

**MINERAL HOLDINGS AUSTRALIA PTY LTD**

**EXPLORATION LICENCE 12/2008  
REDPA**

**PARTIAL RELINQUISHMENT REPORT  
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## **ABSTRACT**

EL12/2008 was applied for on 17 January 2008 and granted to Mineral Holdings Australia Pty Ltd (MHA) on 23 February 2009 for a period of 5 years, over an area of 200km<sup>2</sup> in north-west Tasmania. The Licence covers Category 5 Industrial Minerals and Semi-Precious Gemstones.

The Licence, along with EL13/2008 and EL14/2008, was applied to cover potential resources of dolomite, dolomitic limestone and especially limestone in the Smithton Dolomite and the underlying Black River Dolomite within the Smithton Basin of north-western Tasmania. Of particular interest was the possibility of high-grade limestone lenses occurring near the top of the dolomite sequence.

Although the potential extent of the dolomite/limestone horizon is very extensive, the carbonate rocks are generally eroded down to the water table and only occur in large, flat areas with a thin, black soil cover. Detailed mapping and traversing failed to locate any new outcrop areas and thorough evaluation would involve extensive RAB drill hole traversing. The potential for high-grade limestone near the top of the sequence was also downgraded after detailed drilling and costeaming of the limestone horizon at Montagu (EL15/2005) showed the limestone was finely interbedded with shale bands.

A 167km<sup>2</sup> area of the Licence was relinquished in February 2013 and a small area of 33km<sup>2</sup>, covering possible extensions of the Tertiary limestone within RL9/1997, was retained to allow further evaluation of that resource.

Mapping around the basalt margin failed to locate any outcrops of Tertiary limestone extending out from under the basalt as in RL9/1997, although to the north of RL9/1997 there was a possibility of Tertiary limestone under the soil cover to the west of the town of Redpa and 23km<sup>2</sup> of the exploration licence has been retained to test this possibility.

To the south of RL9/1997, the Tertiary limestone does not occur under soil cover or beneath the basalt, consequently a 10km<sup>2</sup> area of EL 12/2008 has been relinquished in February 2016.

## 1.0 INTRODUCTION

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Although the potential extent of the dolomite/limestone horizon is very extensive the carbonate rocks are generally eroded down to the water table and only occur in large flat areas with a thin black soil cover. Detailed mapping and traversing failed to locate any new outcrop areas and thorough evaluation would involve extensive RAB drill hole traversing. The potential for high-grade limestone near the top of the sequence was also downgraded after detailed drilling and costeaming of the limestone horizon at Montagu (EL15/2005) showed the limestone was finely interbedded with shale bands.

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Mapping around the basalt margin failed to locate any outcrops of Tertiary limestone extending out from under the basalt as in RL 9/1997, although to the north of RL9/1997 there was a possibility of Tertiary limestone under soil cover to the west of the town of Redpa and 23km<sup>2</sup> of the exploration licence has been retained to test this possibility.

To the south of RL9/1997, the Tertiary limestone does not occur under soil cover or beneath the basalt, consequently a 10km<sup>2</sup> area of EL12/2008 has been relinquished in February 2016.

## 2.0 GEOLOGY

The geological sequence within the retained 33km<sup>2</sup> of EL12/2008 consists of a basement of Proterozoic orthoquartzites of the Rocky Cape Group in the south, overlain unconformably by dolomite and dolomitic limestone of the Smithton dolomite in the area of RL9/1997, and by turbidite rocks and siltstones dipping at about 30 degrees to the north.

A hard, dense Tertiary limestone occurs as an essentially flat sheet from 10 to 30 metres thick, lying unconformably on the basement rocks and immediately below an extensive area of Tertiary aged basalt. The heat from the basalt has case hardened the limestone, converting it from a lime sand to a hard dense marble.

The Tertiary limestone does extend underneath the basalt to the north-west of RL9/1997 but not under the basalt or the soil cover to the south and west of RL9/1997 so a 10km<sup>2</sup> area which covers this south-west region of EL12/2008 has been relinquished.

### **3.0 EXPLORATION AND EVALUATION**

MHA's original aim was to search for potential limestone horizons in the stratigraphic upper part of the Smithton Dolomite, similar to the three horizons located within EL15/2005 at Montagu. However, detailed costeaning and drilling of these horizons at Montagu was disappointing as the limestone was shown to be interbedded with 50 to 60% thin shale interbeds and completely unsalable.

