MINERAL HOLDINGS AUSTRALIA PTY LTD

EXPLORATION LICENCE 12/2008
REDPA, NW TASMANIA

ANNUAL REPORT ON EXPLORATION
TO JANUARY 2010

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ABSTRACT

This report gives a review of the work carried out by Mineral Holdings Australia Pty. Ltd. over the first year of tenure of EL 12/2008.

The licence covers 200 sq km following the westernmost outcrops of the Smithton Dolomite within the Smithton Trough. The Licence was applied for on 19th May 2008 and granted for a period of five years from 23rd February 2009.

During initial exploration and sampling of EL 15/2005 near Montague River Bridge MHA located at least three zones of high grade limestone among the Smithton Dolomite and this licence and two others were then taken out to explore for additional limestone horizons. The Smithton dolomite is very poorly exposed throughout the Smithton Trough and additional limestone horizons could easily have been missed in previous mapping.

Because of the extremely poor outcrop of the dolomite detailed exploration of the area will be very difficult. However there is increasing interest in deposits of high grade cryptocrystalline limestone and discussions have continued with a number of Australian and Overseas groups to interest them in joint venture exploration of the Licence.

The outcrop is so poor that initial exploration on the Licence will be to traverse all roads, creeks, fence lines and drains to locate any unmapped outcrops. At the same time all water bores in the area will be located to see if any waste drill cuttings are still available. Some form of stratigraphic drilling will then be necessary if limestone horizons are located.

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1.0 INTRODUCTION

EL 12/2008 was applied for by Mineral Holdings Australia Pty Ltd on 19th May 2008 and was granted on 23rd February 2009 for a period of 5 years to 23rd February 2014. This Annual Report covers all exploration work carried out to date.

The licence covers 200 sq km following the poorly exposed trend of the westernmost horizon of the Smithton Dolomite over a distance of some 40 Km from Swan Bay Plains in the north through Redpa and to Duffs Flats in the south. The aim was to discover if similar high grade limestone resources existed within the dolomite horizon as MHA have recently discovered close to Montague.

During initial exploration near Montague River Bridge Mineral Holdings Australia Pty. Ltd located one sample (sample 10) of high grade limestone among the dolomite. Subsequent follow up sampling and mapping located an horizon of limestone up to 100 metres in width and at least 500 metres in length in the northern section of the licence. Follow up sampling located two other poorly outcropping horizons of high quality limestone to the west and several kilometers to the south west. Outcrop of the Smithton Dolomite throughout north-east Tasmania is very poor and other limestone horizons within the dolomite easily could be present under the shallow cover.

2.0 GEOLOGY

The Smithton Trough is a triangular basin of Eo-Cambrian rocks in north west Tasmania. It extends for 40 Km along the coast westwards from Circular Head and extends south for 50Km to the Arthur River. The geological sequence is

CAMBRIAN - **Dundas Group equivalents** Turbidites in Christmas Hills area

EO-CAMBRIAN - **Smithton Dolomite** Extensive banded to massive dolomite with minor dolomitic limestone and limestone at Montague.

Crimson Ck. Correlates Turbidites and Basaltic lavas

Black River Dolomite dolomite with minor mudstone and chert. Upper section contains stromatolite fossils

Forest Conglomerate Orthoquartzite and basal conglomerate

UNCONFORMITY WITH UNDERLYING PRE-CAMBRIAN

The Smithton Dolomite is from 700 to 1200 m in thickness and a series of broad open folds exposes the horizon a number of times across the basin. However the actual outcrop is very poor. The carbonate rock is easily dissolved down to the water table and the presence of Smithton Dolomite is usually marked by a broad flat plain with a thin black soil cover lying almost at the water table. Most of the dolomite exposures are restricted to

drains that have been cut to drain the swampy areas underlain by the carbonate rocks. Where it is exposed the Smithton dolomite is a very fine grained hard and dense marble.

Within EL 12/2008 the outcrop is extremely poor but the Smithton Dolomite appears to occur in a long narrow partly overturned syncline running from Swan Bay Plains in the north through Redpa and to Duffs Flats in the south. A distance of almost 40 Km. The Smithton Dolomite outcrop is wedged between a broad and shallow anticline running from West Montague in the north through Nineteen Mile Hill, Hays Tier and Bond Tier in the south and the Proterozoic Basement rocks along the coast. The syncline containing the Smithton Dolomite is steeply overturned in the south below Redpa but broadens out to the north around Swan Bay Plain. Here the fold is strongly asymmetric with the eastern limb dipping shallowly and the western limb still steeply overturned.

A small inlier of Precambrian rock occurs within the Anticline to the south of Harcus Hill and this dome exposes a large outcrop of the Black Hills Dolomite which is a second dolomite horizon underling the Smithton Dolomite and rocks which correlate with the Crimson Creek Formation.

3.0 EXPLORATION AND EVALUATION

There has been a long history of exploration by MHA and a series of joint venture partners for high grade dolomite in several areas of the Smithton Trough. After several trials the search concentrated on the Trogari area in the upper reaches of the Montague River. While looking for extentions of the Trogari dolomite closer to the coast MHA located three separate horizons of high grade limestone just to the south of the township of Montague. The marketability of the Smithton Trough carbonates would be greatly enhanced if significant quantities of good grade limestone were present. MHA therefore applied for three Exploration Licences to cover all known dolomite exposures within the Smithton Trough and allow systematic exploration for additional limestone resources.

Because of the extremely poor outcrop of the dolomite detailed exploration of the area will be very difficult costly and time consuming and the help of a joint venture partner will be essential.. However there is increasing interest in deposits of high grade cryptocrystalline limestone and discussions have continued with a number of Australian and Overseas groups to interest them in joint venture exploration of the Licence.

In the first instance initial exploration on the Licence will be to traverse all roads, creeks, fence lines and drains to locate any unmapped outcrops. At the same time all water bores in the area will be located to see if any waste drill cuttings are still available. Some form of stratigraphic drilling will then be necessary if limestone horizons are located.

4.0 CONCLUSION

MHA have located three distinct areas with significant thickness of limestone within the Smithton Dolomite near Montague in north- west Tasmania. EL12/2008 (and EL's 13/2008 and 14/2008) has been taken to allow the search for additional limestone horizons to continue throughout the Smithton Trough. A joint venture partner is just about in place and detailed exploration work will commence shortly.