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E.L. 6/78 - WINNALEAH - TASMANIA
REPORT FOR THE PERIOD 13TH OCTOBER,
1978 TO 12TH APRIL, 1979.

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OPEN FILE

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INTRODUCTION

This report documents the results of investigations conducted in E.L. 6/78 Winnaleah during the period 13th October, 1978 up until 13th April, 1979, the first six monthly period on this Exploration Licence. The Licence was granted to Kibuka Mines Pty. Limited of 169 Miller Street, North Sydney. Its position in relation to additional areas held by this company is shown on the accompanying location plan.

GEOLOGY

The oldest exposed rocks in the area are the lower Palaeozoic metasediments or Mathinna Beds. These are exposed in the south-west of the Licence, west and north-west of Winnaleah township. The Mathinna beds have been intruded by Lower Devonian granites of the Blue Tier Batholith. These outcrop over wide areas in the north and north-west of the Licence and also in the east and extreme south-east extensions of the Licence.

Cassiterite formed in greisen cappings to these granite masses and has since been eroded and deposited within the Tertiary alluvial sediments. The Tertiary sediments are irregularly distributed in small patches but are more extensive along the eastern boundary of the Licence. Late Tertiary basalt covers these earlier rock units in certain areas and forms a dissected plateau topography in the south-west of the Licence, around and adjacent to Winnaleah township. Minor areas of Quaternary alluvium also exist along the Boobyalla drainage course.

EXPLORATION

Exploration during this initial period of tenure has been confined to field traverses in areas of interest and no drilling has been undertaken at this stage. The regional geology and some of the past information have been appraised and the following targets are tentatively formulated on the basis of geological understanding, previous activity and air photo interpretation.

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MAIN RINGAROOMA LEAD OUTLET

Nye (1925) formulated the concept of the main Ringarooma lead which was supposed to be the ultimate joining of all known leads. Its ancient course was supposed to flow west of Mount Cameron, approximately coincident with the eastern boundary of E.L. 6/78. Several companies have explored in the hope of detecting such a deep rich lead. B.H.P. (Chesnut 1965) drilled four deep holes (approximately 50-60 metres) in this area to test this concept. No worthwhile cassiterite values were encountered and it would seem unlikely that values would be as rich as the well known leads nearer to the source areas. Furthermore, such an occurrence would hardly be viable beneath 50-60 metres of alluvial material. In addition the area is complicated by faulting as an upfaulted granite ridge extends between the Mount Horror and Mount Cameron areas.

It is suggested that an outlet lead containing cassiterite has been upfaulted to a shallow depth in the vicinity of coordinates 570500 m E - 5455500 m N. The Mount Horror - Mount Cameron granite ridge is not present in this area and a lobe of basalt extends northwards towards this area as if infilling a low area in the basement. An east-west trending line of auger holes (approximately 1 kilometre in length) is required initially to test basement configuration in this area, in the hope of detecting such an upfaulted basement depression.

WHITE ROCKS - SIMPSON CREEK AREA

The old workings of the Banca Mine and White Rocks area indicate that alluvial sediments in this region have a potential for cassiterite which was derived from the adjacent Little Mount Horror granite mass. B.M.I. has conducted extensive testing, mostly auger work, in the Simpson Creek area. This previous work needs to be reviewed and collated to assess potential for future work here. There are several small unnamed creeks running off from Little Mount Horror that contain Quaternary alluvium that should also be included in this review of past data, before any drilling activities could be initiated.

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FARRELLY-FIDDLER CREEK

Old workings are located in Blackboy Creek in the extreme south-eastern extension of the Licence area. This area and adjacent areas are held under mining lease tenure by local operators, but many of the adjacent creeks such as Fiddler, Farrelly and Firth Creeks are held as part of the Exploration Licence. These creeks drain the Mount Paris granite mass which is a high level intrusive responsible for the shedding of large amounts of tin. These creeks should be inspected, to see if they contain alluvial material amenable to testing. Access would be a problem as most of this area is covered by dense rain forest. Hopefully the lower sections of Farrelly-Fiddler Creek are unmined and may contain cassiterite dropped at the break slope beneath alluvial cover. At best these areas could contain only a small mine.

