Final Surrender Report EL29331

For Period 23rd October 2012 – 10th October 2014

Distribution:-

1. DOR Darwin NT
2. Primary Gold, Perth

Ben Cairns
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EXECUTIVE SUMMARY

EL29331 was granted to Primary Minerals on the 23rd October 2012, Primary Minerals Pty Ltd is a wholly owned subsidiary of the ASX listed Primary Gold Ltd. Following grant the tenement was added to the Mt Bundy Group Report, GR184-13 and geological activities relevant to the tenement have been reported in these documents. This report summarises the work completed solely on EL29331 up until its surrender on 10th October 2014.

EL29331 is located approximately 50 km SE of Darwin and be accessed via secondary sealed roads south from Humpty Doo on the Arnhem Highway and east from Tsama Laku on the Stuart Highway.

The tenement is dominated by Cainozoic sediments overlying patchy outcrops of undifferentiated Wildman Siltstone and the Acacia Gap Quartzite member of the Wildman Siltstone, both belonging to the Mt Partridge Group. The Wildman Siltstone is described by the NTGS as a laminated colour banded shale (pyritic and carbonaceous at depth); silty shale; siltstone; sandy siltstone and minor silicified dolomite. The Acacia Gap Member of the Wildman is described as; quartzite, commonly pyritic; sandstone; inter-bedded shale and phyllite commonly carbonaceous.

During the tenure Primary Minerals has conducted preliminary reconnaissance to the project area but has not undertaken any field work. Work by Primary on the tenement has been limited to desktop studies.

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Information discussed in this report pertaining to the exploration conducted by a joint venture partner, has been done so with the full knowledge of the JV Company; in this case Rum Jungle Resources Pty Ltd.

Any information included in the report that originates from historical reports or other sources has been referenced.

This report may be released to open file as per Regulation 125(3)(d).
3 INTRODUCTION

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This report summarises the work completed solely on EL29331 up until its surrender on 10th October 2014.

EL29331 is located approximately 50 km SE of Darwin and be accessed via secondary sealed roads south from Humpty Doo on the Arnhem Highway and east from Tsama Laku on the Stuart Highway.

Work on the tenement has been limited to reconnaissance for access and desktop studies.

In this report, exploration activity conducted from grant of title on 23rd October 2012 to surrender on 10th October 2014 is discussed.

4 LOCATION AND ACCESS

Tenement EL29331 is located approximately 50km SE of Darwin NT via either the Arnhem or Stuart Highway. Sealed secondary roads access the tenement area from these major thoroughfares, forming a gridded network in the western half of the tenement. Access into the eastern half of the tenement is via rough 4WD tracks inaccessible during the wet season.

The Mt Bundy tenements fall within the Darwin 1:250,000 map sheets and the Noonamah, 1:100,000 map sheets.

Figure 1 shows the tenement location relative to major cultural features.

5 TENEMENT DETAILS

The tenement was granted to Primary Minerals Pty Ltd in October 2012. In February 2013 100% of the issued share capital of Primary Minerals was purchased by the ASX listed Hydrotech International which was subsequently renamed Primary Gold Ltd.

Table 1 lists the Mt Bundy group tenement details.

<table>
<thead>
<tr>
<th>Lease</th>
<th>Current Area (blocks)</th>
<th>Sq. Km</th>
<th>Grant Date</th>
<th>Expiry Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL29331</td>
<td>13</td>
<td>43.52</td>
<td>23-Oct-12</td>
<td>22-Oct-18</td>
</tr>
</tbody>
</table>

Table 1: EL29331 tenement details.
Figure 1: Mt Bundy Group Tenements Location
6 GEOLOGICAL SETTING

6.1 REGIONAL GEOLOGY

EL29331 is situated within the Pine Creek Orogen, a tightly folded sequence of Lower Proterozoic rocks, 10km to 14km in thickness, laid down on a rifted granitic Archaean basement during the interval ~2.2-1.87Ga. The sequence is dominated by pelitic and psammitic (continental shelf shallow marine) sediments with locally significant inter-layered cherty tuff units. Pre-orogenic mafic sills of the Zamu Dolerite event (~1.87Ga) intruded the lower formations of the South Alligator Group (Ahmad et al 2009). During the Top End Orogeny (Nimbuwah Event ~1.87-1.85Ga) the sequence was tightly folded, faulted and pervasively altered with metamorphic grade averaging greenschist facies with phyllite in sheared zones.

