Annual Report – Year 3

Exploration Licence 27895

20\textsuperscript{th} September 2012 to 19\textsuperscript{th} September 2013
Northern Territory, Australia

\textit{Holder:} Merlin Diamonds Limited
\textit{Operator:} Merlin Diamonds Limited
\textit{Reporting Period:} 20\textsuperscript{th} September 2012 to 19\textsuperscript{th} September 2013
\textit{Sheet Reference:} Wallhallow (SE-5307) 1:250,000
\textit{Due Date:} 17\textsuperscript{th} October 2013

\begin{tabular}{|c|c|}
\hline
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\textbf{Date:} & 17\textsuperscript{th} October 2013 \\
\textbf{Report No:} & 13-030 \\
\textbf{Copies To:} & Dept. of Mines and Energy - NT MDL \\
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SUMMARY

This annual report outlines exploration activities undertaken by Merlin Diamonds Limited (MDL) on Exploration Licence 27895 between the 20th September 2012 and 19th September 2013. This period represents Year Three of the Licence.

Exploration Licence 27895 is situated on the Wallhallow (SE53-07) 1:250,000 geological mapsheet in the Northern Territory. It is located around 100 kilometres south of Borroloola.

Funding constraints and the focus of the Company’s resources to progressing the borehole mining operation at the Merlin Diamond Mine on ML1154 resulted in no field activity being undertaken on EL27895 during the reporting period. It is anticipated that once the operation is underway there will be additional personnel and funding for exploration activity.

Results from EL27895 and adjoining Licences suggest the source of the indicator minerals could be either a local primary source (ie kimberlite) or a secondary source (ie transported from a distal source and redistributed). To test this it is proposed to undertake costeanning using a backhoe to determine the origin of the soils containing the indicator minerals. Heavy mineral samples will be collected of the excavated material for processing and recovery of kimberlitic indicator minerals. This program will aim to determine if the indicator minerals are likely to be sourced from a distal source rather than a local source within the exploration Licence. If it can be shown that the indicator minerals are not derived from a distal source this will provide encouragement to continue the search for a primary source.

Total expenditure amounted to $9,118.91.
1.0 INTRODUCTION
This annual report outlines exploration activities undertaken by Merlin Diamonds Limited (MDL) on Exploration Licence 27895 between the 20th September 2012 and 19th September 2013. This period represents Year Three of the Licence.

2.0 LOCATION AND ACCESS
Exploration Licence 27895 is situated on the Wallhallow (SE53-07) 1:250,000 geological mapsheet in the Northern Territory. A tenement location map is provided as Figure 1.

3.0 LICENCE DETAILS
EL 27895 consists of 166 blocks, and was granted to Merlin Diamonds Ltd on 20th September 2010 for six years. The Tenement details are outlined in Table 1 below. A 50% reduction was submitted at the end of Year 2 with the Licence retaining 80 blocks.

Table 1: Tenement Details

<table>
<thead>
<tr>
<th>Name</th>
<th>Status</th>
<th>Effective Date</th>
<th>Grant Date</th>
<th>Expiry Date</th>
<th>Blocks</th>
<th>Holder</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL27895</td>
<td>Granted</td>
<td>20/09/10</td>
<td>20/09/10</td>
<td>19/09/16</td>
<td>80</td>
<td>Merlin Diamonds Ltd</td>
<td>100</td>
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</tbody>
</table>

4.0 PHYSIOGRAPHY

Geomorphology
EL27895 straddles a physiographic divide that separates the Bukalara Plateau in the north from the Barkly-Birdum Tableland to the south. The Barkly-Birdum Tableland is a relatively flat-lying plain that closely represents the Tertiary land surface. Most of the tableland is covered by soils developed on laterised Mesozoic rocks. Erosion from the north has developed the lower-lying dissected Bukalara Plateau that contains a well developed northward flowing drainage system. Drainage on the tableland is less developed and flows to the south. The elevation descends from approximately 300m absl in the south to approximately 250m absl in the drainages in the north of the Licence.

Geology
The oldest rock unit that crops out within the Licence is the Palaeoproterozoic Sly Creek Sandstone of the Tawallah Group. The sandstone occurs as inliers in the northern parts of
the Licence and is mapped as questionable on the 250,000 geology map. Neoproterozoic Bukalara Sandstone unconformably overlies the Sly Creek Sandstone although the contact is not exposed within the Licence. Mesozoic Sandstones containing a basal conglomerate and quartzite and an upper sandstone and siltstone uncomfortably overly both the Bukalara Sandstone and the Sly Creek Sandstone. Ferruginous soils and black soil have developed on the Mesozoic sediments and are mostly restricted to the tableland areas in the southern parts of the Licence. More recent sediments include alluvial sands and gravels and are confined to the active drainages.