WARRENTINNA GOLD

Small areas have been quarried for gold by old time operators in the Mathinna Beds several kilometres north-east and east of Warrentinna. The prospects for sufficiently large gold bearing veins do not appear to be encouraging as past activity has been on a limited scale. The areas could be inspected to determine if future work is warranted. Surface panning and sampling or geophysics followed by diamond drilling in areas of interest might be the only way to test for occurrences as the Mathinna Beds are poorly outcropping in this area. This area can only be considered to have a low priority, and will involve "grass roots" exploration.

DRAINAGE CHANNELS OFF LITTLE MOUNT HORROR

There are several drainage channels that contain Tertiary sediments and possibly economic cassiterite that extend out from the Little Mount Horror granite mass in the north of the Licence. In particular old alluvial workings on the Tomahawk River course in the north of the Licence require investigation and possibly testing with percussion drilling. There are many rectilinear drainage channels within the granite body which also contain shallow alluvial fill. The potential

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for cassiterite within these areas is unknown requiring at least some testing, keeping in mind that the availability of water to these areas may have curtailed any past activities. The difference in structural setting and the tectonic history of the Mount Horror block is still unresolved however a clearer understanding of past events might aid or alter the understanding of potential for alluvial cassiterite occurrences in this area.

QUARTZ - TUNGSTEN VEINS EAST OF MOUNT HORROR

A wide granite/Mathinna contact metamorphic zone exists to the east of Mount Horror. Such a zone indicates a buried sub-surface granite mass. Quartz-veins with a potential for containing tungsten have been investigated in the Mount Horror region, just beyond the eastern boundary of the Licence; however, no worthwhile discoveries have been made. There is little empirical evidence to recommend the area as containing quartz-tungsten veins and the area is rugged and poorly accessible for mining and exploration purposes. The geological setting alone indicates that potential possibly exists. Some stream sediment sampling of creeks draining this area should be initiated to test this concept. Initially only a limited program is warranted, without incurring large expenditure, as this is an area of grass roots type scope having a low priority.

BOOBYALLA RIVER FLATS

There is a wide area of river flats containing Quaternary/Tertiary (?) alluvial material traversed by the Boobyalla River and centred on coordinates 568500 m E - 5455500 m N. From aerial photos the locality shows up as a low area overlying the shallow granite basement and may have collected alluvial cassiterite and gold over this wide area. Auger drilling to test for basement configuration followed by percussion drilling in selected areas is required to test this area of unknown potential.

LITTLE MOUNT HORROR GRANITE

Within E.L. 6/78 there are no significant lode tin prospects exposed and the likelihood of locating a shallow buried greisenised cusp appears remote. Finer grained granites of the Little Mount Horror area are thought to represent chilled margins below what was once a more extensive mineralised roof envelope to the granitic mass. The likelihood that small weakly mineralised pockets of greisen or altered granite still remain appears remote; however, several samples of any prospective fine grained granite could be taken during the course of normal field work.

SUMMING UP

The appraisal of the potential of this area is still in its initial stages. Targets appear to be small or of unknown potential and the past work and activities need to be collated. It is recommended to proceed with evaluation of the potential of one or more of the alluvial tin prospects. If any of these are prospective they are more likely to be developed and provide support or incentive for additional testing.

REFERENCES

- Chesnut, W.S., 1965, Report on Ringarooma Deep Lead Tin Prospecting North-east Tasmania: for B.H.P. Co. Ltd. open file Department of Mines, Tasmania.
- Nye, P.B., 1925, The Sub-Basaltic Tin Deposits of the Ringarooma Valley: Department of Mines Tasmania Geol. Surv. Bull. No. 35.

