Rio Tinto Exploration Pty. Limited

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A member of the Rio Tinto Group

Second Annual Report for the Period Ending 6th June 2002 EL 8915, Tee Dee Hill, Waterloo SE52-03, Northern Territory

Exploration Report No. 25199

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LIST OF CONTENTS

Page No

LIST OF CONTENTS ii
LIST OF TABLES iii
LIST OF PLANS iii
1 SUMMARY 1
2 CONCLUSIONS AND RECOMMENDATIONS 1
3 INTRODUCTION 1
4 TENEMENT DETAILS 2
5 GEOLOGY 2
6 PREVIOUS EXPLORATION 2
7 EXPLORATION COMPLETED DURING THE CURRENT REPORTING PERIOD 3
8 ENVIRONMENT 4
9 EXPENDITURE STATEMENT 4
REFERENCES 5
LOCALITY 5
DESCRIPTOR 5
KEYWORDS 5

LIST OF TABLES

Table 1: Tenement Details..... 2

LIST OF PLANS

Plan No.	Title	Scale
Ntd 6863	Tenement Location Plan	1:1 000 000

1 SUMMARY

EL 8915 Tee Dee Hill is located within the Neoproterozoic Victoria River Basin that has been intruded by kimberlite near Timber Creek. The geology of the tenement is dominated by the Neoproterozoic Jasper Creek Sandstone overlain by Lower Cambrian Antrim Plateau Volcanics. The rocks are only gently deformed.

Previous diamond exploration within EL 8915 identified a prominent kimberlite indicator mineral anomaly known as "Tee Dee Hill" highlighted by a cluster of macrodiamonds, microdiamonds and other indicator minerals within a single drainage. A number of samples elsewhere within the tenement contain kimberlite indicator minerals including picroilmenite in samples from two adjacent drainages.

Work completed during the current reporting period was confined to an assessment of available diamond exploration data. This work identified a number of interesting targets and geological features worthy of additional investigation.

2 CONCLUSIONS AND RECOMMENDATIONS

Exploration completed to date has not explained the source of kimberlitic indicator mineral anomalies within the tenement.

Several targets within EL 8915 warrant additional investigation for diamonds.

A review of RTE's extensive diamond exploration tenement holdings in Australia has resulted in the decision to divest EL 8915.

3 INTRODUCTION

EL 8915 Tee Dee Hill was granted to Ashton Mining Limited on 7 June 2000 for diamond exploration. RTE acquired the exploration commitments to the tenement as part of the takeover of Ashton in late 2000 by Rio Tinto.

EL 8915 is located within the Nagurunguru Aboriginal Land Trust, 100km south west of Timber Creek and 30km east of the Amanbidji community, western Northern Territory. The tenement is subject to the Timber Creek J/V and Deed of Exploration with the Nagurunguru Aboriginal Land Trust.

4 TENEMENT DETAILS

Table 1: Tenement Details

Name	Tenement No.	Application Date	Grant Date	Sub-Blocks	Area (km^2)
Tee Dee Hill	EL 8915		7 June 2000	414	1333

5 GEOLOGY

EL 8915 is located over the southern part of the Neoproterozoic Victoria River Basin. The physiography consists mainly of dissected plateaus, ridges and some alluvial plains. Occasional pronounced linear drainage patterns map the location of faults.

The Victoria River Basin consists of marine and continental sediments (mainly sandstone) up to 3500m thick. The Jasper Creek Sandstone of the Auvergne Group comprises most of the Neoproterozoic outcrop. In the southwest of the tenement Angalarri Siltstone overlies the Jasper Gorge Sandstone. In the southeast and southwest Lower Cambrian Antrim Plateau Volcanics unconformably overlies the Auvergne Group. Deformation consists of minor tilting to broad open folding and minor faulting. Erosion of the basalt in the more recent geological past has exposed sub-circular domes of the underlying Neoproterozoic sediments.

Regional NW-SE and NE-SW trending lineaments, some of which appear to be intruded by dykes, are evident from airborne magnetics data. Traversing immediately to the south the Tee Dee Hill indicator mineral anomaly is a prominent ENE-WSW drainage lineament interpreted to be a major fault that extends west for over 100km.

Jurassic diamondiferous dykes that have intruded the Victoria River Basin are located about 100km to the NE near Timber Creek.

