EXPLORATION LICENCE 8320
"COLES HILL NORTH"
NORTHERN TERRITORY

ANNUAL REPORT
FOR THE PERIOD
24 NOVEMBER, 1994 TO 23 NOVEMBER, 1995

Prepared for
Roebuck Resources NL
by
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SUMMARY

Exploration Licence 8320 "Coles Hill North" covers an aeromagnetic anomaly which has been interpreted as a fold repeat of a base metal and gold bearing sequence which outcrops at Red Rock Bore a few kilometres to the south.

Previous drilling at Red Rock Bore has shown that mineralisation is hosted within a sequence of mafic, felsic and aluminous granulites and calc-silicate rocks of the Lower Proterozoic Strangways Metamorphic Complex.

Surface geochemical (lax) sampling along the southern boundary of EL 8320 indicated anomalous base metal geochemistry. These soils are considered to have been derived from areas immediately to the north, i.e. the area of the magnetic anomaly.

In late 1995 a Farmin/Joint Venture Agreement was executed between Roebuck Resources NL and Pasminco Australia Limited ("Pasminco") whereby Pasminco can earn majority equity in EL 8320 as well as EL 8125 to its immediate south.

Pasminco has completed literature studies and is currently reprocessing the BMR aeromagnetic data. Ground magnetic and soil surveys which will be followed up by drilling are planned for 1996.
1. INTRODUCTION

The Coles Hill North Exploration Licence 8320 is located within the area covered by the Burt 1:100,000 map sheet and is approximately eighty kilometres north of Alice Springs in the Northern Territory (Figure 1).

The Exploration Licence area comprising 3 graticular blocks was granted on 24 November, 1993 for a term of 4 years. It covers the area of and around an anomalous aeromagnetic feature which is thought to possibly represent a fold repeat of the magnetite rich Arunta sequence which hosts the base metal, gold and silver mineralisation at the Coles Hill Prospect to the south.

During 1995 a Farmin/Joint Venture agreement was completed whereby Pasminco Australia Limited ("Pasminco") can earn a major equity by exploration expenditure on adjacent Exploration Licences 8320 "Coles Hill North" and 8125 "Coles Hill" (Figure 2). Details of the work completed and planned by Pasminco have been supplied by M. Randell (Contract Geologist for Pasminco).

2. GEOLOGY

The Central Australia basement consists of an assemblage of crystalline igneous and metamorphic rocks which comprises the Arunta orogenic domain. The regional geology of the Arunta Block is described in Shaw, 1990 and the general geology of the environs of EL 8320 is discussed in Tipper, 1969.

No rocks are known to crop out within the area of EL 8320 "Coles Hill North". Rocks of the Strangways Range Metamorphic Complex crop out to the east at the western end of the Strangway Range and also to the west at the Coles Hill radio tower.

The Red Rock Bore area to the south on EL 8125 "Coles Hill" remnants of Tertiary pisolites and Waite Formation carbonates occur as thin veneers on the basement. Such remnants may occur beneath the soil cover of EL 8320.

3. SOIL GEOCHEMISTRY

During 1994 a number of lag samples were collected from surface soils in the southwestern part of EL 8320 (Warne, 1994). Analytical results from these samples indicated the area to be anomalous in base metals. These results tend to support the interpretation of the Coles Hill North Anomalous Magnetics as being related to a fold repeat of the mineralised sequence of the Coles Hill Prospect near Red Rock Bore on EL 8125 to the south. The lag samples were considered to contain a substantial component of locally derived material.
4. THE COLES HILL NORTH MAGNETIC ANOMALY

In 1965 the Bureau of Mineral Resources completed a detailed aeromagnetic survey over the Red Rock Bore area which extended northwards to cover most of the area of EL 8320. The magnetic contours, together with interpretation were presented in BMR Report No. 136 by Tipper, 1969. These data appear as Figure 3 of this report.

Tipper concluded that the Coles Hill North magnetic anomaly resulted from at least two magnetic bodies centred about 150 metres vertically below the surface. Tipper also suggested the stratigraphy to be equivalent to that at the Coles Hill Prospect near Red Rock Bore.

5. PASMINCO AUSTRALIA LIMITED EXPLORATION

During the period 28 September to 23 November, 1995 Pasminco carried out a review of published and unpublished literature, including reports of previous company exploration relevant to the Coles Hill North area.

The raw digital aeromagnetic data from the BMR were acquired and image reprocessing commenced.

6. PROPOSED 1996 EXPLORATION PROGRAMME

Pasminco has stated that 1996 exploration will include:

- detailed interpretation of the reprocessed aeromagnetic data to identify prospective areas;
- ground magnetic surveys;
- soil geochemistry; and
- drill testing of target identified.
7. EXPENDITURE DURING THE PERIOD 24 NOVEMBER, 1994 TO 23 NOVEMBER, 1995

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8. REFERENCES


