BROWNS RANGE PROJECT
EL25207

TANAMI REGION, NT

ANNUAL REPORT
For the Period 12 February 2015 to 19 February 2016

AND

FINAL REPORT
For the Period 12 February 2007 to 19 February 2016

Holder:             Palace Resources Limited
Operator:           Excalibur Mining Corporation Limited

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Distribution:
o  Department of Mines and Energy
o  Palace Resources Limited
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<td><strong>Titles/Tenements</strong></td>
<td>EL 25207</td>
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<td><strong>Mine/Project Name</strong></td>
<td>Brown’s Range</td>
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<td><strong>Report title including type of report and reporting period including a date</strong></td>
<td>Annual and Final Report for period ending 19/02/2016</td>
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<td><strong>Company reference number</strong></td>
<td>Tanami</td>
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<tr>
<td><strong>Target Commodity or Commodities</strong></td>
<td>Gold, base metals</td>
</tr>
<tr>
<td><strong>Date of report</strong></td>
<td>February 2016</td>
</tr>
<tr>
<td><strong>Datum/Zone</strong></td>
<td>GDA94/Zone 52</td>
</tr>
<tr>
<td><strong>250 000 K mapsheet</strong></td>
<td>Tanami SE 52-15</td>
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<td><strong>100 000 K mapsheet</strong></td>
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ABSTRACT
EL 25207 was granted to Palace Resources Ltd (Palace) in 2007 and comprised 488 sub-blocks. It targeted uranium within the lower Proterozoic Tanami Group in proximity with the unconformity with the flat-lying mid-Proterozoic Gardiner Sandstone, in an area north of the Tanami-Granites Gold Fields, based on an East Alligator Valley deposit model.

In Nov 2009 Palace entered into a Joint Venture with Excalibur Mining Corporation Limited (Excalibur). Excalibur was the operator and achieved a 90% interest in the tenement. Since grant the Licence area has been appropriately reduced and at the end of the reporting period comprises 54 sub-blocks covering only the exposed Tanami Group basement.

During the life of the tenement the exploration focus changed from uranium to Tanami-style gold and base-metals and the mid-Proterozoic cover was considered no longer prospective.

Exploration from 2007 to 2016 included

• data review of previous exploration
• interpretation of available regional magnetic and Landsat data
• magnetic and EM airborne survey
• SGC geophysical interpretation
• RAB drilling, 267 holes or 8758m and
• SRK review of exploration potential.

On 19 Feb 2016 EL 25207 was surrendered. This is a final report for EL 25207 and discusses all exploration carried out on the tenement from its grant date 12 Feb 2007 to its date of surrender.

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The document has been prepared by Claudia Rohde (Rohde Consulting Geologists Pty Ltd), for submission to the Northern Territory Department of Mines and Energy, as part of the tenement reporting requirements as per the Minerals Titles Act (NT). Any information included in the report that originates from historical reports or other sources is listed in the “Bibliography” section at the end of the document. All relevant authorisations and consents have been obtained.

Palace Resources Limited authorizes the department to copy and distribute the report and associated data.
1.0 INTRODUCTION

Palace Resources Ltd (“Palace”) applied for EL 25207 (“the Licence”) to secure a strike length of unconformity between lower and mid-Proterozoic rocks in the Tanami region, considered prospective for unconformity-type uranium mineralisation, akin to the East Alligator Region of NT. The majority of the Licence is dominated by the mid-Proterozoic Gardiner Sandstone flat-lying cover and although the NTGS has interpreted Tanami Group basement beneath much of this, effective exploration has been confined to the western part only where basement is exposed.

Since grant the Licence area has been appropriately reduced and at the end of the reporting period comprised 54 subblocks covering only the exposed Tanami Group basement. As interest in uranium has waned in recent years, the exploration focus has changed to Tanami-style gold and base-metals in 2013 and the mid-Proterozoic cover is no longer prospective.

This is a final report for EL 25207 and discusses all exploration carried out on the tenement from its grant date 12 Feb 2007 to its date of surrender on 19 Feb 2016.

2.0 LOCATION

EL 25207 is located in the Western Tanami Desert within the Supplejack Downs Pastoral Lease.

The Supplejack Homestead is approximately 800 km north-west of Alice Springs via the largely unsealed Tanami Road. Supplejack can also be accessed via the Tanami Road from Halls Creek to the north-west in Western Australia and via Kalkarindji and Lajamanu from the north (Figure 1).

All access roads to Supplejack Homestead are unsealed and sometimes closed in wet weather. The project area is approximately 50 km west of the homestead via station tracks and overland.

