



Rio Tinto Exploration Pty. Limited

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A member of the Rio Tinto Group

**Combined Annual Report (Cato Project)
For the Period 14 October 2007 to 13 October 2008
EL 4170 Cato Plateau & EL4171 Cato River
Gove Special SD 5304
Northern Territory**

Exploration Report No. 28396

Tenement Holder:	Rio Tinto Exploration Pty Limited
Date:	November 2008
Author:	G Hartshorn
Submitted:	I M Clementson
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SUMMARY OF ACTIVITES

Exploration Licence (EL) 4170 Cato Plateau and EL4171 Cato River were applied for by BHP Minerals Pty Ltd (BHP) on 3 October 1982. EL4170 was granted on 14 October 2004, EL4171 was granted on 12 September 2005. Rio Tinto Exploration Pty Limited (RTX) signed an agreement with BHP on 27 March 2000 whereby RTX took over management and ownership of the tenements. An amendment to this agreement was signed on 21 December 2007 which gave Rio the rights to explore and mine for bauxite and BHPB the equivalent rights to manganese. The original EL4170 tenement application covered an area of 593.5km² of which only 57.0km² was granted. The remainder of the area was split off into a new application, EL24389 and put into moratorium. The original EL4171 tenement application covered an area of 846.0km² of which 598.2km² was granted with the remaining areas split off into new applications (ELA24829 and 24830). The tenements are located 30km west of Nhulunbuy, east Arnhem Land and consequently are processed under the Aboriginal Land Rights Act 1975 (ALRA). Combined reporting of EL4171 and EL4170 was granted on 3 August 2007, and called the 'Cato Project'. The Cato Project forms part of the larger contiguous tenement package in east Arnhem Land, which is considered prospective for bauxite and manganese.

This combined annual report describes the exploration completed during the fifth tenure year of EL4170 and the fourth tenure year of EL4171.

Exploration was conducted by both Rio Tinto for bauxite and BHPB for manganese. The simultaneous activities form part of the amended 2007 agreement. By far the most activities conducted during the year were by BHPB focussed on manganese. The details of this work including raw data and recommendations are in the report by BHPB in appendix 1.

The Cato Project covers a spur of the Cato Plateau, which is a known area of bauxite of similar style to the nearby world class Gove deposit. It also covers extensions of subtle, coastal plateaus and a small isolated plateau. The area is also prospective for manganese.

Exploration for bauxite was limited during the year to the completion of the drilling on the Cato East Plateau (EL4170) and collection of 20 rock samples within EL4171.

A total of 310.5 metres in 52 vacuum drill holes were conducted on the Cato East plateau. These holes targeted pisolitic bauxite on a remnant outlier of the main Cato Plateau. The results of the drilling confirmed the presence of bauxite however all holes were high silica (>15% SiO₂). Assay results for the rock samples collected on EL4171 have not been received to date

Manganese work by BHPB included a small EM survey and drilling of 21 RC holes.

VERIFICATION LISTING

Exploration Work Type	File Name	Format
Office Studies		
Literature search		
Database compilation		
Computer modelling		
Reprocessing of data		
General research		
Report preparation	Cato Project _A_01_Combined Report pAI07_011 (Location plan) pAI07_010 (Location plan of 2008 planned drilling) WAp46452 (location of plateau)	.pdf .pdf .pdf .pdf
Other (specify)		
Airborne Exploration Surveys		
Aeromagnetics		
Radiometrics		
Electromagnetics		
Digital terrain modelling		
Other (specify)		
Remote Sensing		
Aerial photography		
LANDSAT		
SPOT		
MSS		
Radar		
Other (specify)		
Ground Exploration Surveys		
Geological Mapping		
Regional		
Reconnaissance		
Prospect		
Underground		
Costean		
Ground Geophysics		
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)		
Geochemical Surveying		
Drill sample	Catoeast_2009_A_3_downholegeochem	.txt
Stream sediment		
Soil		
Rock	pAI09_011 (Rock location plan)	.pdf
Regolith		
Water		
Biogeochemistry		
Isotope		
Whole rock		
Mineral analysis		
Other (specify)		
Drilling		
Vacuum drilling	pAI09_009.pdf (drill hole location plan) pAI09_010.pdf (location of anomalous holes) Catoeast_2009_A_1_lithology Catoeast_2009_A_2_drillcollars Catoeast_2009_A_3_downholegeochem	.pdf .pdf .txt .txt .txt
Auger		
Diamond		
Reverse circulation		
Rotary air blast		
Rotary percussion		
Tungsten carbide bit (coring)		
Groundwater drilling		

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File Verification Listing (this table)	28595 Cato_Project V	.pdf