The Precambrian/Cambrian limestone is therefore no longer a valid target and 167km<sup>2</sup> of the Licence area was relinquished in February 2013. However, high quality Tertiary limestone within RL9/1997 is a valid target as it is believed to extend into the Licence area, below soil and basalt cover in the northern section of the retained 23km<sup>2</sup> of EL12/2008.

The southern 10km<sup>2</sup> area of EL12/2008 shown in Figure 1 is believed to contain no limestone consequently this area has been relinquished.

### **4.0 ENVIRONMENT**

All work to date has consisted of foot and vehicle traversing and no environmental disturbance has been caused.

### **5.0 REFERENCES**

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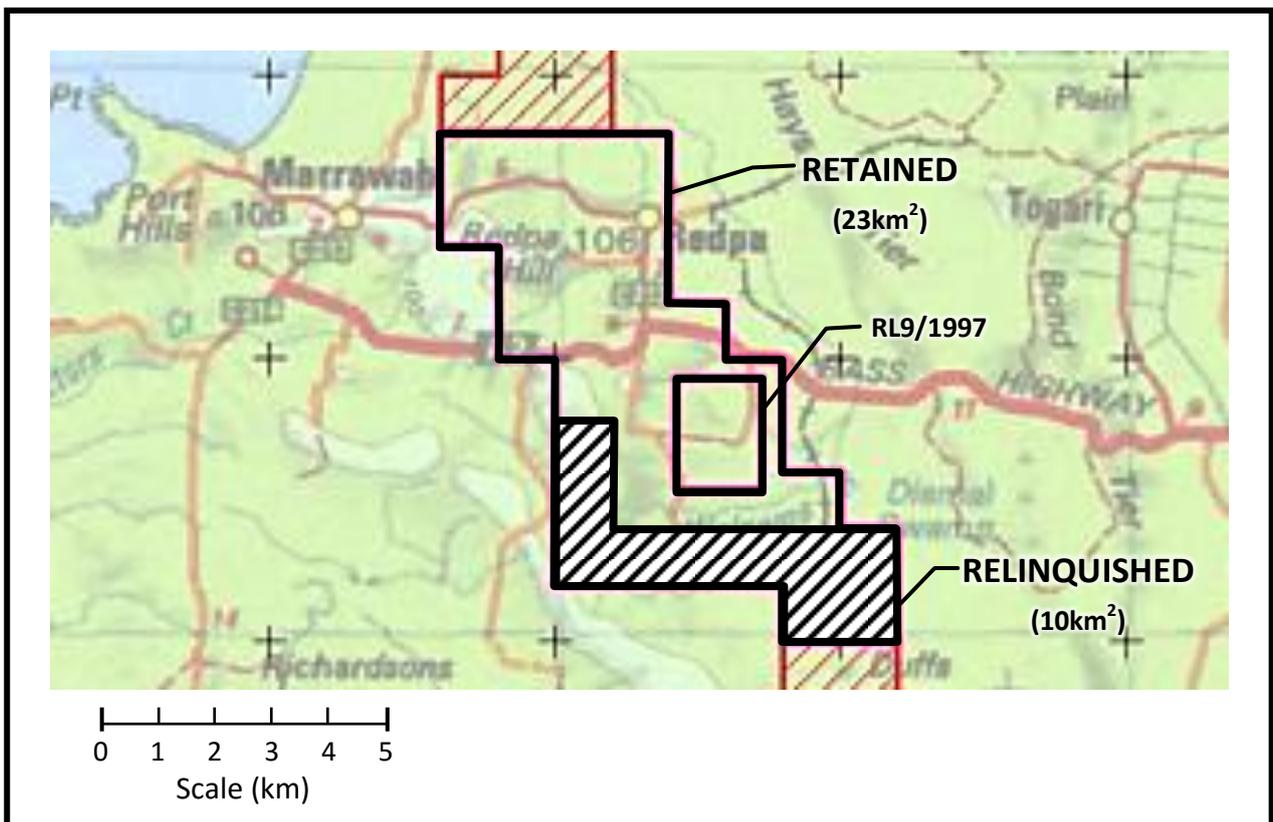
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## 6.0 KEYWORDS

Smithton Dolomite, Black River Dolomite, Redpa, Dolomite resources.



**Figure 1: EL12/2008 Redpa Location Diagram (showing areas relinquished and retained)**