6 PREVIOUS EXPLORATION

Ashton explored the area in the early 1980s and early 1990s for diamonds. This earlier work consisted of reconnaissance gravel sampling, drainage geochemical sampling, loam sampling, airborne and heliborne magnetic surveys, INPUT surveying and photogeological studies. Airborne magnetic anomalies were selected and some were followed up with surface sampling. Photogeological studies, utilising 1:50,000 scale black and white aerial photographs surveyed in 1948, identified a number of circular and linear features that were further assessed in the field or tested with one or two loam samples.

The drainage sampling identified macrodiamonds, microdiamonds and other indicator minerals clustering within a number of drainage catchments within the tenement. One pronounced indicator mineral anomaly, referred to as “Tee Dee Hill”, consists of a prominent

cluster of macrodiamonds, microdiamonds and other indicator minerals largely confined to a single drainage channel.

During the last reporting period exploration work completed by Ashton/RTE consisted of;

infill drainage sampling around the tenement and SEM probing and assessment of chromite geochemistry from one sample;

a detailed airborne magnetics survey (100m line spacing) over the Tee Dee Hill indicator mineral anomaly; and

ground magnetic and EM-34 traverses over a coincident airborne magnetic and circular geomorphological feature.

The infill drainage sampling continued to highlight the drainage channel of the Tee Dee Hill indicator mineral anomaly. SEM probing of chromites from one sample indicated that many were non-kimberlitic but some were possibly kimberlitic.

The detailed aeromagnetic survey highlighted four magnetic anomalies. One of four magnetic anomalies was associated with a 400m by 200m depression with brecciation-silicification, peripheral concentric fracturing and a coincident EM anomaly. Soil and loam sampling over the feature failed to return any significant results. Ground inspection revealed that feature was probably a basalt vent.

7 EXPLORATION COMPLETED DURING THE CURRENT REPORTING PERIOD

Work completed during the current reporting period consisted of a review of available exploration data, including regional topographic and Landsat Thematic Mapper imagery. The following observations were made from the data review:

The Tee Dee Hill indicator mineral anomaly lies down hill of a prominent ENE-WSW drainage-defined (geomorphological) lineament that extends for 100+km to the west. Landsat Thematic Mapper (TM) image interpretation highlighted a possible circular “clay anomaly”, about 1km diameter, adjacent to the lineament. The anomaly is immediately up slope of the Tee Dee Hill indicator mineral anomaly and near the base of an outlier of Antrim Plateau Volcanics. A very subtle magnetic feature was identified associated with the clay anomaly.

Further to the west, two adjacent gravel sample sites containing picroilmenite are also located proximal to the 100+km long regional lineament.

There are other gravel sample microdiamond occurrences within the tenement that could be investigated further.

During the year the status of EL 8915 was assessed relative to RTE's extensive diamond exploration tenement holdings around Australia (much of which was acquired from the Ashton takeover in late 2000). EL 8915 was selected for divestment along with a suite of neighbouring tenements. Discussions are in progress with various interested parties.

8 ENVIRONMENT

None of the exploration work completed by Ashton or RTE within EL 8915 has involved ground-disturbing work requiring rehabilitation.

9 EXPENDITURE STATEMENT

Description	Amount ($)
Computing Services	131.80
Cont Exploration- Ext	157.00
Field & Transport	631.00
Gen Office Supp & Comm	94.34
Indirect Costs	2,807.76
Laboratory Analysis	1,344.00
Payroll & Benefits	1,246.43
Recoveries & Income	0.00
Rent & Property	232.49
Sundry Prof & Other	20.86
Tenement Payments	17,045.26
Travel & Accommodation	77.43
Total	**23,788.37**

REFERENCES

Walker P.J. and Johnson D.M., 2001. EL 8915 Tee Dee Hill, Annual Report for the Year Ending 6th July 2001. Rio Tinto Exploration Report No. 24533.

LOCALITY

Waterloo	SE52-03	1:250 000
Kimon	4864	1:100,000
Kildurk	4865	1:100,000

DESCRIPTOR

Second annual report for EL 8915 Tee Dee Hill. A review of diamond exploration data identified additional targets worthy of additional investigation. A review by RTE of its diamond exploration tenement holdings in Australia resulted in decision to divest EL 8915.

KEYWORDS

Victoria River Basin, Auvergne Group, Antrim Plateau Volcanics, Neoproterozoic, Cambrian, Diamonds, Chromite, Picroilmenite, Indicator minerals, Landsat Thematic Mapper.