

REPORT ON THE PROPOSALS OUTLINED IN
MR. AMBROSE PRATT'S LETTER 11TH MAY, 1926

NE Tin Fields

In connection with the proposal in the attached letter, I have to submit the following report dealing with numerous features thereof.

The objects are described as "a careful, scientific and practical investigation of the tin resources of the State" and "a careful investigation by practical men with the object of discovery and developing any payable alluvial areas."

(1) Discovery

During the past 53 years the greater part of the State has been investigated by experienced prospectors, miners and practical mining men with the object of discovering alluvial (and lode) tin fields. In addition the Geological Survey has carefully investigated a very large portion of the tin ore districts of Tasmania and the observations have been recorded in numerous publications the most important of which are - Bulletins Nos. 6, 9, 10, 12, 14, 15, 21, 25, 29, 34-36 - Reports Nos. 1 and 6. In addition to these the results of examinations of a large number of individual mines appear in many unpublished reports. These investigations extend to every tin district. Again, where detailed examinations have not been made in many places reconnaissance surveys have provided enough information to serve as a guide to the future prospects of those areas. It may be affirmed that there is a very remote chance that any tin ore district remains to be discovered - all are known to the Geological Survey - but all is not known about them.

(2) Development

Though there is little or no chance of discovering new fields, there is, as indicated above, scope for developing the known fields. The difficulty the Survey is up against is due to lack of funds and second the need of a diamond drill and other equipment. Moreover, the small staff (2 geologists, one engaged in administrative work) does not admit of thorough testing of the value of known deposits - for instance the sampling only of a lode mine would occupy four to six weeks and the testing of deep lead might occupy six months or more. It is quite evident therefore that such undertakings are out of consideration with a staff of two. The scope of the Survey has been restricted to Geological Examinations only.

(3) Suitable areas for Development.

As the ultimate objective of the proposal is to work any payable alluvial areas located, it is obvious that only those possessing possibilities such as this should be investigated. Extensive and/or thick deposits with some degree of longevity are therefore required. The class of deposits which are most likely to meet these requirements are the "deep leads" containing alluvial tin ore. (It may be pointed out that shallow deposits are easily discovered and are readily worked by men or parties with limited capital and that it is only the deeper deposits the exploration of which is possible only to highly capitalised companies and which are more difficult to prospect and work that remain untouched till present day. Systems of deep lead exist in the north-eastern and eastern districts of Tasmania.

Numerous tributary leads have been and are worked, between Branhholm and Pioneer. The main lead has not been touched in these districts due chiefly to the thick overburden of basalt. Further the lead extends to the north of Herrick and eventually loses its basaltic overburden, but has not been prospected to determine its extent and value.

(b) The Mussell Roe System

This system exists in the vicinity of Gladstone but has been worked to only a limited extent. From this deep lead the Scotia, Lochaber, and Aberfoyle Companies obtained approximately 800 tons of tin ore. Three small companies have recently been formed to prove the extent, depth, and value of this lead and its tributaries. In the past hydraulic sluicing methods were employed, the water supply being obtained by way of the Mt. Cameron Water-race from the Mines Department. The lead is too deep (over 100 feet) to be worked economically in that manner.

(c) Thureau's Deep Lead

This lead exists near St. Helens, but likewise has only been worked to a slight extent, and the extent and value of the deposit is unknown.

(d) Tin Ore-bodies

Some of the large size, are known but undeveloped in nearly all tin fields. To thoroughly sample these deposits requires a large staff.

(4) Financial Proposal

The suggested arrangement is that the State Government and the proposers should find £20,000 each. In accordance with the above, this would be devoted to the only possible work which could be carried out in connection with the deep leads viz boring operations. It is probable that attention would be directed to only one lead at a time which indeed would be the most satisfactory arrangement, and it is probable that no more than £10,000 would be expended in one year. The total expenditure of the £40,000 would thus be spread over approximately four years.

(5) Government Representation

The proposal is that the Government should have one representative on a Board in order to supervise all expenditure. In any such Board, I would suggest that the Government have at least equal representation.

(6) The Government outlay to be recouped out of the first profits made out of any area

This arrangement should be strictly adhered to in any agreement. The money received could then, if the Government desired, be applied to developing other areas.

(7) The £40,000 should be expended in developing the tin resources of the State

This sum would probably be inadequate to carry out this important work and I would recommend that it be devoted only to certain favourable areas selected and approved by the Government Geologists.

- (8) The proposers to be responsible for the larger capital to work any payable areas

Unless the State desires to enter into the tin-mining business, this condition should be strictly adhered to, the State taking part merely in the exploratory and developmental work.

- (9) The Government to devote to this purpose the funds it may receive from the Commonwealth for prospecting etc.

This would be certainly one of the numerous ways in which any such money received could be most suitably applied. Until the amount of any such funds, and the conditions attached thereto relating to their application are known, it is impossible to say however, whether this could be carried out.

RECOMMENDATIONS

If the above proposal is to be considered I would recommend that -

- (a) The sum of £20,000 asked for from the State should be made up of four or five annual payments, each annual payment to be made available separately.
- (b) It should be devoted to testing by boring systems of deep leads in the areas mentioned above and boring and sampling lode deposits approved of by the Government Geologists.
- (c) The actual location and objective of the operations should be approved of by the Government Geologists.
- (d) All information obtained during these operations should be made available to the Government.
- (e) The Government have at least equal representation on any Board supervising operations.
- (f) The money provided by the Government be recouped out of the first profits made in working any payable area.
- (g) The Government's participation be only devoted to exploratory and developmental operations and to cease when such are finished, the proposers to find all working capital.

DIRECTOR OF MINES

*credited author
A. M. Reid.*

Mines Department,
HOBART.

21st May, 1926.