Rio Tinto Exploration Pty Ltd

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A member of the Rio Tinto Group

Annual Report

for the period 25 May 2015 to 24 May 2016

Tenement No. EL 27686 – Kombolgie 3 – West Arnhem Land

Report Title: Annual Report – EL 27686 Kombolgie 3

Tenement Number(s): EL 27686

Project: West Arnhem Land

Tenement Holder: Rio Tinto Exploration Pty Ltd

Tenement Operator: Rio Tinto Exploration Pty Ltd

Commodity: Uranium

Author: A.Black

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Figure 1: EL 27686 Location Map, GDA94 Zone 53 Error! Bookmark not defined.
Figure 2: 250K Geology Map of EL 27686 with locations of historic diamond drilling and surface samples

Digital Files (name, file size, file type)

No digital files included.
1 Abstract
Rio Tinto Exploration Pty Ltd applied for EL 27686 (the tenement) on the 5th of October 2009, the tenement was granted on the 25th of May 2015.

The tenement was taken out to explore for unconformity hosted uranium; it is believed to be prospective for the following reasons:

- Its position in the competitive Alligator Rivers uranium prime terrane
- Limited previous exploration due to difficult access conditions
- Prospective geology of the Middle Proterozoic Kombolgie Sub Group covering the tenement preserving the unconformity
- Proximity to regional faults which may control mineralisation

During the reporting period two land access meetings, a detailed desktop prospectivity study and work program planning took place.

The desktop study consisted of reviewing historic exploration activity including the geochemistry, regional magnetic, electromagnetic, radiometric and ASTER data.

A work program was planned focussing on confirming historic geochemical anomalies and further geochemical surveying and mapping of the tenement.

No field work was completed during the reporting period due to there being no road access into the tenement and insufficient budget for a helicopter supported program at this time.

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3 Introduction

3.1 Location
EL 27686 is located in West Arnhem Land (WAL), east of the Kakadu National Park, 30 km SE of the historic Nabarlek uranium mine (Figure 1).
3.2 Title History
Rio Tinto Exploration Pty Ltd applied for EL 27686 (the tenement) on the 5 of October 2009, the tenement was granted on the 25 of May 2015. The current lease is due to expire on the 24 of May 2021.

<table>
<thead>
<tr>
<th>Tenement Number</th>
<th>Tenement Name</th>
<th>Tenement Status</th>
<th>Tenement Holder</th>
<th>Tenement Operator</th>
<th>Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL 27686</td>
<td>Kombolgie 3</td>
<td>Granted</td>
<td>Rio Tinto</td>
<td>Rio Tinto</td>
<td>West Arnhem</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Exploration Pty Ltd (100%)</td>
<td>Exploration Pty Ltd</td>
<td>Land</td>
</tr>
</tbody>
</table>

Table 1: Summary of tenement

3.3 Physiography
The tenement covers 59 km² of the steep rocky Arnhem Land Plateaux, consisting of sandstone hills, plains and rises of weathered basalt and laterite with thin sandy soils. Only minor drainage channels exist in the tenement with the Goomadeer River 2 km to the west.

3.4 Access
The tenement sits in Aboriginal Land of the Arnhem Land Aboriginal Land Trust; consent and work program meetings with Traditional Owners (facilitated by the Northern Land Council) are conducted prior to tenement grant and the commencement of exploration activities.
4 Geology

4.1 Geological setting
The East Alligator River area is underlain by a sequence of Lower Proterozoic metasediments with a gradual migmatitic contact with the Archean Namambu Complex of granitoids. This sequence was then intruded by the Nimbuwah Complex granites in the east. These rocks are unconformably overlain by Middle Proterozoic sandstone and interbedded volcanics of the Kombolgie Sub Group. The erosional remnant of this formation forms the Arnhem Land Plateaux. The uranium mineralisation of West Arnhem Land is largely attributed to the presence of this major unconformity.

4.2 Exploration History
The area covered by the tenement had not previously been explored prior to the EL being granted.

- AFMEX 1997 – 2001. Exploration was carried out in the area as part of the larger EL 3347 tenement. An airborne radiometric survey in 1997 identified Stevens prospect 8 km WNW of EL 27686, which was drilled and sampled extensively. In addition 5 helicopter-supported diamond drill holes and five Nano TEM, five ground EM traverses, a regional stream sediment survey and a regional gravity line were completed.

- Cameco 2003 – 2010. Cameco acquired EL 3347 from AFMEX in 2003 becoming EL 25896, drilling 11 diamond, 33 RC & 75 aircore holes, a soil sampling program, a SAM survey and a TEMPEST EM survey at Stevens. Cameco concluded that mineralisation at Stevens was limited & discontinuous, insufficient to produce an economic deposit. Cameco surrendered the ground on the 16th September 2010.
4.3 Exploration Rationale
The ground was taken out to explore for large unconformity hosted uranium deposits like Ranger and Jabiluka of the East Alligator Rivers region. The tenement was picked because:

- Its position in the competitive Alligator Rivers uranium prime terrane
- Limited previous exploration due to difficult access conditions
- Prospective geology of the Middle Proterozoic Kombolgie Sub Group covering the tenement preserving the unconformity
- Proximity to regional faults which may control mineralisation

Rio Tinto Exploration is looking for large Tier 1 style deposits in the order of 100 Mt of ore at 0.25% U3O8.

4.4 Exploration Index Map
See Figure 2 to show extents of historic AFMEX and Cameco exploration on and around the tenement.

5 Geological Activities and Office Studies
During the reporting period a desktop prospectivity study and work program planning took place.

The desktop study consisted of reviewing historic exploration activity including the geochemistry, regional magnetics & EM, radiometric and ASTER data in order to generate new exploration targets.

A future work plan was developed from reviewing historic surface sample geochemistry, along with publicly available geophysical surveys (including the GA 2009 Kombolgie VTEM survey). The program of work will likely consist of gridded and targeted rock chip sampling, mapping and ground magnetics.

A conceptual exploration target in the tenement is a magnetic anomaly coincident with samples collected in 2006 described as gossanous specular hematite rich sandstone, with elevated U/Th, V, Au, S and As.

Timing of the work program will depend on available budget, physical access restrictions in terms of vehicular access and the timing of grant of other surrounding applications. If multiple work programs can be conducted at once this will help manage exploration costs.

6 Remote sensing
No remote sensing work was conducted or data purchased over the tenement during the reporting period.

7 Geophysical Activities
No geophysical work was conducted or data purchased over the tenement during the reporting period.

8 Surface geochemistry
No surface geochemical work was conducted on the tenement during the reporting period.

9 Drilling
No drilling work was conducted on the tenement during the reporting period.

10 Geotechnical studies
No geophysical work was conducted on the tenement during the reporting period.

11 Resources and reserve estimation/modelling
No resource and reserve estimation/modelling were conducted during the reporting period.
12 Conclusions and Recommendations

No new data was collected during the reporting period; work was restricted to historic data review and work program planning. The tenement remains prospective and further work is recommended to explore for tier 1 uranium resources related to the unconformity.

A work program based on a geochemically surveying historic geochemical anomaly and a conceptual magnetic anomaly has been proposed. The timing of this program will depend on access to the tenement by road, available budget and/or the timing of other nearby pending applications being granted.

13 References

Previous company reports used:

14 Photographs other than those in the body of the text

No photographs included.

15 Appendices

No appendices included, all reference material used in the period was open file public data.