Titleholder: Rum Jungle Resources Ltd
Operator: Rum Jungle Resources Ltd
Tenement Manager: Complete Tenement Management
Tenement: EL 28116
Project Name: Ammaroo Phosphate
Report Title: Partial relinquishment report for EL 28116, Ammaroo Phosphate Project
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Corporate Author: Rum Jungle Resources Ltd
Target Commodity: Rock Phosphate
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Datum/Zone: GDA94/ Zone 53
250K map sheet: Elkedra SF5307, Barrow Creek SF5306
100K map sheet: Ammaroo 5954, Lurapulla 5854
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SUMMARY

EL 28116 is part of Rum Jungle Resources’ Ammaroo Phosphate Project of multiple ELs in the name of both Rum Jungle Resources and its subsidiaries Territory Phosphate and Central Australian Phosphate. The project contains a JORC resource at Barrow Creek 1/Arganara and an advanced prospect at Ammaroo South. It is worked as a single project and drilling programs commonly extend across multiple ELs and span the anniversary dates of individual ELs. Rum Jungle Resources is making a voluntary partial reduction of 148 sub-blocks from EL 28116, reducing it from 185 to 37 sub-blocks. This is the second voluntary reduction of this EL and is part of Rum Jungle Resources’ on-going commitment to turn-over ground in the Ammaroo Phosphate Project. Eight RAB holes have been drilled in or near the most recently relinquished portion. Some holes are within tens to hundreds of metres of the boundary of areas previously relinquished from EL 28116 and relinquished from the contiguous Rum Jungle Resources EL 25184. One hole reported in the previous partial relinquishments has been found to have been misplotted on the wrong EL. This report includes corrected locations and additional holes from all contiguous areas ever relinquished, all of which can be open-filed. This brings the total drilling reported here to 15 RAB holes for 642 m. No phosphate was intersected.
LOCATION, ACCESS AND LAND USE

EL 28116 is located approximately 230 km south-southeast east of Tennant Creek and forms part of Rum Jungle Resources’ Ammaroo Phosphate Project. The project area is sparsely settled, with permanent habitation restricted to the pastoral lease homestead at Ammaroo and the indigenous community at Ampilatwatja (population 450). The area supports an active beef cattle industry and some cattle are run on EL 28116. Access to the project area is via the sealed Stuart Highway, the sealed Plenty and unsealed Sandover Highways from the south and the Taylors Road / Murray Downs road from the north. Other access is limited to various station and exploration tracks. EL 28116 is on Ammaroo Pastoral Lease. Ammaroo Station has undertaken all earthworks on EL 28116. The Barrow Creek 1 base camp and fly-camps are used for exploration. Bores are used for drinking water. A medical clinic is located at the Ampilatwatja Aboriginal Community. Fuel is carted from Alice Springs. The nearest airstrip is at Ampilatwatja. The Barrow Creek 1 camp has an emergency helipad and fuel.

![Figure 1: Location of EL 28116 showing the area to be relinquished outlined in red and that to be retained in blue. Ampilatwatja community is located in the open polygon.](image)

The northern part of the Ammaroo Phosphate project area, along the southern margin of the Davenport Range, is a plain of weathered soil with patchy scrub cover. The highest relief is a few low ridges and stony rises covered by lateritic gravel. Towards the southeast, this soil plain becomes a subdued plateau, dissected by short valleys. Extensive sandplains and floodplains associated with the Sandover River/Bundey River systems cover the southern-most portion of the project area. EL 28116 itself is mainly flat, sparsely vegetated country.

Sites of Significance to the Traditional Owners

AAPA site certificates have been obtained. The Traditional Owners, the CLC, and their anthropologists have vetted and issued site-specific approvals for all of Rum Jungle Resources’ exploration activities. EL 28116 may contain areas of various levels of restricted access relating to
sacred sites, dreaming trails or other sites of significance to the Aboriginal people. The locations of these areas are kept in confidence to the Traditional Owners and the CLC and have deliberately not been depicted on maps here-in.

