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TASMANIA MINES LIMITED

EXPLORATION LICENCE 39/89

ANNUAL REPORT FOR 1993

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on behalf of

MCKEOWN MINING PTY LTD

for

TASMANIA MINES LIMITED

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## 1 INTRODUCTION

Exploration Licence 39/89 was originally acquired on 23rd February 1990. The Licence covers an area of 9 square kilometres to the west of the Blythe River and lies about 30 kilometres south of Burnie: see Figure 1. Access to the area is principally by way of the Blythe Road from the Upper Natone Forestry Commission Reserve. There are several old forestry tracks which provide access throughout the Licence but access to most of the area is by foot.

During 1993, a good, all weather road was constructed by Tasmania Mines Ltd (Tasmines) from the Kara No 2 South mine, on mining lease 20M/91, to connect with Rogetta Road. The prime intent of this new road was to allow easier and more economic cartage of ore from Kara No 2 South to the Kara No 1 mill where it is processed. This new link road passes directly over the Kara No 2 Main orebody.

Vegetation on the Licence is mainly buttongrass with eucalypt forest both in plantations and as regrowth.

Tasmines is continuing a program of evaluation of the Kara No 2 skarns with the aim of bringing the orebodies into production where it is economically feasible to do so. In 1993, routine mining commenced at Kara No 2 South.

Magnetite product from Kara No 2 South is sold in lump form for ferromanganese and ferrosilicon production, and as fines mainly as feed for steel and cement production. The fines are also used in two specialty applications. The first is as feed to Australian Paper's Direct Alkali Reduction Process (DARS), which is an anti-pollution process which reduces the emission of alkalis to the environment. The second is as ragging for the Kelsey jigs which have recently been commissioned at the Renison tin mine.

During 1993, the principal aim of Tasmines' exploration effort on EL39/89, RL9001 and the Kara Consolidated Mine Lease was focussed on evaluating the data which had been collected since work in the area commenced in the early 1970s. The appraisal of that work is presented in two accompanying reports prepared by the author of this report:

"A review of the geology of the Kara area"

and

"Gold in the Kara area".

These reports are a summary of the present understanding of the geology of the Kara area and present some fresh perspectives regarding the structure of the deposits. These perspectives are important in establishing priorities for the continued exploration of EL39/89.

Some specific activities relating to EL39/89 alone were undertaken during the year and are dealt with in this report.

## 2 TENURE

Exploration Licence EL39/89 was granted to Tasmines on the 23rd of February 1990 following application under ETA No 120. The location of the Licence is shown in Figure 1. The Licence falls entirely within the boundaries of an expired Exploration Licence, EL 17/68, which was formerly held by Tasminex. Three Mining Leases had been applied for by Tasmines in 1987: 81M/87, 82M/87 and 87M/87. The applications for these Leases were withdrawn following the granting of EL39/89 to Tasmines.

At the date of granting, the area covered by EL39/89 was mostly classified as Crown Land with the balance being private land. On the 11th of May 1992, Tasmines was informed that most of the Crown Land had been reclassified as Multiple Use Forest Land with an area in the western part of the Licence being classified as a Recommended Area for the Protection of Species.

An application for the granting of a Mining Lease was made in December 1991 and, on the 17th September 1992, Mining Lease 20M/91 was granted to Tasmines, effective from the 1st of April 1992, for a term of 5 years. This Lease, which has an area of 38 hectares, covers the Kara No 2 South orebody.

## 3 EXPLORATION AIMS

As pointed out in last year's report, when EL39/89 was granted, the aims of the exploration effort were:

- to estimate the tonnage and grade of each of the Kara No 2 Zones,
- to determine the metallurgical characteristics of Kara No 2 Zones by treating bulk samples of the ores in the Kara No 1 mill,
- to determine whether, on a commercial basis, the Kara No 2 Zones could provide ore feed for the Kara No 1 mill.

