ANNUAL REPORT
16 November 2015 to 12 May 2016

and

FINAL REPORT
From Grant to 16 May 2016

EXPLORATION LICENCES
28560, 29181 and 29182

BIRRINDUDU PROJECT
GR163

Holder       ABM Resources NL
Operator     ABM Resources NL
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Date         June 2016
Email        jrohde@abmresources.com.au
Target Commodity  Gold
Datum/Zone   GDA94/ MGA Zone 52
250,000 mapsheet Birrindudu (SE52-11), Tanami (SE52-15),
100,000 mapsheet Birrindudu (4761), Nongra (4861), Phibbs (4660), Ware (4860),
                  Breaden (4859), Mallee 4759

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1.0 ABSTRACT

The relinquished tenements, Exploration Licences 28560, 29181 and 29182 formed part of ABM Resources NL’s (ABM) Birrindudu Project (GR163) which is located approximately 250km east-southeast of Halls Creek, in the north-western portion of the Tanami Desert. Prior to the surrender the Birrindudu Project comprised seven granted Exploration Licences; 5889, 27705, 28326, 28560, 28566, 29181 and 29182.

ABM acquired the tenements to explore for the potential of gold mineralisation.

Following the issue of Partial Cancellation Notices in April 2016 for non-compliance with expenditure conditions in respect of ELs 28560, 29181 and 29182, ABM reviewed its overall tenement holding at Birrindudu and concluded to lodge outright surrenders in respect of the three tenements.

This report is the annual and final report covering exploration from the grant dates in 2012 to 12 May 2016 in respect of the three surrendered tenements; ELs 28560, 29181 and 29182.

Due to the remote location and ABM’s focus on the Twin Bonanza project, no on ground exploration was conducted during the four year life of ELS 28560, 29181 and 29182.

Exploration activities were limited to desk top studies.
2.0 INTRODUCTION

The Birrindudu Project is located approximately 250km east-southeast of Halls Creek, in the northwestern region of the Tanami Desert (Figure 1). Access from Halls Creek is southeast via the unsealed Tanami Highway for approximately 320km to the Tanami Mine, then 80km north along the Lajamanu (Hooker Creek) Road to the Suplejack Downs homestead, then 40km northwest using station tracks. Access from Alice Springs is northwest via the Tanami Highway for approximately 700km until the Lajamanu turnoff.

This report is the annual and final report covering exploration from the 2012 grant dates to 12 May 2016 in respect of the three surrendered tenements; ELs 28560, 29181 and 29182.

3.0 TENURE

The surrendered tenements ELs 28560, 29181 and 29182 formed part of ABM’s Birrindudu Project. Prior to registration of the surrenders the Birrindudu Project comprised seven Exploration Licences 5889, 27705, 28326, 28560, 28566, 29181 and 29182.

Exploration Licences 29181 and EL 29182 were granted effective 6 July 2012 and EL 28560 was granted effective 7 September 2012.

EL 28560 and EL 29181 were approved for inclusion in the Birrindudu group on 22 February 2013 and EL 29182 was included on 14 August 2013 under the updated reporting ID of GR163/13.

EL 29182 was due for a 50% partial relinquishment prior to the end of the 2nd year of term, 5 July 2014. A total of 63 of the 108 blocks were relinquished.

An outright surrender in respect of Exploration Licences 28560, 29181 and 29182 was lodged on 5 May 2016 and became effective from 12 May 2016.

The surrendered tenements are listed in Table 1 and are illustrated in Figure 1.

Table 1 List of Relinquished Tenements.

<table>
<thead>
<tr>
<th>Tenement No</th>
<th>Blocks</th>
<th>Km²</th>
<th>Granted</th>
<th>Expiry</th>
<th>Surrendered</th>
</tr>
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<tr>
<td>EL 28560</td>
<td>16</td>
<td>10.75</td>
<td>7 Sep 12</td>
<td>6 Sep 18</td>
<td>12 May 2016</td>
</tr>
<tr>
<td>EL 29181</td>
<td>192</td>
<td>625.36</td>
<td>6 Jul 12</td>
<td>5 Jul 18</td>
<td>12 May 2016</td>
</tr>
<tr>
<td>EL 29182</td>
<td>45</td>
<td>145.79</td>
<td>6 Jul 12</td>
<td>5 Jul 18</td>
<td>12 May 2016</td>
</tr>
</tbody>
</table>
Figure 1: Project Locality and Tenement Location
4.0 GEOLOGY

4.1 Regional Geology

The Tanami Region comprises a package of Neo-Archaean to Meso-Proterozoic rocks, dominated by multiply deformed Palaeoproterozoic metasediments and felsic and mafic intrusives. It forms part of the North Australian Craton, separating the Palaeoproterozoic Halls Creek and Arunta Orogens. Collectively the region has a gold endowment in excess of 12 million ounces, and to date is recognised as one of the world’s most fertile Palaeoproterozoic gold provinces (TENL, 2005).

