

728-65-57

9. NOTES ON BARITE DEPOSITS, LOWER BEULAH, SHEFFIELD DISTRICT

by A. J. Noldart.

INTRODUCTION

On 19th March, 1963, a request was received at the Department of Mines, Hobart, from Mr. L. Frankcombe of Smithton, for the hire of a small diamond drill plant to test a Barite-Lead-Zinc deposit in the Lower Beulah district. A subsequent inspection of the prospect was carried out by the writer on 23rd April, 1963.

The deposits are located on a small timbered ridge in the SE corner of purchased lot 200 $\frac{1}{4}$ acres, purchaser T. Jessop, and now owned by H. O. and K. A. Frankcombe. They are situated about 90 chains east of the Minnow Townsite boundary (Lower Beulah). Access is by fair road easterly from Lower Beulah for a distance of about 100 chains thence southerly for about 40 chains. Final access for about 40 chains is by logging tracks impassable to conventional transport after rains.

GENERAL GEOLOGY

The country rocks of the district are slate and greywacke members of the Gog Range Greywacke (Cambrian). The strike of the rocks is about N70°-75°E with dips vertical or very steep to the south. Soft slate and slaty greywacke predominate in the vicinity of the workings. Several sub-parallel barite veins occur in both rock types.

The veins appear to be concordant with the general strike and dip of the country rocks but are probably located on shear patterns acutely transgressive to both strike and dip with the apparent concordance due to localized shear and stress effects in the enclosing rocks.

MAIN WORKINGS

Mining has been restricted to two occurrences only with activity restricted to prospecting only on the rest of the veins.

A. The larger workings are situated towards the top of the ridge on the southern flank. The barite vein worked was reputed to vary in width from a few inches to a maximum of 4 feet with an overall stopable width of $2\frac{1}{2}$ feet. The workings are only partly accessible but reports indicate an overall length of about 120 feet stoped to a depth of 70-75 feet below surface outcrop. The vein outcropped at the surface at only one point, all other work being subsurface with localized "peaks" approaching near surface levels.

The ore from this vein is reported as massive, crystalline barite with a greyish tinge and containing disseminated galena, sphalerite and pyrite. Remnants of the vein examined in the workings showed good grade coarsely crystalline barite with some iron contamination in the joints and fracture faces. No sulphides were observed.

B. The smaller workings are situated some 525 feet down slope from the main workings and are almost at creek level some 200 feet vertically below the bottom of the main workings.

They are located on a barite vein of similar physical characteristics to the main vein but of smaller extent. The workings are now flooded and inaccessible but are reported to extend to a depth of 20 feet over a length of about 35 feet. Samples examined on the dumps from these workings contained heavy lead-zinc contamination making the vein unsuitable as a barite prospect. The significance of the sulphide mineralization will not be known until deeper exploration is undertaken.

CONCLUSIONS

1. Several barite deposits of varying size and extent occur as sub-parallel veins and veinlets in slate and greywacke members of the Gog Range Greywacke, two of which have been actively mined.

2. The larger vein contained good grade clean, coarsely crystalline barite with a minimum of sulphide contamination and some iron staining towards surface levels. The iron staining could be expected to decrease with depth.

3. The smaller vein contained a similar type barite but was heavily contaminated with sulphides, mainly sphalerite and galena.

4. The relationship of sulphide contamination to depth is not known but it is unlikely that the sulphide content would become significant in the main vein till much greater depths are reached.

5. The deposits are considered to be of sufficient strength to warrant further exploration.

RECOMMENDATIONS

1. The main vein should be explored by diamond drilling to a depth of about 120-140 feet below the present workings to test for extensions and for continuations of the barite vein. A minimum of two drill holes each of minimum length 250 feet would be necessary to test adequately at this depth.

2. The smaller sulphide bearing vein should be explored at a depth of about 70-80 feet below the present workings to test for the possibility of significant sulphide mineralization developing with depth. At least one drill hole to a depth of 150 feet would be required.

3. The above drill holes would be sufficient to test the known ore bodies but it is recommended that penetrations be made to a distance of 50 feet past any barite veins encountered.

REFERENCES

- BLAKE, F., 1928.—Preliminary Report on Barite in Tasmania. *Rep. Dep. Min. Tas.* (Unpublished).