no reserves of payable ore exist. All future work therefore would be merely prospecting in order to locate any parts of the lode likely to contain such reserves. The unfavourable feature of the lode is its narrow width and apparent limited extent. The northern end appears unfavourable for further work as coincidentally with the change in character, there is also a diminution in width.

Any future work would probably have more chance at the southern end, both along the lode and in depth, of locating wider parts of the lode. This work would therefore consist of driving south (this would intersect the surface in a short distance) or preferably sinking a winze from the adit level at a point immediately below or slightly to the south of the shaft. It must be remembered however that such work is purely of an exploratory nature.

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