The Tanami Region has been divided into a number of stratigraphic packages.

ARCHAEOAN

Basement
The presence of Archaean basement has been noted in drill core and in a single area of outcrop south east of the Granites mine. Rocks in this area, known as the Billabong Complex, contain banded granite and gneisses. SHRIMP zircon U-Pb dating of these rocks gives an age of 2514±3 Ma. Recent review of this outcrop suggests this age constraint may have sampled Archaean xenoliths within a Proterozoic gneiss.

PROTEROZOIC

Tanami Group
The Tanami Group unconformably overlies Archaean basement. Currently the Tanami Group is subdivided into two separate formations – the Dead Bullock Formation and the conformably overlying Killi Killi Formation (Wygralak et. al., 2004). Work undertaken by Bagas (pers. comm. 2007) suggests an additional subdivision to the Tanami Group, namely the Stubbins Formation.

The Stubbins Formation is currently interpreted to be the oldest unit within the Tanami Group recently constrained by a ca. 1864 Ma SHRIMP zircon U-Pb date from an intrusive unit (Bagas et. al., 2007). The Stubbins Formation occurs as a ~200 m thick succession of iron-rich siltstone, graphitic and carbonaceous shale, banded and nodular chert, siltstone, basalt, dolerite sills and rare turbiditic sandstone (wacke), and a 2 to 3 km-thick lower succession of interlayered sandstone, pelite, and dolerite sills (Bagas et. al., 2007b).

The Dead Bullock Formation is interpreted to be stratigraphically above the Stubbins Formation, constrained by a SHRIMP U-Pb zircon age of ca 1838 Ma from a tuffaceous unit within the Callie Member (Bagas et. al., 2007a and references therein). The Dead Bullock Formation is further subdivided into two separate members – the lower Ferdies member and the overlying Callie member. The Ferdies member comprises a fining upward package of thinly bedded carbonaceous sandstone and siltstone. The Callies member comprises chemical sediments, silicate facies banded iron formation, calc-silicate and cherts in a siltstone dominated package. Bands of chert nodules are common. The upper contact of the Dead Bullock Formation is considered gradational into the Killi Killi Formation (Lambeck, 2004).
The Killi Killi Formation is composed of poorly sorted sandstones with substantial detrital mica component. The formation is interpreted to be a 4000 m thick turbidite package (Wygralak et. al., 2004). Currently the age of the Killi Killi Formation is constrained by the ca. 1838 Ma age of the Dead Bullock Formation and the ca. 1820 Ma age of volcanic rocks overlying the Killi Killi Formation (Bagas et. al., 2007a).

Doleritic sills cross cut both Dead Bullock and Killi Killi Formations. Peperitic textures are locally developed indicating emplacement synchronous with deposition.

Tanami Group rocks were subjected to the 1835-1825 Ma Tanami Orogeny. This involved disharmonic and angular folding combined with regional metamorphism to greenschist and locally, amphibolite facies (Bagas et. al. 2007a).

**Ware Group**

Rocks of the Ware Group are currently interpreted to unconformably overlie the Tanami Group. The Ware Group comprises four distinct packages.

Quartz sandstone and granular conglomerate comprise the Mt Winnecke Formation (ca. 1825 Ma). Volcanogenic sandstone interbedded with felsic volcanic rocks comprise a younger package known as the Nanny Goat Volcanic Complex (ca. 1820 Ma). Conglomeratic sandstone, siltstone and fine grained sandstones comprise the Century Formation (1825-1815 Ma) and wacke and siltstone comprise the Wilson Formation (ca. 1815-1800 Ma) (Bagas et. al., 2007a and references therein).

Intrusives of the Birthday Suite are thought to correlate with Ware Group volcanics as interpreted intrusive ages are between 1825 and 1850 Ma. Birthday suite intrusives are generally restricted to the North East part of the Tanami.

**Mount Charles Formation**

The Mount Charles Formation contains poorly exposed intercalated basalts and fine to coarse turbidite, currently interpreted to have been deposited in a narrow continental rift setting (Wygralak et. al. 2004). The Mount Charles Formation is limited to the western margin of the Frankenlia Dome. It is believed to unconformably overlie the Ware Group, and to be unconformably overlain by the Birrindudu Group (Wygralak et. al., 2004).

A further five events of complex deformation are interpreted to have occurred to the aforementioned packages between 1820 and 1790 Ma (Bagas. et. al., 2007a and references therein) although current interpretation suggest the Mount Charles Formation may only have experienced the last event. This series of deformation events was accompanied by broadly synchronous emplacement of Frederick and Grimwade Suite intrusives.

