Harts Range Jinka/Mt Riddoch Regions
Partial Relinquishment Report
For
EL24360
GR-078/12
15th February, 2017

Closure of drill hole after sampling EL24360

TARGET COMMODITY: GARNET
Map Sheet:  

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcoota</td>
<td>1:250,000</td>
</tr>
<tr>
<td>Delny</td>
<td>1:100,000</td>
</tr>
</tbody>
</table>

Author: John Baxter
15th February, 2017
CONTENTS

CONTENTS .................................................................................................................................2
EXECUTIVE SUMMARY/ABSTRACT ..........................................................................................3
INTRODUCTION ..........................................................................................................................4
GEOLOGICAL SETTING – EXPLORATION RATIONALE ...........................................................6
CONCLUSIONS/RECOMMENDATIONS .......................................................................................9

FIGURES

Figure 1 Location Map of Harts Range Garnet Project ..............................................................4
Figure 2 Tenements remaining in GR07/98 after the current reductions ....................................5
Figure 3 EL24360 showing area retained blocked out and area relinquished clear .....................6
Figure 4 Location of Uranium, heavy mineral and water exploration EL24360 .........................8

TABLES

Table 1 Actual Expenditure on tenements up to 2016 .................................................................5

APPENDICES
EXECUTIVE SUMMARY/ABSTRACT

Australian Abrasive Minerals Pty Ltd propose to relinquish part of EL24360 being part of the Harts Range Garnet Project (GR078/09). The tenement is located along the valley of the Plenty River and covers 61 blocks. Australian Abrasive Minerals acquired the Harts Range Garnet Project from Matilda Zircon Ltd in 2009. It is proposed to retain 35 blocks of EL24360 covering approximately 109km².

This report is the partial relinquishment report for EL24360. It is proposed to relinquish quadrants 2483 S,T &U; 2484 Q, R, S & T; 2555 T, U, W, X, Y & Z and 2556 R, S, T, V, W, X & Y. The area covered by the relinquishment area has been explored in a reconnaissance manner for garnet and uranium without success. Australian Abrasive Minerals has concluded that it has no specific further interest in this portion of the tenement as it does not form part of the Harts Range Garnet Project which includes the retained portion of EL24360.

Work Completed

The data supplied to Australian Abrasive Minerals covered by the relinquished portion of EL24360 indicates that, other than a brief assessment of the uranium potential, a single exploratory drill hole for heavy minerals and minor exploration for water no detailed work has been undertaken.

This report has been prepared by John Baxter on behalf of Australian Abrasive Minerals Pty Ltd. The text of the report is owned by John Baxter, the copyright of the data belongs to AAM. All copyright owners authorise the Minister for Primary Industry and Resources and the DPIR department to copy and publish information in this report when the tenement expires.
INTRODUCTION

The Harts Range Garnet Project consists of four tenements that have previously been grouped (GR078/09) in terms of area and for the purposes of reporting. The project and tenements are located about 220km east of Alice Springs on the Plenty Highway (Figure 1). The tenements are within the Mt Riddoch Pastoral Lease. AAM has surrendered EL24378 in 2016 and EL30138 in 2017 leaving EL24360 and EL28696 within the group (GR078/9). EL 24360 was granted in 2006 and has been the subject of extensive exploration identifying a garnet resource which forms the core of the Harts Range Garnet Project and now covered by ML28614 which was granted to AAM in 2013.

![Figure 1 Location Map of Harts Range Garnet Project](image)

EL24360 has also been the subject of extensive water exploration which has contributed to the completion of a feasibility study on the Harts Range Garnet Project. In 2015-2016 a short water exploration drilling project was undertaken.
Table 1 Actual Expenditure on tenements up to 2016

<table>
<thead>
<tr>
<th>Tenement</th>
<th>Previous Tenement</th>
<th>2012 Expenditure</th>
<th>2013 Expenditure</th>
<th>2014 Expenditure</th>
<th>2015 Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL24360</td>
<td></td>
<td>$548,341</td>
<td>$55,130</td>
<td>$32,744</td>
<td>$113,558</td>
</tr>
</tbody>
</table>

Expenditure on the exploration is summarised in Table 1.

AAM has concluded that the following quadrants of the EL have no prospectivity for garnet, uranium or water and have surrendered the following quadrants 2483 S,T &U; 2484 Q, R, S & T; 2555 T, U, W, X, Y & Z and 2556 R, S, T, V, W, X & Y. The remaining tenement is shown in Figure 2 and the surrendered position is shown in Figure 3.

![Figure 2 Tenements remaining in GR07/98 after the current reductions](image)

Australian Abrasive Minerals Pty Ltd (‘AAM’) acquired the Harts Range Garnet Project from Matilda Zircon Ltd in 2009. Matilda had previously conducted reconnaissance exploration on EL24360.