The Cullen intrusive event introduced a suite of fractionated calc-alkaline granitic batholith into the sequence in the period ~1.84-1.178Ga. These high temperature I-type intrusives induced strong contact metamorphic aureoles ranging up to (garnet) amphibolite facies, and created regionally extensive biotite and andalusite hornfels facies. Less deformed Middle and Late Proterozoic clastic rocks and volcanics have an unconformable relationship to the older sequences. Flat lying Palaeozoic and Mesozoic strata along with Cainozoic sediments and proto-laterite cementation overlie parts of the Pine Creek Orogen lithologies. Recent scree deposits sometimes with proto-laterite cement occupy the lower hill slopes while fluviatile sands, gravels and black soil deposits mask the river/creek flats areas.

There is a tendency for gold mineralisation to be focused in anticlinal settings within strata of the South Alligator Group and lower parts of the Finniss River Group. This sequence evolved from initial low energy shallow basinal sedimentation to higher energy deeper water flysch facies.

Gold mineralisation appears to be related to the I-type members of the Cullen Batholith, formed as a result of fractionation and differentiation processes during magma emplacement. That ultimately led to the evolution of hydrothermal fluids responsible for gold mineralisation in the adjacent meta-sediments (Bajwah, 1994).
Figure 2: Tenement geology (from NTGS mapping Darwin 1:250k map sheet, Ppa Acacia Gap Quartzite; Ppw Wildman Siltstone Undiff.)
The Mount Partridge Group is represented by the Wildman Siltstone, which is interpreted to be up to 1500m thick. On EL29331 the Wildman Siltstone consists of laminated and banded shale, carbonaceous and often pyritic siltstone inter-bedded with undifferentiated volcanics in up to 100m interbeds, minor dolomitic sediments may also be present. The Acacia Gap Quartzite member of the Wildman Siltstone is recognised within the tenement and forms a distinct NNW trending linear ridge running through the centre of the tenement. This ridge is interpreted as being the eastern limb of a north plunging, regional scale antiform, the nose of which has been mapped approximately 11km NNW of the tenement boundary. The ridge also acts as cultural feature with market garden and orchards restricted to the western side of the ridge.

The Wildman Siltstone is interpreted to be prospective for large tonnage, low-grade gold deposits and small tonnage, high-grade deposits. Wildman Siltstone hosts the nearby...
7 PREVIOUS EXPLORATION


This historic tenement is largely coincident with EL29331 and the work undertaken includes BLEG and -40# stream sediment sampling over the entire tenement area at an approximate density of one sample per 3km². Anomalous samples were in filled and followed up over subsequent years and in a number of circumstances were drill tested through RAB and diamond drilling. Some moderate Pb & Zn in soil anomalies were noted but these were generally downgraded by drilling. In 1996 the license was considered to have been adequately tested and was relinquished.


Newmont collected sixty BLEG samples from drainages within EL7064 primarily targeting Au mineralisation. One anomalous drainage was identified (2.43ppb Au) which was adjacent to a large regional quartz vein. Twelve outcrop samples were collected but no significant results were recorded and the tenement was recommended for surrender.


This license covered the western half of EL29331, limited field work was undertaken. An airborne magnetic survey was flown to provide additional structural and geological information. Due to a lack of significant results and a failure to find a suitable JV partner the license was relinquished.


This historic license covered most of EL29331 and extended south. Regional mapping and gravity surveys were undertaken along with rock chipping and soil sampling. Some anomalous cobalt and zinc samples were noted and one diamond drill hole was completed. Drilling failed to intersect prospective lithologies and the license was relinquished.


This historic license covered most of EL29331 with exception of the south western most blocks. Work completed by Geopeko was based mostly on anomalies identified by the Bureau of Mineral Resources in 1967. The work completed by Geopeko on these anomalies was largely reported as negative and license was relinquished in 1978.

8 EXPLORATION ACTIVITY 23RD OCTOBER 2012 – 10TH OCTOBER 2014

During the reporting period Primary Gold completed desktop studies and access reconnaissance on the license. The regional surface geochemical surveys completed by previous explorers identified a number of low levels Au, Pb, Zn and Co anomalies which were followed up variously by infill sampling and drilling. The follow up work failed to identify any significant mineralisation. Primary has assessed this work and has judged
that it has been thorough and complete and that based on this the potential for significant mineralisation on EL29331 is low and as such in October 2014 the license was recommended for surrender.
Primary Gold did not undertake any geological field work over the license area. Work on the license was restricted to access reconnaissance and desktop studies of previous work.

The results described by previous explorers are disappointing which along with the proximity of the tenement to a semi-urban population has decreased the exploration potential of the area and as a result the license in its entirety was surrendered.
10 REFERENCES


