GR308/13 SURRENDER REPORT

EL29361– Pine Creek Two Project

For Period Ending 1st October 2013

Target commodity: Gold
NT 1:250,000 map series – Pine Creek SD52-8
NT 1:100,000 map series – Pine Creek 5270 &
NT 1:100,000 map series – McKinlay River 5271

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1 EXECUTIVE SUMMARY

Group reporting status was granted to the Pine Creek Two project, GR308/13, on the 31 May 2013 and includes EL29361, EL29362 and EL29521. The reporting period for the title group is 1 July to 30 June. This report details work completed on EL29361, being the surrendered portion of the group, since the date of grant on 23 October 2012 until surrender on 1 October 2013.

Tenements of GR308/13 lie approximately 190km SSE of Darwin along the Stuart Highway, approximately 35km NNW of the town of Pine Creek. Access is via good sealed roads from Darwin to Pine Creek and from thence via gravel roads built to service the various local mining centres; Brocks Creek, Mount Bonnie, Fountain Head and Port Darwin Camp and also station tracks. The tenements surround areas of extensive gold mineralisation associated with the north western extent of the Pine Creek Shear Zone.

The tenements are dominated by metasediments of the South Alligator Group and the Prices Springs Granite of the Cullen Supersuite.

The work completed on the project to date has been limited to desktop reviews of previous exploration activity and publically available geological, geophysical and geochemical data sets. On the basis of this review it is recommended that EL29361 be surrendered.
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Any information included in the report that originates from historical reports or other sources is listed in the "References" section at the end of the document.

Primary Gold Ltd authorise the department to copy and distribute the report and associated data.

This report may be released to open file as per Regulation 125(3)(a).
Figure 1 - Tenement location plan
3 **INTRODUCTION**

Group reporting status was granted to the Pine Creek One project, GR308/13, on the 31 May 2013. The reporting period for the title group is 1 July to 30 June, the grant dates of the titles within the reporting group are:
- EL29521 – 15\textsuperscript{th} January 2013
- EL29361 – 23\textsuperscript{rd} October 2012
- EL26362 – 2\textsuperscript{nd} November 2012

This report documents the exploration activities conducted from the date of grant of EL29361 on the 23 October 2012 until the date of surrender on the 1 October 2013.

The tenement EL29361 lies on the north western end of the Pine Creek Shear Zone in a structurally complex area of tightly folded units of the highly prospective South Alligator Group and already plays host to numerous significant mines and mining centres located within 25km of the project area including, Fountain Head Howleys, Mt Bonnie and Brocks Creek.

4 **LOCATION AND ACCESS**

The tenement lies approximately 190km SSE of Darwin along the Stuart Highway (Figure 1) toward Adelaide River. Access is via good sealed roads from Darwin to approximately 48km south of the small township of Adelaide River and from thence via gravel mine roads and station tracks. These tracks provide good access for 4WD vehicles during the dry season, however many of the minor tracks will become impassable after heavy rain, and therefore access is restricted during the wet season which extends from November to March.

The tenement is surrounded by areas of extensive gold mineralisation associated with the Pine Creek Shear Zone at Adelaide River.

Figure 1 shows the location of EL29361 and the GR308/13 tenements.

5 **TENEMENT DETAILS**

<table>
<thead>
<tr>
<th>Lease</th>
<th>Area (blocks)</th>
<th>Sq. Km</th>
<th>Applied Date</th>
<th>Grant Date</th>
<th>Expiry Date</th>
</tr>
</thead>
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<td>EL29361</td>
<td>5</td>
<td>16.74</td>
<td>1-Feb-12</td>
<td>23-Oct-12</td>
<td>22-Oct-18</td>
</tr>
</tbody>
</table>

In late February 2013 Hydrotech International purchased 100% of the shares in Primary Minerals NL and changed its name to Primary Gold Ltd (PGO). All tenements were granted in the name of Primary Minerals NL which is now a wholly owned subsidiary of Primary Gold Ltd.

The tenement EL29361 is located on Perpetual Pastoral Lease 1111 and falls within the Pine Creek 1:250,000 map sheet and on the Pine Creek 1:100,000 map sheet.
6 GEOLOGICAL SETTING

6.1 REGIONAL GEOLOGY

Tenement EL29361 is located within the Archean to Palaeoproterozoic Pine Creek Orogen, one of the major mineral provinces of Australia, Figure 2. The Pine Creek Orogen is a deformed and metamorphosed sedimentary basin up to 14 km maximum thickness covering an area of approximately 66,000 km² and extending from Katherine in the south to Darwin in the north. It hosts significant resources of gold, uranium and platinum group metals ("PGMs"), as well as substantial base metals, silver, iron and tin-tantalum mineralization.

The Pine Creek Orogen comprises series of late Archean granite-gneiss basement domes, which are overlain by a fluvial to marine sedimentary sequence. Several highly reactive rock units are included within this sedimentary sequence including carbonaceous shale, iron stones, evaporite, carbonate and mafic to felsic volcanic units of the South Alligator and Finniss River Groups. This sequence has been subjected to regional greenschist facies metamorphism and multiphase deformation, which has resulted in the development of a northwest trending fabric. Subsequent widespread felsic volcanism and the intrusion of granitoids caused contact metamorphism, in aureoles between 500 m and 2 km wide that overprint the earlier regional metamorphism. After the granitoid intrusions an extensive array of northeast and northwest trending dolerite dykes intruded the metasedimentary sequence during regional extensional deformation.

strata of the South Alligator Group and lower parts of the Finniss River Group along anticlines, strike-slip shear zones and duplex thrusts located in proximity to the Cullen Granite Batholith. Of particular stratigraphic importance are the Wildman Siltstone, the Koolpin Formation, Gerowie Tuff, Mount Bonnie Formation and the Burrell Creek Formation.

6.2 LOCAL GEOLOGY

EL29361 (Figure 3) is underlain by the granites of the Cullen Supersuite and Cainozoic sands with minor occurrences of Koolpin Formation and Zamu Dolerite in the SW corner of the tenement. The Prices Springs Granite is a coarse grained biotite – hornblende granite with good outcrop over the NE corner of the tenement. The Koolpin Formation is interfolded with Zamu Dolerite on a possible synformal distal limb of the Burrundie Dome.
Figure 2 – Regional geology of the project area.
Figure 3 – General Geology of EL29361- McKinlay River 1:100,000 map sheet 5271
7 Exploration Activity Year Ending 30th June 2013

There has been no on ground exploration activity competed on EL29361 since its grant on 23 October 2013. Work has been limited to desktop reviews and data compilation using available NTGS data sets. These data sets have proved invaluable in the first pass evaluation of the tenement with little expenditure required.

8 Recommendations and Conclusions

The dominance of Cullen Supersuite graites within the area of the tenement and the apparent lack of any significant structures or indicators to mineralisation potential decreases the likelihood that this tenement will host significant gold mineralisation and as such the tenement is recommended for surrender.

9 References