Matilda Zircon (previously Olympia Resources) has negotiated access agreements for reconnaissance drilling and helicopter surveys over EL24360.
Figure 3 EL24360 showing area retained blocked out and area relinquished clear

Once this relinquishment has been concluded Australian Abrasive Minerals proposes to reduce the area under exploration licences to 89 blocks covering 237km$^2$ and including EL28696 and EL24360 8 as shown in Figure 2.

GEOLOGICAL SETTING –EXPLORATION RATIONALE

Garnet bearing sands in paleochannels have been identified along the Plenty River valley at Aturga Creek and Entire Creek. In an endeavour to identify a garnet resource in the vicinity of the borefield identified around Spinifex Bore exploration of the floodplains of the Plenty River and Stones and Ulgarna Creeks was completed with a reconnaissance drilling programme by Matilda. Australian Abrasive Minerals continued this exploration with a major drill out of the area on EL24360 in 2010.

Garnet Exploration

In order to assess the potential for garnet in paleochannels and abandoned channels of the Plenty River AAM scoured available data using digital terrain models, Google Earth images and NTGS geophysics in an attempt to identify
paleochannels that may contain garnet deposits or any other potential mineralisation. Exploration on the northern edge of the identified resource area was unsuccessful in hole HR150 (Appendix 1).

**Water Exploration**

Bore holes drilled by previous explorers were reviewed and one target was identified

**Bore W12A** (Figure 4) is sited on a structural trend about 1.5km north-northeast of W5P. The bore intersected a contact zone between weathered granite or granite-gneiss and quartz-hornblende-mica schist, but only very minor groundwater seepage. It was drilled to 45m, the final 10m being hard, unfractured, slightly weathered to fresh schist. The bore was backfilled and abandoned.

**W5N ≡ W12A Co-Ordinates 489710E; 7467935N**

<table>
<thead>
<tr>
<th>Depth (m)</th>
<th>Lithology</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1m</td>
<td>Silty Sand</td>
<td>Red-brown, fine-grained, very well sorted, subrounded to rounded quartz, ironstone, minor mica.</td>
</tr>
<tr>
<td>2-6m</td>
<td>Sand</td>
<td>Red-brown, fine to very coarse-grained mainly fine-medium, poorly sorted, subrounded to rounded quartz, ironstone, minor mica. A few chips of silcrete 3-4m, minor garnets 5-6m.</td>
</tr>
<tr>
<td>6-7m</td>
<td>Sand and Gravel</td>
<td>Fine to gravel size, very poorly sorted, subrounded to rounded, orange and white quartz, ironstone, minor garnets. Also some white clay with angular quartz.</td>
</tr>
<tr>
<td>7-20m</td>
<td>Clay</td>
<td>White to pale yellow, with angular quartz, clear, minor smokey..? Weathered granite.</td>
</tr>
<tr>
<td>20-26m</td>
<td>Clay</td>
<td>Yellow, with angular quartz, angular fragments of yellow-dark brown ironstone (? Contact zone)</td>
</tr>
<tr>
<td>26-45m</td>
<td>Quartz-Hornblend-Mica-Schist</td>
<td>Soft, very weathered 26-28m. Weathered 28-35m. Slightly weathered to fresh, unfractured 35-45m.</td>
</tr>
</tbody>
</table>

**Uranium Exploration**

The geomorphic observations were integrated into a regional uranium exploration program conducted by Alcoa previously on the tenements. The localities were selected by review of the NTGS digital database and a literature review undertaken by Vince Roberts. In the area being relinquished only one site warranted inspection and no suitable uranium targets were identified and no drilling had been reported.
Figure 4 Location of heavy mineral and water exploration EL24360

Figure 5 Location of Uranium sampling on EL24360

The observation is summarized in Appendix 3 (EL24360-Data.txt).
CONCLUSIONS/RECOMMENDATIONS

Conclusions

In the area of the upper Plenty River and its tributaries, one initial traverse of scout drilling (RAB or RC) is recommended to investigate channels of the Cainozoic alluvials as follows:

i) A representative traverse in the Spinifex Bore area. Substantial relevant drilling may have already been carried out in this area, so that only a limited number of supplementary holes may be required (refer Item 2, above).

There is a significant granitoid signature in the south central part of the licence that is unlikely to be anomalous.

Recommendations

No further exploration for channel uranium or garnet be undertaken.
BIBLIOGRAPHY


Appendix 1 – Digital Data heavy mineral exploration

Appendix 2 – Digital Data for water exploration

Appendix 3 – Digital Data for uranium exploration