



## **Rio Tinto Exploration Pty. Limited**

ABN 76 000 057 125 / ACN 000 057 125

A member of the Rio Tinto Group

First Annual Report  
for the Period Ending 20 May 2003,  
EL 9965 Victoria River,  
Victoria Diamond Programme,  
Wave Hill SE52-08,  
Northern Territory,  
Australia

**Exploration Report No. 26164**

Tenement Holder: Rio Tinto Exploration Pty Limited

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RTE Perth Information Centre

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## **SUMMARY OF ACTIVITIES**

EL 9965 Victoria River is located in the north west of the Wave Hill SE 52-08 1:250,000 map sheet, 360 km south west of Katherine, western Northern Territory, Australia. EL 9965 was granted to Ashton Exploration Australia Pty Ltd on 21 May 2002. Ashton and the EL application were acquired by Rio Tinto Ltd in late 2000. The EL is one of a group of 21 contiguous granted EL's and EL applications held by Rio Tinto Exploration Pty Ltd (RTE) in the region and referred to as the Victoria Diamonds Project.

EL 9965 is located over the reasonably well-drained eastern margin of the poorly drained, lateritised "Limbunya plateau". Microdiamonds and other indicator minerals have been identified in samples on the plateau, particularly from in, and around, Gill Creek that drains the plateau. Within EL 9965 many of the creeks, but not all, are sourced from the Limbunya plateau. Chromite and picroilmenite occurrences within the EL do not appear to be sourced from the plateau and their source remains enigmatic.

CRA Exploration and Ashton Mining had previously collected gravel samples from 57 sample sites exploring for diamonds within the area now covered by EL 9965. Nine sample sites returned indicator minerals including chromite and one picroilmenite occurrence. The results of the sampling suggests that there are no sizeable, exposed, diamond-bearing kimberlites within EL 9965.

Victoria Basin sediments in the west and Cambrian basalt in the east dominate the geology of EL 9965. In the west of the EL there is:

- i) A WNW-ESE lineament/fault associated with the diamond-bearing Gill Creek parallels the regionally significant Limbunya Fault.
- ii) A regional NNW-SSE trending gravity lineament paralleling an anticline and associated major fault zone. Interpreted lineaments traversing the EL appear to have a spatial relationship to various indicator mineral occurrences.

During the current reporting period RTE assessed available geomorphological, geological, geophysical and historical sampling datasets for EL 9965. No field-based exploration was carried out. RTE identified potential target areas for the indicator mineral occurrences and developed various models that might explain their geographic and geological source(s). As no advanced kimberlitic targets were identified it was decided that EL 9965 should be divested along with neighbouring tenement of the Victoria Diamond Project. During the reporting year exploration data was packaged and presented to interested parties. At the time of writing this report the divestment was being finalised with one of these parties.

## VERIFICATION LISTING

Exploration Work Type	File Name	Format
<b>Office Studies</b>		
Literature search		
Database compilation		
Computer modelling		
Reprocessing of data		
General research		
Report preparation	26164 Victoria river.pdf	.pdf
Other (specify)	WAp45672 (Tenement Location Plan)	.pdf
<b>Airborne Exploration Surveys</b>		
Aeromagnetics		
Radiometrics		
Electromagnetics		
Gravity		
Digital terrain modelling		
Other (specify)		
<b>Remote Sensing</b>		
Aerial photography		
LANDSAT		
SPOT		
MSS		
Radar		
Other (specify)		
<b>Ground Exploration Surveys</b>		
<b>Geological Mapping</b>		
Regional		
Reconnaissance		
Prospect		
Underground		
Costean		
<b>Ground Geophysics</b>		
Radiometrics		
Magnetics		
Gravity		
Digital terrain modelling		
Electromagnetics		
SP/AP/EP		
IP		
AMT		
Resistivity		
Complex resistivity		
Seismic reflection		
Seismic refraction		
Well logging		
Geophysical interpretation		
Other (specify)		
<b>Geochemical Surveying</b>		
Drill sample		
Stream sediment		
Soil		
Rock chip		
Regolith		
Water		
Biogeochemistry		
Isotope		
Whole rock		
Mineral analysis		
Other (specify)		
<b>Drilling</b>		
Aircore		
Auger		
Diamond		
Reverse circulation		
Rotary air blast		
Rotary percussion		
Tungsten carbide bit (coring)		
Groundwater drilling		
All drilling		
<b>File Verification Listing (this table)</b>	26164 Victoria River V.pdf	.pdf