5.0 PREVIOUS EXPLORATION

Previous exploration includes stream gravel and loam sampling by Ashton Mining, CRA, drilling and sampling by BHP Minerals for recovery of kimberlitic indicator minerals, and stream geochemical sampling by BHP minerals. A total of three loam samples were positive for microdiamonds (1 microdiamond per sample) in the central part of EL27895. These positive results were never followed up by Ashton Mining and remain of interest. BHP drill holes did not intersect kimberlite.

The Licence is located immediately south of MDL’s Lancelot Prospect, which is a kimberlitic chromite and diamond anomaly that remains unresolved. During 2009 and 2010 MDL discovered that the chromites are contained within eluvial material interpreted to be reworked material derived from the eroding Cretaceous rocks. During 2010-2011 MDL completed a program of sampling the alluvial material throughout the area which included collection of one stream gravel sample comprising approximately 100kg of alluvial gravel from the wall of a creek within EL27895. This sample was collected to help determine whether the chromite anomaly at the Lancelot Prospect is a regional feature or a local feature. The negative result from sample 11-004-001 supports the Lancelot anomaly being attributed to a local source however additional samples are required.

In addition, 3 stream samples (10-037-013, 10-037-014 and 10-037-015) were collected and the detrital zircons extracted by heavy mineral separation and observation and sent to the CSIRO in Perth for helium assay dating. This technique aims to determine the age at which detrital zircons have been thermally reset for example by an intrusive igneous body such as a kimberlite. Only 10-037-014 has been processed to date, which reported several
zircon ages that are apparently inconsistent with any known (igneous) rocks within the region. The importance of this is that the association of the kimberlitic chromites with alluvial material derived from eroding Cretaceous rocks, when considered together with 35Ma zircons suggest the possibility of post-Cretaceous aged kimberlites to be the source for both minerals. Sample details are shown in Table 2 and 3.

Table 2. Detrital Zircon age dating results

<table>
<thead>
<tr>
<th>Sample Site</th>
<th>Zircon (U-Th)/He age (Ma)</th>
<th>±1σ</th>
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<tbody>
<tr>
<td>10-037-014</td>
<td>68.0</td>
<td>3.2</td>
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<td></td>
<td>40.8</td>
<td>1.8</td>
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<tr>
<td></td>
<td>112</td>
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<tr>
<td></td>
<td>35.9</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>91.2</td>
<td>3.4</td>
</tr>
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No field activity was completed during the 2011-2012 reporting period. Most of the Company’s focus has been on advancing the prospectivity of adjoining tenement EL25676. A 50% reduction was submitted during the reporting period with the relinquishment of 86 blocks. A total of 80 blocks were retained for Year 3.

6.0 EXPLORATION COMPLETED DURING REPORTING PERIOD
Funding constraints and the focus of the Company’s resources to progressing the borehole mining operation at the Merlin Diamond Mine on ML1154 resulted in no field activity being undertaken on EL27895 during the reporting period. It is anticipated that once the operation is underway there will be additional personnel and funding for exploration activity.

Results to date suggest there are at least two possibilities for the distribution of kimberlite indicator minerals within EL27895 and adjoining EL25676 also held by Merlin Diamonds Limited. One possibility includes a primary source for the indicator minerals ie a kimberlite, which may be post-Cretaceous based on the CSIRO age dating of detrital
zircons. If this possibility is considered then the prospectivity of EL27895 is high given its location relative to the abundant indicator minerals on adjoining EL25676.

A second possibility includes a distal source for the indicator minerals ie they originate from an earlier event and have been transported and redistributed from a secondary sedimentary source. Some evidence for this is observed on adjoining EL25676 however the secondary source rock has not yet been identified and therefore this possibility has not been proven.

7.0 EXPENDITURE STATEMENT
The exploration expenditure attributed to EL27895 during the current reporting period was a total of $9,118.91 as per attached expenditure statement.

8.0 PROPOSED EXPLORATION PROGRAM FOR 2012-2013
To test the possibilities described in Section 7.0 it is proposed to undertake costeining using a backhoe to determine the origin of the soils containing the indicator minerals. Heavy mineral samples will be collected of the excavated material for processing and recovery of kimberlitic indicator minerals. This program will aim to determine if the indicator minerals are likely to be sourced from a distal source rather than a local source within the exploration Licence. If it can be shown that the indicator minerals are not derived from a distal or secondary source this will provide encouragement to continue the search for a primary source.
9.0 REFERENCES

Department of Mines and Energy, Northern Territory Geological Survey. Wallhallow and Bauhinia Downs 1:250,000 Explanatory Notes.


<table>
<thead>
<tr>
<th>SAMPLE</th>
<th>TYPE</th>
<th>EASTING</th>
<th>NORTHING</th>
<th>DATUM</th>
<th>ZONE</th>
<th>RESULTS</th>
<th>DIAMONDS</th>
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<tr>
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<td>GRAVEL</td>
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<td>NEGATIVE</td>
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<td>N/A</td>
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<td>8083856</td>
<td>GDA94</td>
<td>53</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Figure 1
Location Plan

Legend

- Tenement
- Drainage

Merlin Diamonds Limited