

BORING AT MT. STRONACHMONAZITE - TIN

In the early part of the year 1947 an examination was made of several areas in Tasmania with a view to determining whether or not Monazite of an economic grade occurred. During that examination, areas were visited at Yellow Band Creek in the Parsons Hood district, in the Mt. Stronach district, in the Pioneer district and on King Is.,

In that report it was recorded also that the only recorded sales of Monazite were in the years 1943 and 1944 when 32.5 tons and 0.1 ton of Monazite were sold from the Pioneer district for £486 and £2 respectively.

Towards the end of 1947 some boring was done to test the grade of ore available in the Yellow Band Creek area and from 20 bores completed an average grade of 5.03 oz. p.c.y. was obtained for an average depth of 15 feet. The area covered by these bores was approximately six acres in extent.

To further test the possibilities of the Mt. Stronach area some boring was carried out during the period 9th August to 6th December, 1950. During that time 199 bores were completed for a total footage of 3295 feet.

The bore grid was set out along meridional lines with a grid interval of two chains. This interval was selected as the widest interval which could be reasonably expected to reveal the narrow leads such as had already been worked in the district. There have been no extensive areas bored, the boring being regarded as scout bores and was in general only in lines which would have revealed any existing leads containing economic ores.

At the time of the preliminary examination in 1947 several mining leases were in force but only two places were mining operations, on a small scale, in progress. Mr. Geo. Gouland was operating on a 5 acre lease No. 8078/M situated near Ruby Creek on the west side of the Great Forester River and Mr. A. J. Gouland was operating on a 5 acre lease on the east side of the River and about one and a half miles easterly from Mr. Geo. Goulands lease. The potential monazite bearing area lay between these two limits and extend along the Forester River. Both Mr. Geo. and Mr. A. J. Gouland showed me prospects of Monazite in their workings of 1947 and stated that at times the monazite was so plentiful that the tin-concentrates became unsaleable.

The Mt. Stronach area is readily divisible into three sections :-

(1) The Western section covers the comparatively high ground in the vicinity of the old workings situated to the west of the Great Forester River. In this section of the area two leases and one lease application are still in force. These leases cover an area of 15 acres as follows :-

2.

11728/M has an area of 5 acres in the name of F. Hawkes  
 66M/46 " 5 " H. B. Hingsto  
 10M/49 Appn. " 5 " W. J. Jones

Two other leases 8078/M and 47M/41 each of 5 acres, became void as late as 1949.

Some tribute work was being done on lease No. 11728/M during the time that boring was in progress.

(2) The fairly wide and extensive flat through which the Great Forester River flows. This flat had never before been tested to depth.

(3) The Eastern section is of a similar nature to the Western section in its association with the slightly higher ground on which tin mining operations have been carried out. In the eastern section the following mining leases are in force :-

11575/M	a lease of 10 acres in the name of	N. Haas
65M/39	" 5 "	N. Haas
86M/42	" 5 "	N. Haas
7M/43	" 5 "	N. Haas
50M/43	" 8 "	H. A. R. Kruska

#### BORING

The first bore site was selected at a point a few feet to the east of the old workings on lease No. 8078/M and the first line of bores was in an easterly direction from that point. It was intended to continue the line easterly till the Great Forester River was crossed but after crossing the first small creek the ground became shallow. The direction of boring was changed to a northerly line. The shallow ground persisted until the small creek was again approached when a depth of 30 feet was recorded. After crossing the creek, variable depths were recorded with a maximum of 36 feet at the bore site P.7. The cross-section shown by this bore is typical of the country in general. Modifications and variations of material and thicknesses occur but in general the cross-section gives a correct impression of the country.

The recorded section of the bore is as follows:-

<u>Depth Section</u>	<u>Total Depth</u>	<u>Material</u>
3	3	Sand with some wash
6	9	Yellow clayey gravel
1	10	Yellow clayey gravel finer in texture
9	19	Black sand with some clay
17	36	White clayey gravel.

The bottom of this bore was indefinite and the white clayey gravel resembles decomposed granite which should occur as bedrock for the whole of the area.

In many of the bores the upper layers of clayey gravel is cemented to a hardness difficult to penetrate with the hand boring plant but in some bores the material is quite free in nature. In many of the bores there is an absence of the middle section of sand and the transition from Yellow to white clayey gravel is sharply defined.