Access roads from Halls Creek in the west or Alice Springs in the east are unsealed and subject to closure following wet weather.
3.0 TENURE

EL 25207 was granted on 12 Feb 2007 to Palace Resources Limited comprising 488 sub-blocks. The Licence was subsequently reduced to 244 sub-blocks on 12 Feb 2011. Extensions of term for a greatly reduced area of 54 sub-blocks which covers the areas prospective for gold and base-metals were granted in 2013 and 2015.

The retained and relinquished tenement areas are shown below in Figure 2.

On the 17 Nov 2009, Excalibur Mining Corporation Limited entered into a joint venture agreement with Palace Resources Limited to earn up to 90% of the uranium and other mineral rights. In 2015 Excalibur had earned a 90% interest in the gold, uranium and base-metal rights.

EL 25207 was surrendered on 19 Feb 2016.
4.0 GEOLOGICAL SETTING

The Licence was initially applied for to cover a strike length of unconformity between the lower Proterozoic Tanami Complex and mid-Proterozoic Birrindudu Formation, a setting considered analogous to East Alligator uranium deposits.

The regional geology is shown in Figure 3.

Locally the lower Proterozoic basement comprises volcanics and metasediments of the Mt Ware Group and Killi Killi Formation (blue are in Figure 3). Unconformably overlying these are the flat-lying conglomerates and sandstones of the Gardiner Sandstone member of the lower mid-Proterozoic Birrindudu Formation (pale green). In the east of the Licence area Cambrian volcanics and sediments of the Wiso Basin further mask the prospective basement (grey).
The following section has been taken from Sullivan, 2009. Gold mineralisation was discovered by Davidson in 1900 at a number of sites within the Tanami region. Gold was reported as having been found by Wickham in the 1920's in an area about 75km south west of gold occurrences at the Granites. However, there are no reliable records to substantiate this report.

Hossfield, on his journey to Lake Mackay in 1940, collected a single sample consisting of surface stones from low ironstone gravel hills on the eastern margin of the Highland Rocks sheet. The sample returned an assay of 0.15g/t gold and 3.7g/t silver.

The area was mapped by the Bureau of Mineral Resources in the 1960's and 1970's, the results of which constitute the 1:250,000 Mt. Theo, Mt. Solitaire, The Granites and Highland Rocks map sheets and explanatory notes. In 1994, the Australian Geological Survey Organisation conducted regolith mapping of the Highland Rocks using airborne gamma-ray and Landsat MSS data. No records exist of exploration within these licenses prior to granting of the ground to Normandy NFM.

Uranium exploration was first carried out in the Tanami area in the 1960s by New Consolidated Gold Fields in the Killi Killi Hills. Mineralisation was discovered in radioactive conglomerates and sandstones in the basal part of mid-Proterozoic Gardiner sandstone, unconformably overlying lithologies of the Tanami Complex (Killi Killi Formation). Maximum
assays of 0.23% U3O2 and 5% rare earths were returned from selected surface rock samples.

In the early 1980’s the Mineral Reserves Group of Canada discovered polymetallic vein-related uranium, gold, nickel and copper mineralization associated with autunite and metatorbernite mineralization in the Gardiner Range (The Don Uranium Prospect, Morrison, 1985, Stocklmayer, 1987). Mineralisation occurs within structurally controlled chroritic shear zones close to the Tanami Complex-Birrindudu unconformity. Drilling encountered narrow widths with assays including 0.4m @ 1.7% U3O8 and 2.0 g/t Au.

The following section has been taken from Thomas, 2011.
PNC Exploration Australia’s exploration of the Browns Range Dome area for unconformity style mineralisation was carried out from 1986 to 1990 (Conan-Davies, 1989, Pearcy, 1991, 1992). Exploration activities include aerial photography, geological reconnaissance mapping, airborne geophysical interpretation, Landsat lineament and interpretation mapping, airborne magnetics and radiometrics, geological mapping and sampling for geochemistry and petrology, ground EM and magnetics, gravity heliborne surveys, ground magnetics, radiometric and radon surveys, as well as diamond and percussion drilling. A number of uranium prospects were located.

The main focus for uranium exploration was Area 15, where uraniferous chloritic shears were discovered, whilst at Area 10, gossanous, radioactive quartz veins which returned assays with uranium values up to 0.1% U3O8 as well as elevated As, Cu and Pb values. Limited drilling at Area 10 returned inconclusive results.

Another prospect, Area 32 comprised an uraniferous linear anomaly 400m long, 100m wide in recent fluvial sands and clays, overlying the Gardiner sandstone, although the area was not conclusively tested.

PNC also located several other areas of uranium mineralisation, areas 19, 20 and 21. All have a spatial association with the Tanami Complex-Birrindudu unconformity. Other historical exploration in the region for uranium has been limited, and has focussed on targeting the unconformity between the Tanami Complex (Killi Killi Formation) and the Gardiner Sandstone.