**HISTORY OF TENURE AND DME ADMINISTRATION**
EL 28116 was granted to Rum Jungle Resources Ltd on 18 January 2011 for a period of six (6) years expiring on 17/01/2017 over an area of two hundred and fifty-six (256) graticular blocks (797.25 km$^2$). The Ammaroo Phosphate Project has been approved as a group technical report and Expenditure Project Area with a reporting date of 17 March in each year. The current applicable expenditure commitment for the Project Area is $1,500,000. The Project is operated by Rum Jungle Resources under DME Authorisation Ammaroo 0609-04. This is the second voluntary partial relinquishment of EL 28116.

**COMPANY PHILOSOPHY, EXPLORATION AND PROJECT RATIONALE**
Rum Jungle Resources Ltd aims to become a dominant Australian fertiliser mineral company and has significant proven resources of both phosphate and potash in NT. The company is also actively exploring a diversified minerals exploration portfolio targeting base and precious metals and uranium across the Northern Territory. The company’s head-office is in Darwin and it maintains other facilities in Alice Springs. Rum Jungle Resources has a track record of using indigenous labour and local contractors.

**JORC RESOURCE**
As a result of the 2011 resource definition drilling, the Barrow Creek 1 JORC Inferred and Indicated Resource was upgraded 05/12/2011 to 253 Mt at 15% $P_2O_5$ using a 10% cutoff. This includes 13 Mt in the Indicated category. A further resource upgrade is expected in the first quarter of 2014 which will include the contiguous Arganara Resource and extensions to both Arganara and Barrow Creek 1.

**GEOLOGICAL SETTING**
The Georgina Basin includes rocks of Neoproterozoic to Devonian age, with Cambrian platform carbonate rocks dominating basin fill. The southern Georgina Basin includes a thick sequence of Cambrian-Ordovician sediments, deposited within the Dulcie Trough and on the adjoining Elkedra Shelf. Work by previous explorers and NTGS identified an extensive area of shelf-facies marine carbonate and clastic sediments of the Middle Cambrian Arthur Creek Formation within the southern Georgina Basin (Figure 2). This area is prospective for sedimentary phosphate mineralisation.
Figure 2. Simplified Cambrian lithostratigraphy of the southern Georgina Basin, from NTGS.

Within the project area, the Cambrian lithostratigraphy of the southern Georgina Basin includes units of the Shadow and Narpa Groups. Two units are known to be phosphatic:

- mid-Cambrian Thorntonia Limestone – a limestone and dolostone unit with phosphorite beds
- mid-Cambrian Arthur Creek Formation – deep-water anoxic organic-rich shales overlain by shallow-water aerobic calc- and dolo-siltstones with phosphorite beds

To date, the Thorntonia Limestone phosphorite is thought to be inferior to that in the Arthur Creek Formation in Rum Jungle Resources’ project area.

Alluvial, aeolian and residual sediments of Cenozoic age blanket most of the remaining project area including all of EL 28116.

AREA TO BE RELINQUISHED AND REASONS
Rum Jungle Resources is making a voluntary partial reduction of 148 sub-blocks from EL 28116, reducing it from 185 to 37 sub-blocks. This is the second voluntary reduction of this EL and part of Rum Jungle Resources’ on-going commitment to turn-over ground in the Ammaroo Phosphate Project. No phosphate was intersected in the area relinquished.

WORK BY RUM JUNGLE RESOURCES
Eight RAB holes have been drilled in or near the most recently relinquished portion. Some holes are within tens to hundreds of metres of the boundary of areas previously relinquished from EL 28116 and relinquished from the contiguous Rum Jungle Resources EL 25184. One hole reported in the previous partial relinquishments has been found to have been misplotted on the wrong EL. This report includes corrected locations and additional holes from all contiguous areas ever relinquished, all of which can be open-filed. This brings the total reported here to 15 RAB holes for 642 m, with an average depth of 42.8 m. No phosphate was intersected.
CONCLUSIONS AND RECOMMENDATIONS
Drilling indicates that there is no phosphate within economic depths on the area relinquished.

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Figure 3. Drillholes in and near the current relinquishment from EL 28116 outlined in red. Corrected drillhole locations for contiguous areas previously relinquished are also shown. Data for all holes shown is included with this report.