



Rio Tinto Exploration Pty. Limited

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A member of the Rio Tinto Group

Annual Report
For the Period 1 December 2009 to 30 November 2010
EL 25395 Jandapa 1 –
SD5303 Arnhem Bay
Northern Territory

Exploration Report No. 28912

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LIST OF PLANS

Plan No.	Title	Scale
pAI10_004	Tenement location	1:400,000
pAI10_001	Planned auger and mapping traverses	1:150,000

1. SUMMARY

The Jandapa Hill Project consists of two granted Exploration Licences, EL 25395 and EL 27591, granted on 01/12/2009 and ELA 27592 under the name Territory Uranium Company Ltd. Rio Tinto Exploration is the operator under an option agreement with Territory Uranium to conduct exploration on the project for bauxite. This report covers activities on the tenement EL 25395, Jandapa 1 and does not include activities on EL 27591, Jandapa 2. Combined reporting will be sort for this project for the next period.

After the tenement was granted in December 2009, a work programme clearance meeting was held on the 18th May 2010 at Galiwinku. Following this meeting, further discussions were held with the Traditional Owners at Mata Mata and Rorrowuy. Post work-program approvals, two field trips to communities within the Jandapa Hill project area were completed. Representatives from the Northern Land Council (NLC) attended in order to complete further consultation with the landowners around one particular area of dispute upon EL 25395.

No field work or samples were collected due to poor weather following the prolonged discussions over access.

The approved work programme was planned to be conducted in October 2010 following all necessary final approvals by the NLC. This work was initially postponed due to unseasonal rain and then deferred due to the onset of the Northern Australia wet season. The approved work program in areas that are not in dispute is rescheduled for the 2011 dry season.

2. INTRODUCTION

The Jandapa Hill Project consists of two granted Exploration Licences, EL 25395 and EL 27591, granted on 01/12/2009 under the name Territory Uranium Company Ltd. Rio Tinto Exploration has an option agreement with Territory Uranium to conduct exploration on the project for bauxite. This report covers activities on the tenement EL 25395, Jandapa 1 and does not include activities on EL 27591, Jandapa 2. An application will be submitted to have combined reporting for all of the Jandapa tenements for the next annual report. Remaining tenure within the Jandapa Hill project is contained within one tenement ELA 27592 which remains in moratorium. The tenements are located approximately 60 km west of Nhulunbuy in north-east Arnhem Land and were consequently processed under the Aboriginal Land Rights Act 1975 (ALRA).

After the tenement was granted in December 2009, a work programme clearance meeting was held on the 18th May 2010. The approved work programme was planned to be conducted in October 2010 following all necessary final approvals by the NLC and during the dry season to aid in access and general work conditions. Due to an early onset of the Northern Territory 2010 wet season, the approved work program is rescheduled for the 2011 dry season.

3. LICENSE DETAILS

EL 25395 and EL 27591 were granted from the original application area of ELA 25395 following the consent process from the Northern Land Council. The remaining area was split out and put into moratorium under ELA 27592. The original EL 25395 tenement application covered 483 sq. km of which 174 sq. km as EL 25395 and 5 sq. km as EL 27591 were granted. Of the non-consent area, EL 27592 was returned into moratorium. Both granted tenements reside within east Arnhem which is subject to the Aboriginal Land Rights Act 1975 (ALRA). Tenement details are listed in Table 1 below.

Table 1: Tenement Details

Tenement No.	Tenement Name	Ownership	Grant Date	Area Applied km ²	Area Granted km ²
EL25395	Jandapa 1	Territory Uranium Co. Ltd.	1/12/2009		174
EL27591	Jandapa 2	Territory Uranium Co. Ltd.	1/12/2009		5
EL27592		Territory Uranium Co. Ltd.	Application	483	-

4. PREVIOUS EXPLORATION

Previous exploration within the area of Jandapa 1 is limited to early reconnaissance work completed by BHP for manganese and bauxite. Within the original application area, BHP had previously drilled 11 holes, of which 4 holes remain now in the granted area of EL 25395. Of these four holes drilled to an average depth of 37m, no geochemical assays are recorded. No further work has been conducted in the area since the late 1960's.

Table 2: Previous Exploration Summary

Year	Company	Tenement	Exploration Completed
1960-1970	BHP Ltd	ATP1138	Manganese and Bauxite reconnaissance exploration. Eleven (11) holes completed on the original ELA 25395 area, including four (4) within the granted area of EL 25395.