Other companies to have explored the area for uranium include WMC (Barrat, 1992,1994, Norris 1993), Otter Mines NL (1978), Kratos Uranium (1973) and Sigma Resources (Sutherland, 1983).

The majority of uranium exploration in the region occurred prior to 1983, when the then Labour Government introduced the ‘Three Mines Policy’. Since then the area has been the subject of intensive exploration for gold, which has produced several discoveries and currently operating mines.
6.0 **EXPLORATION ON EL25207 FROM 2007 TO 2016**

Previous on ground exploration of EL 25207 has been very limited. Exploration work by the Joint Venture included a review of available geology and geophysical data, and the flying of a detailed aeromagnetic and electromagnetic survey. Airborne EM and radiometrics over the lower Proterozoic exposures in the western portion of EL 25207 mapped out the unconformity and several carbonaceous conductors worthy of exploration. Shallow RAB drilling of a number of these EM anomalies in 2010 was inconclusive with several down-hole geochemistry anomalies unexplained.

6.1 **Year 1 2007 / 2008**

Exploration in the first year of tenure is described in Sullivan, 2008. It included

- a data review of previous exploration
- an interpretation of available regional magnetic and Landsat data and a magnetic and EM airborne survey.

The survey report is added as Appendix 1.

6.2 **Year 2 (2008 / 2009)**

Exploration in the second year of tenure is described in Sullivan, 2009. An aeromag interpretation was completed by B Craven from Southern Geoscience, which is added as Appendix 2. This work has identified several large coincident geophysical anomalies lying below the unconformity.

An aeromagnetic interpretation highlighting magnetic and radiometric targets is shown below in Figure 4.
6.3 Year 3 (2009 / 2010)

Exploration in the third year of tenure is described in Robson, 2010. It included the review of Newmont data covering all previous exploration within the tenement area and a reconnaissance trip in preparation for a RAB drilling program.

The company had acquired an extensive database from Newmont covering all previous exploration including sampling, drilling, magnetic and other data. Several first order targets have been identified from this data.

Successful techniques to date in the region have been typical soil and rock chip geochemistry, followed by rotary air blast (RAB) drilling to test bedrock geochemical anomalies, and subsequent reverse circulation (RC) drilling to outline and define resources.

6.4 Year 4 (2010 / 2011)

Exploration during the fourth year of tenure is described in detail in Thomas, 2011. Work included a RAB drilling program to test uranium prospective geophysical targets over an early – mid Proterozoic unconformity in the northwest corner of EL 25207. Ten drill traverses were completed with 267 holes for 8758m.

Four meter composite drill chip samples were analysed on-site with an Innov-X Systems Delta series field portable XRF. Selected samples were also submitted to the laboratory. Geological chip logging, XRF and laboratory analysis revealed no evidence of significant mineralization in the targeted areas.

Figure 4 Browns Range South - Aeromag Interpretation and Radiometric Targets
Drill locations are shown below in Figure 5 together with the EM image.

**Figure 5** Geology (top) and EM image (bottom for the Browns Range area)
6.5 Year 5 (2011 / 2012)

Exploration during the fifth year of tenure is described in detail in Kemp, 2012. It consisted of a data review and in particular an assessment of last year's RAB results. Also an environmental audit was completed.

The findings showed some elevated copper results which corresponded to geophysical anomalies. The initial presumption that uranium and REE would be present was lacking in the results.

6.6 Year 6 (2012 / 2013)

Exploration during the sixth year of tenure is described in detail in Jordan, 2013.

In 2012 Excalibur focussed on a review of previous results and ongoing prospectivity. Palace, on behalf of the joint venture. A number of shallow RAB down-hole geochemistry anomalies remain unexplained and further drilling was considered necessary.

SRK Geological Consultants were commissioned to carry out a desktop appraisal of the prospectivity of this Licence and others to the east under application by Palace. The full report from SRK is attached as Appendix 3. It rated the western part of the Licence as a high priority target for continued gold and base-metal exploration and recommended application for extension of term after Licence expiry in February 2013.

6.7 Year 7 to 8 (2013 / 2015)

Exploration during the sixth year of tenure is described in Jones, 2014 and Jones, 2015. No work was carried out due to lack of funds.

7.0 EXPLORATION COMPLETED 2015 / 2016

No further exploration work was carried out through the period.

8.0 CONCLUSIONS AND RECOMMENDATIONS

EL25207 was recommended for surrender considering the minor encouragement for mineralisation from the RAB drilling results and the current exploration climate.

There still could be potential for Tanami-style gold mineralisation in the western corner of the Licence, based on the desktop study by SRK. Also some of the original airborne EM anomalies remain untested.
9.0 BIBLIOGRAPHY


Conan-Davies, M.S., 1990 Annual report Nongra year ending 5 November Western Mining *NTGS Open File Report CR1991-0277*


