



Rio Tinto Exploration Pty. Limited

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A member of the Rio Tinto Group

**Second Annual Report
for the Period Ending 2 August 2002,
EL 5953 Mt Lean,
Mt Marumba SD53-06, Urapunga SD 53-10
Nymbilli 5870, Benda 5869
Northern Territory,
Australia**

Exploration Report No. 25620

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LIST OF PLANS

<u>Plan No.</u>	<u>Title</u>	<u>Scale</u>
NTd6942	Tenement Location Plan	1:1 000 000

1 SUMMARY

EL 5953 Mt Lean is located within the freehold Arnhem Land Aboriginal Land Trust, Northern Territory. The project area covers the Arnhem Shelf of the northern 1800-1400Ma McArthur Basin. Very little modern mineral exploration has been carried out in the area, which is considered prospective for diamonds and base metals.

Reconnaissance gravel sampling by RTE in the previous year was concentrated in the southeast half of EL 5953. One sample contained two picroilmenite grains of possible kimberlite origin that were considered of further interest. Chromite, garnet and ilmenite grains in other samples were interpreted to be of crustal origin and of no further interest. Reconnaissance stream sediment sampling failed to define any significant base metal anomalies.

No additional exploration data is supplied in this report. During the current reporting period RTE reviewed the exploration data for EL 5953 and assessed it's status relative to the rest of RTE's diamond exploration projects around Australia. EL 5953 and the contiguous EL 5954 were recommended for divestment and discussions are presently in progress with various interested parties.

An environmental study was completed.

2 CONCLUSIONS AND RECOMMENDATIONS

Reconnaissance gravel sampling completed to date has identified one area worthy of further investigation.

The northwest half of EL 5953 remains to be tested more comprehensively with reconnaissance gravel sampling.

EL 5953 has been recommended for divestment and discussions are presently in progress with various interested parties.

3 INTRODUCTION

EL 5953 Mt Lean is located within an isolated area within the freehold Arnhem Land Aboriginal Land Trust, Northern Territory (Plan NTd6942). Access to the area is via the Central Arnhem Highway that passes through the Bulman Zn-Pb district. RTE has only accessed the project area by helicopter.

RTE / CRAE applied for EL 5953 in late 1987 for the purposes for diamond and base metal exploration. The tenement was granted in 2 August 2000 for a period of 6 years subject to an ALRA Deed of Agreement with the Traditional landowners.

4 TENEMENT DETAILS

Table 1: Tenement Details

Name	Tenement No.	Application Date	Grant Date	Sub-Blocks	Area (km ²)
Mt Lean	5953	1987	3 August 2000	476	

5 GEOLOGY

EL 5953 covers the Arnhem Shelf of the northern and central portion of the 1800-1400Ma McArthur Basin. The broad stratigraphy on the Shelf is as follows:

- Cretaceous sediments form isolated plateaus.
- Cambrian Bukalara Sandstone/Wessel Group (Arafura Basin).
- Dolerite dyke and sill intrusions.
- 1400Ma Roper Group sandstone, iron formations and shales.
- 1550Ma Mt Rigg Group/Nathan Group carbonates, minor sandstone; Bulman Zn-Pb mineralisation.
- 1700Ma Katherine River Group sandstone. Uranium mineralisation occurs in the basal Kombolgie Formation at Jabiluka, Pine Creek Inlier.

- +1800Ma granite basement.

EL 5953 covers gently deformed Roper Group sediments containing dolerite sills and dykes that form part of the Urapunga Tectonic Ridge that separates the Walker and Batten troughs to the north and south respectively. Proximal to the tenement the regional NW-SE Bulman Fault corridor intersects a major N-S trending fault zones related to the Walker Trough. The regional structural configuration of the basin in this area is considered favourable to the development of base metal deposits and the intrusion of kimberlite diatremes.

6 PREVIOUS EXPLORATION

EL 5953 lies in the Arnhem Land region of the Northern Territory where very little modern mineral exploration has been carried out. Western Nuclear completed some reconnaissance regional exploration in the region between 1965 and 1969 but failed to locate any mineralisation.

During the last reporting period RTE completed reconnaissance drainage sampling for kimberlite indicator minerals. This sampling returned grains of chromite, garnet, ilmenite and picroilmenite but no micro diamonds. It was interpreted that the chromite, garnet and ilmenite were of crustal origin, while the picroilmenite might be sourced from kimberlite.

Reconnaissance stream sediment samples were also collected by RTE and assayed for a broad multi-element suite. No significant geochemical anomalies for base metals were identified.

7 EXPLORATION COMPLETED DURING THE REPORTING PERIOD

Work completed during the current reporting period consisted of a review of the exploration data for EL 5953 relative to RTE's Australia-wide diamond exploration tenement holdings. It was recognised that:

- The reconnaissance sampling completed during the previous reporting period did not provide a comprehensive coverage of the tenement and large areas remain to be tested for the first time with reconnaissance sampling.

- More detailed reconnaissance sampling coverage on EL 5954, the contiguous tenement immediately to the south, provided some encouragement to persist.

During the year RTE assessed the status of its extensive diamond exploration tenement holdings around Australia. EL 5953 and the contiguous EL 5954 were selected for divestment and discussions are presently in progress with various interested parties.

8 ENVIRONMENT

All access to the tenement area by RTE has been by helicopter. For the reporting period, no field work was done and no environmental or rehabilitation issues are current.

During the reporting period RTE completed an environmental study of the area containing EL's 5953 and 5954 as part of an Environmental Management Plan. The aim of the study was to identify threatened ecological communities, threatened species, marine protected species, migratory species, Ramsar Sites, Commonwealth Areas, World Heritage Areas and Regional Forest Agreements. The results are summarised as follows:

- Threatened ecological communities, Ramsar Sites, Commonwealth Areas, World Heritage Sites were not identified.
- Six threatened species (4 birds, 1 fish and 1 turtle) are known to inhabit the broader environment and might be found within the area.
- There are 10 migratory species that inhabit the broader environment and might be found within the area.
- There are 10 protected marine species that inhabit the broader environment and might be found within the area.

9 EXPENDITURE STATEMENT

Description	Amount (\$)
Computing Services	859.10
Cont Exploration- Ext	128.59
Field & Transport	7,522.67
Gen Office Supp & Comm	1,384.63
Indirect Costs	4,642.26
Payroll & Benefits	11,164.75
Recoveries & Income	0.00
Rent & Property	1,544.49
Sundry Prof & Other	2,309.85
Tenement Payments	31,376.39
Travel & Accomodation	358.76
Total	61,291.49

REFERENCES

Johnson D.M., 2001. EL 5953 Mt Lean. Annual Report for the Period Ending 2 August, 2001. RTE Exploration Report No. 24547.

	<u>LOCALITY</u>	
Mt Marumba	SD53-06	1:250 000
Urapunga	SD 53-10	1:250 000
Nymbilli	5870	1:100 000
Benda	5869	1:100 000

DESCRIPTOR

Second annual exploration report for EL 5953 Mt Lean located in northern McArthur Basin, NT. Review of exploration data indicates the tenement remains under explored for diamonds and there are indicator mineral anomalies that remain to be followed up. Divestment of the tenement is in progress.

KEYWORDS

Arnhem Land, McArthur Basin, Roper Group, Diamond, Picroilmenite, Indicator minerals, Environmental Management Plan