In 1992, the exploration aims were updated. The principal priorities now are to explore for:

- magnetite, especially magnetite which meets commercial specifications for special applications,
- tungsten as scheelite,

- tin, although tin in skarns often occurs as metallurgically problematic tin silicates,
- gold.

The recent review of the geology of the Kara area, including EL39/89, has not resulted in a change to these exploration aims.

#### 4 KARA NO 2 EAST

Twenty-one percussion drill holes were drilled into the Kara No 2 East orebody during 1992: see Table 1 below. The positions of these drill holes were not known at the writing of last year's report, nor were the samples able to be found. An extensive search at during 1993 has solved both these problems and the samples are now available for analysis, which will be undertaken in the coming year. See Figure 2 for a sketch plan of the relative positions of the percussion holes.

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TABLE 1  
KARA NO 2 EAST  
PERCUSSION DRILL HOLES  
COMPLETED TO 23RD FEBRUARY 1993

		METRES DRILLED	
69 to 90	Kara No 2 East	71.3m	1992

Note: drill holes numbered 1 to 68 were drilled at Kara No 2 Main and Kara No 2 South.

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Following the receipt of the analyses of the percussion samples a bulk sample from this deposit will be mined, and processed in the Kara No 1 mill.

Previous work at Kara No 2 East indicated the existence of a resource of high grade magnetite with low silica content: limited surface sampling returned a result of 66% Fe and 0.5% SiO<sub>2</sub>.

#### 5 ASPECTS OF THE EXPLORATION OF EL39/89

A complete description of the geology of EL39/89 will not be presented here. For such descriptions refer to last year's report (McKeown, 1993) and the recent review (McKeown, 1994a) mentioned above.

Rock exposures on EL39/89 are limited due to extensive buttongrass and forest cover. However, examination of the available exposures, combined with a review of available data, has allowed the following comments to be made.

The Kara No 2 magnetite skarns all appear to have formed in roof pendants in the Housetop Granite. As such, they are unlikely to contain economic concentrations of scheelite which is only known in the Kara area in skarns which form in sedimentary rocks adjacent to, but some distance from, the granite. The Kara No 2 skarns are massive magnetite in part and, so, are prospective sources of high grade iron ore. Testing of the skarns for this purpose will continue in the coming year.

Exposed parts of the Housetop Granite contain narrow greisen veins in places. The extent of these veins is not known. Such veins are possible sources of cassiterite and an concentration of greisen veins, or a more extensive zone of greisenised granite are targets for exploration. Systematic sampling of greisen veins will be undertaken in the coming year to determine whether they are stanniferous.

The search for gold on EL39/89 should continue. Gold has been shown to exist in the Kara North area (McKeown 1994b) and was reported from the vicinity of Sutton's Skarn. The possibility of the existence of economic concentrations of gold remains an open question especially when the unreliable nature of the analyses received so far is taken into account.

#### & CONCLUSION

Exploration of EL39/89 in the next year will continue in accordance with the exploration aims expressed above. Priorities for the year will be to

- obtain a bulk sample of ore from Kara No 2 East,
- carry out surface sampling of Kara No 2 Main to determine its suitability as a source of iron ore,
- test greisen veins in the Housetop Granite for tin, and
- continue the search for gold based on surface rock sampling and utilising a reliable assay method.

## REFERENCES

McKeown, M.V., 1993. Exploration Licence 39/89, annual report for 1992. Tasmania Mines Ltd unpublished report.

McKeown, M.V., 1994a. A review of the geology of the Kara area. Tasmania Mines Ltd unpublished report.

McKeown, M.V., 1994b. Gold in the Kara area. Tasmania Mines Ltd unpublished report.