**Pargee Sandstone**

The Pargee Sandstone consists of a thick bedded quartz arenite, lithic arenite and conglomerate, with a maximum thickness of 1300m (Wyralak et. al., 2004). The unit unconformably overlies the Killi Killi Formation, and is overlain by Gardiner Sandstone of the Birrindudu Group.
Birrindudu Group

The Birrindudu Group occurs as a widespread uncomformable blanket across much of the Tanami. It is broken down into four separate units – The Gardiner Sandstone, Supplejack Downs Sandstone, Talbot Well Formation and Coomarie Sandstone. These units include lithic arenites, quartz arenites and conglomerates. Subtle variations make these units distinguishable.

PHANEROZOIC

Antrim Plateau Volcanics comprise the oldest reported Phanerzoic rocks within the Tanami Region. These normally consist of intensely weathered basalt >20 metres thick, capped by pisolithic laterite. The exposures are flat-lying and unconformably overlie the Proterozoic lithologies. (TENL, 2005)

The southern part of the Tanami Region is covered by Permian sandstone and conglomerate of the Canning Basin.

GOLD MINERALISATION

Bagas et. al. (2007a) suggests that gold was emplaced into Tanami Group lithologies as two separate events. This includes an early ca. 1835-1825 Ma gold event effecting the Stubbins Formation and a second 1790 Ma event in the Dead Bullock and Killi Killi Formations, the Ware Group, and Mt Charles Formation.

4.2 Local Geology

The Birrindudu area comprises isolated rafts of Tanami Group basement, surrounded and covered by thick sequences of flat lying Birrindudu Group sediments. These sediments form elevated plateaus rising 20-50 m above surrounding topography (Purcell, 2004). Outcrops of Tanami Group lithologies are relatively rare over the majority of the project area, occurring as highly weathered isolated outcrop and subcrop on shallow topographic rises. Basement is more commonly covered by a transported horizon of alluvial and aeolian material.

A geological re-interpretation of the Birrindudu area was undertaken by Tanami Gold NL incorporating 1:250,000 fact mapping, historic BOH drilling, close spaced aeromagnetics and the Barrick geological interpretation. This is presented on Plate 1.

Transported nodular and pisolithic gravels occur over and around the flanks of the majority of shallow rises. This material comprises both locally derived and transported material. In some cases, gravels are multiple metres thick, and locally iron cemented (ferricretes). Thickness of material decreases with increasing proximity away from rises.

Aeolian sands cover much of the low lying areas varying in thickness from less than 10 cm to multiple metres. Alluvial material commonly occurs immediately beneath aeolian sands. This material comprises poorly sorted sands, clays and often basal gravels with thicknesses of single metres to in excess of 30 metres over areas of localised palaeochannel development.
Basement Tanami Group rocks comprise deformed and metamorphosed, fine to coarse, poorly sorted sandstones, carbonaceous shale, ferruginous shale, chert, ferruginous chert dolerite dykes and rare granitic dykes. These are interpreted to comprise rocks of the Dead Bullock Formation. Felsic volcanics are noted within drilling and are believed to represent Ware Group lithologies.

Aeromagnetic assessment of the Birrindudu area suggests that basement lithologies are complexly deformed. Tight north-south oriented folding is observed in magnetically responsive sedimentary marker units in the north and west of EL 5889. Local faulting and shearing is also evident, manifested as offsets of marker units, and demagnetised zones.

5.0 EXPLORATION – Current Year

No on ground exploration was conducted on the surrendered tenements during the reporting period from 16 November 2015 to 12 May 2016. Work was limited to assessment of the tenure prior to surrender.

6.0 EXPLORATION SUMMARY - Year 1 to Year 4

In 2012 exploration included a project wide review which comprised historical and previous exploration data as well as geophysical and geological interpretations. The study resulted in the advanced planning of a surface sampling program for the individual tenements of the group. No on ground exploration was carried out as ABM explored tenements of higher priority in the region.

In 2013 no on ground exploration was conducted as ABM focused on the development of the Old Pirate Gold Project.

In 2014 a data review of EL 29182, in particular the public domain magnetic data review, resulted in a 56% reduction of the tenement area, retaining 45 one minute graticular blocks over an area showing a substantial, approximately 10km in diameter, magnetic anomaly located across the W.A. - N.T. border. The review also concluded to conduct a systematic regional scale surface sampling program in the area over the magnetic anomaly.

In 2015 no on ground exploration was conducted as ABM focused its exploration and financial efforts on the resource drilling of the Old Pirate deposit and exploration of its Twin Bonanza Project.

7.0 RECOMMENDATION and CONCLUSIONS

In early 2016 ABM undertook an assessment of it tenement holdings which resulted in a proposal to surrender three of the Birrindudu project tenements; Exploration Licences 25860, 29181 and 29182.

The proposal was based on the rationale to focus future exploration efforts at this stage on the more prospective and less remote targets which rank higher the list of priorities.
8.0 BIBLIOGRAPHY