3.

The northern line of bores marked the eastern boundary of the western section of the area. It was continued till Chinamans creek was reached. In this creek are tailings which are the accumulation from years of sluicing operations at the head of Chinamans creek, by the Mt. Stronach company and from Gills and Thorpes workings. The tailings vary in depth to more than ten feet but are overlying the clayey gravels of the area.

The tailings area was bored in a westerly direction till Ruby creek was reached when this creek and the old workings on either side were tested. The plant was then moved to Chinamans creek in the vicinity of the old Mt. Stronach workings where Mr. G. Roney was operating on tribute on lease 11728/M held in the name of F. Hawkes.

The boring of the Western section of the area has shown that the original workings have covered all the areas where economic grades of tin occurred and that in general terms there is no monazite in that section.

In the vicinity of the Duck Pond in Ruby creek there is an isolated area where a little high grade tin ore occurs, two bores having revealed grades of 14.4 and 5.5 oz p.c.y. over depths of 20 and 18 feet respectively. This apparently is a portion of the lead already worked in the Duck Pond.

In the second section of the area, or that represented by the Great Forester River flat, a line of bores was placed along the northern bank of Chinamans creek from the Ruby creek junction to the river and across it for a distance of ten chains to the high ground. A second line of bores in a southerly direction on the eastern side of the flat was also completed. All these bores revealed only traces of tin and monazite over depths ranging to 20 feet.

In the eastern section of the bored area the following mining leases are still in force :-

Lease	11575/M	for 10 acres	in the name of	N. Haas
	65M/39	5	"	N. Haas
	86M/42	5	"	N. Haas
	7M/43	5	"	N. Haas
	50M/43	8	"	H.A.R. Kruska

These leases are all adjoining one another. From the leased area a small stream flows in a general north westerly direction to meet the Great Forester River near its junction with Chinamans creek. Boring was concentrated on the area in the vicinity of this creek. Old workings and blower holes suggested that there were several small areas of high grade tin ore which had been worked long ago. The only operators at present are the Haas brothers.

The bore results were in general very disappointing but they do suggest the possibility of some local areas of high grade tin ore.

Bores Nos. 6.49 and P50 12 feet and 11 feet deep respectively showed grades of 11.25 and 3.3 oz of tin p.c.y. and suggest that further boring may reveal a lead trending in a north easterly direction.

4.

The four bores Q56, Q57, P57 and P58 show grades of 3.2, 1.8, 1.6 and 6.9 ounces p.c.y. and suggest the possibility of a limited area of low grade tin ore in shallow ground the maximum depth for the bores being 8 feet.

To the south of these positions bores M49 and M50 show grades of 33.5 and 2.5 ounces of tin oxide p.c.y. for depths of 13 feet and 6 feet respectively. This suggests a narrow tin bearing lead trending in a general south easterly direction and may extend to meet a further area of reasonable grade at Bores J57, JK57, K57 and L57 which showed grades of 1.01, 3.55, 19.8 and 4.3 ounces of tin oxide p.c.y.. There is, therefore, the possibility of a narrow lead of tin ore trending across mining lease 50M/43 towards the workings of 86M/42 and possibly into 65M/39.

In estimating the grade of the ground bored, samples were taken at regular intervals during boring, the depth of the section being in general two feet. This however, was occasionally varied in places according to circumstances. The samples were measured at the bore site and were washed to yield a concentrate.

As the investigation was primarily to determine the grade for monazite in preference to that for tin, no attempt was made to clean the concentrate to 70 per cent. and a lower grade was taken. The concentrates were weighed and the grade for the whole bore calculated in the field. Periodically the samples of concentrates were forwarded to the Chief Chemist and Metallurgist in Launceston for analysis and each such sample represented the concentrates from a group of bores which were regarded as being of uniform grade. On receipt of the analyses a correction was made to bring the recorded grades to one of 70% for both tin and monazite.

In conclusion the boring has shown that monazite of an economic grade does not exist within the area and suggests only very limited possibilities for the recovery of tin ore.

Signed: H.G.W. Keid M.Sc. M.A.I.M.M.  
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