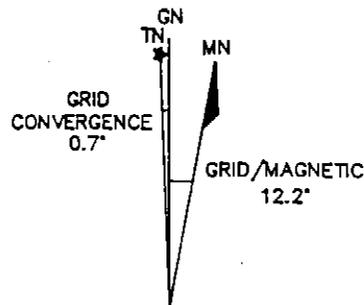
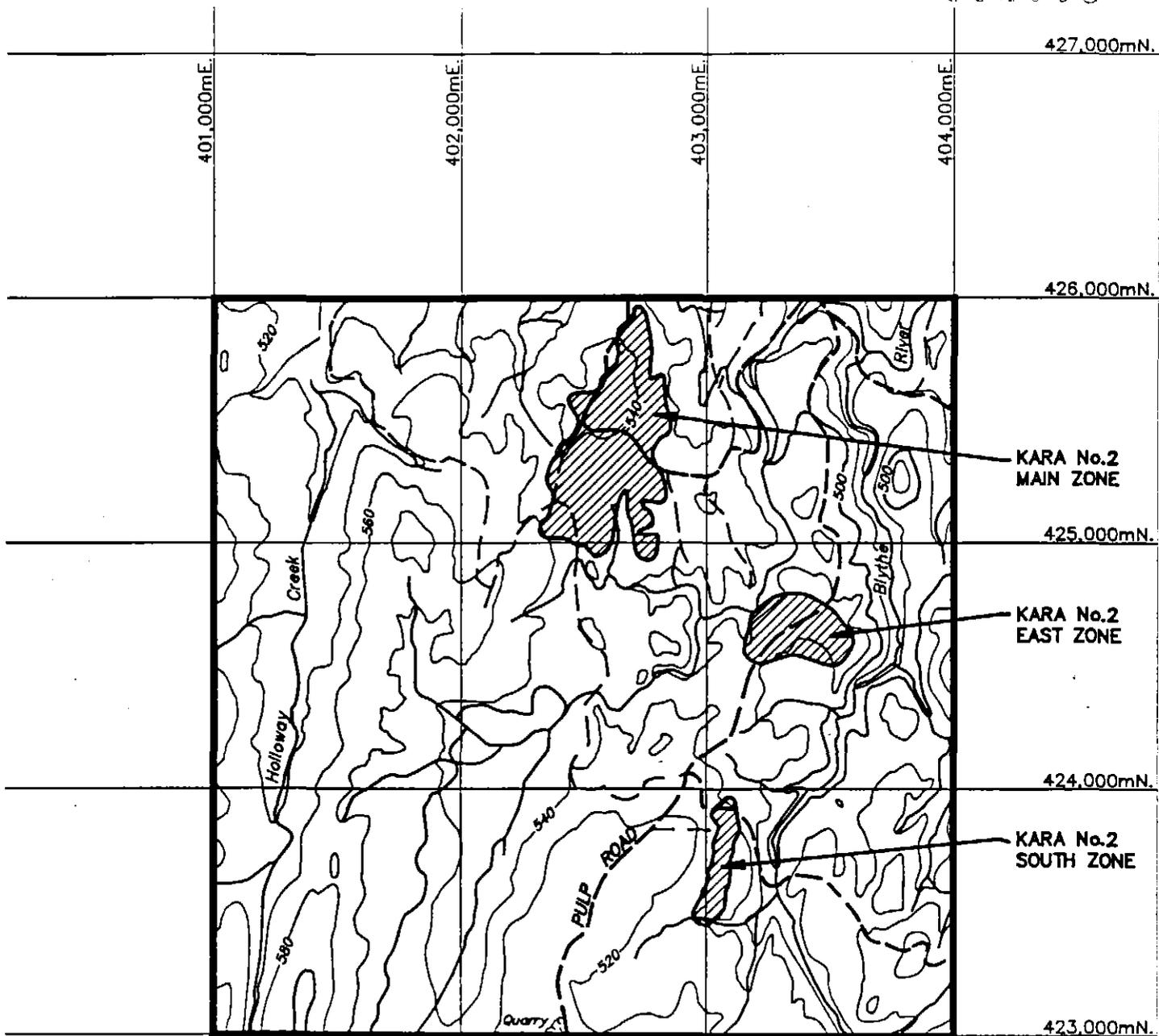