5. GEOLOGY

Geology of the Jandapa Hill area comprises of a sequence of sedimentary sandstones and claystones belonging to the Walker River Formation (Middle Cretaceous) and the younger Yirrkala Formation (Upper Cretaceous) (Refer to SD5304 – Gove Special GSNT Geology Map). During the tertiary period, the Yirrkala Formation has undergone extensive lateritisation in the east Arnhem area, of which some is bauxite. The cretaceous sediments are overlain by Quaternary alluvials in places where the original laterite surface has been eroded.

While many occurrences of bauxite have been recorded in the east Arnhem area, large, economic deposits outside the general vicinity of the Gove mine site, have not been delineated.

6. GEOPHYSICS

The project area is covered by a regional scale aeromagnetic survey flown for the NTGS in 1990-92 (Rawlings et al., 1997). The radiometric data can be used to help distinguish the laterite-covered areas from those of both basement and Quaternary sand cover. This method does not distinguish between bauxitic and non-bauxitic laterite.

Digital terrain data has been acquired and processed to assess areas for plateaus that may be prospective for bauxite. The Jandapa Hill area contains clearly defined, gently dipping flat surfaces that may be interpreted as remnant laterite.

7. ENVIRONMENT/COMMUNITY

A work programme meeting was held in May 2010 to discuss and formally approve the proposed mapping and auger sampling. There were some areas that were rejected however the bulk of the work was approved. After this meeting and after the receipt of an updated work programme map from the NLC, a significant amount of the approved work programme was questioned by interested parties.

Discussions were held with the Traditional Owners at nearby communities including Mata Mata and Rorrowuy, and accompanied RTX personnel during the survey of country. All work was completed in accordance with the Mine Management Plan.

Post NLC work programme meeting approvals, two field trips to communities within the Jandapa Hill project area have been completed. Representatives from the Northern Land Council (NLC) attended in order to complete further consultation with the landowners around one particular area of dispute upon EL 25395.

In October 2010, an external services group conducted a cultural awareness session for RTX employees working within the Arnhem Land bauxite projects.

8. EXPLORATION COMPLETED DURING REPORTING PERIOD

No field work was carried out during the period. Review of the remote sensed data, geophysics, previous exploration data was conducted to prepare the work programme.

9. EXPLORATION EXPENDITURE

The details of exploration expenditure for EL 25395 by RTX are presented separately in the Annual Expenditure Report.

10. PROPOSED EXPLORATION

Completion of the approved work program is scheduled for dry season in 2011. It was planned to have been completed in October 2010, however early onset of the wet season has required the postponement of the field work.

Rio Tinto Exploration intends to continue to explore the Jandapa Hill project, including EL 25395 and EL 27591 simultaneously. Submittal of request for combined reporting for the two tenements is in progress as this report is finalised, however for the interim, separate reports for each tenement have been submitted.

11. CONCLUSIONS AND RECOMMENDATIONS

Rio Tinto Exploration is committed to a staged approach to bauxite exploration in East Arnhem Land in order to ensure the strictest environmental and cultural compliance. Rio Tinto Exploration intends to continue this exploration approach within the granted area of EL 25395 while obtaining the appropriate approvals.

REFERENCES

Blake, J. & Hartshorn., G., 2010, Combined Annual Report For Period Ending 14 September , 2010, EL 4170 Cato Plateau & EL 4171 Cato River 'Cato Project', Gove SD5304, Northern Territory. RTX Report Number 28823.

Chestnut W., Gunn, M. and McGregor, P., BHP Pty Ltd., 1968. Report on Exploration Within AP1138, Eastern Arnhem Land. Northern Territory Department of Mines and Energy, Open File Company Report CR1968-0011.

Chestnut W., Blayden, I., Edyvean, M. & Gee, C., BHP Pty Ltd., 1966. Report on Exploration Within AP1138, Eastern Arnhem Land. Northern Territory Department of Mines and Energy Open File Report CR1966-0008.

Ferenczi P.A., 2001, Iron Ore, Manganese and Bauxite Deposits of the Northern Territory. Northern Territory Geological Survey Report No. 13.

Rawlings, D.J., 1997, 1:250 000 Geological Map. Explanatory Notes. Arnhem Bay Gove SD5303-04, Northern Territory Geological Survey.

LOCALITY

Arnhem Bay

SD5303

1:250 000

DESCRIPTOR

Annual Report for the Period 1 December 2009 to 30 November 2010, EL 25395 Jandapa 1 SD5303 Arnhem Bay, Northern Territory located within the Arnhem Lands Aboriginal Land Trust, Northern Territory, Australia. Exploration activities were delayed due to early onset of the wet season in the Northern Territory.

KEYWORDS

Jandapa Hill, bauxite, community, weather, Cretaceous laterite