FIGURE 1: Location of EL39/89

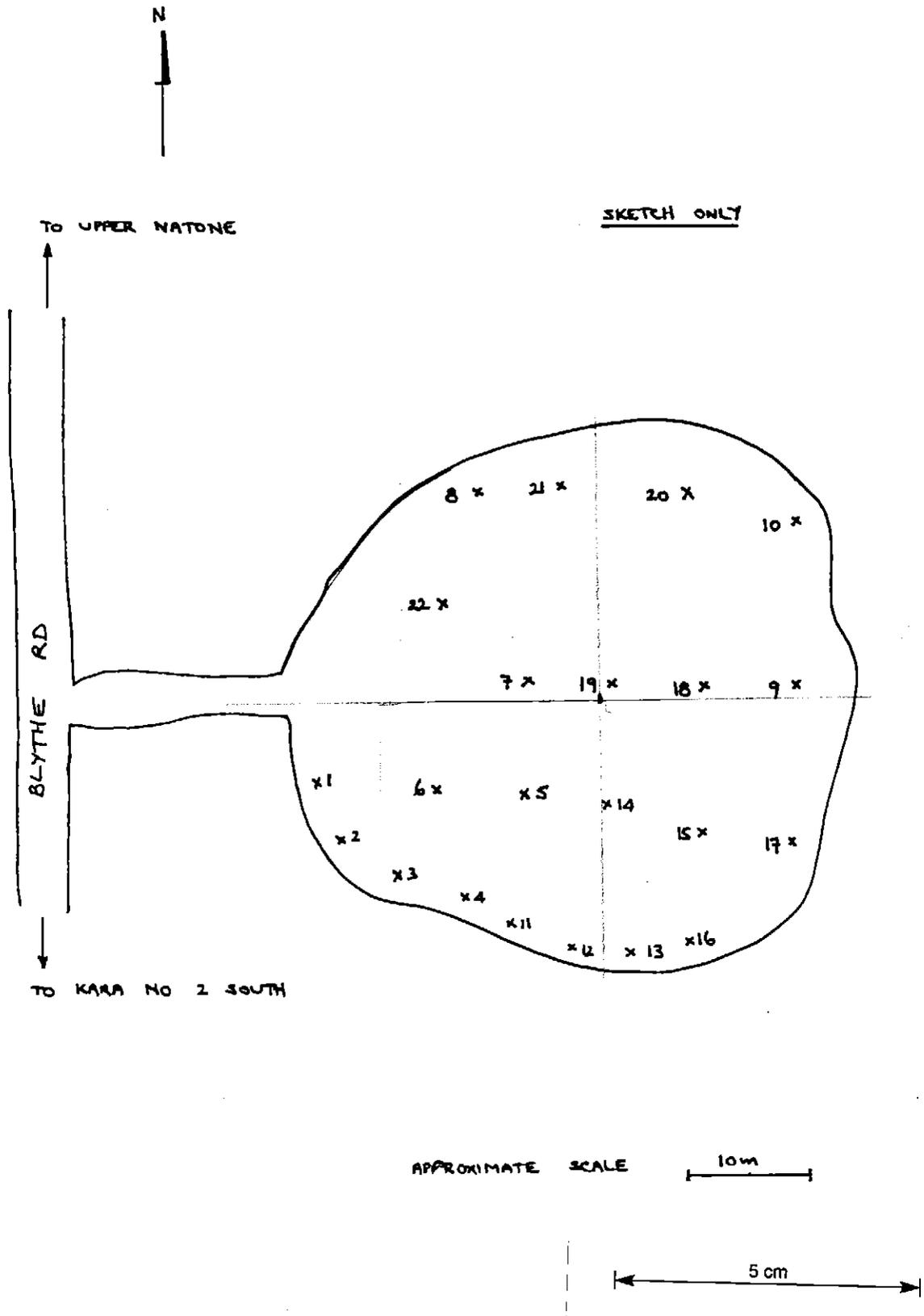


FIGURE 2: Kara No 2 East - location of percussion samples