



Rio Tinto Exploration Pty. Limited

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A member of the Rio Tinto Group

Annual Report
For the Period 13 November 2006 to 12 November 2007
EL 22/2006
Yambacoona Mineral Sands Project
Yambacoona, King Island
Tasmania

Exploration Report No. 28098

Tenement Holder: Rio Tinto Exploration Pty Limited

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SUMMARY

EL 22/2006 Yambacoona was granted to Rio Tinto Exploration Pty Limited (RTX) on 13 November 2006. The Exploration Licence (EL) is 179km² in area and occupies the north-western portion of King Island. The initial term of the EL is for five years. RTX holds a 100% in the title.

The EL covers Pleistocene sand units which form a sand plain between Lower Palaeozoic and Proterozoic granitic rocks to the south on the main part of King Island and isolated basement granitic highs along the north coast of King Island. This sand plain is interpreted to have been formed during the Pleistocene by a series of marine transgressions and regressions. Heavy minerals might have been concentrated in lower and upper shore face sand units in the resultant sedimentary package.

During the reporting period radiometric airborne survey data has been processed and used to generate targets indicative of mineral bearing sand. These target areas have been followed up on the ground and tested with the drilling of 23 hand auger holes to depths of 2.0 to 4.2 metres. Sand samples from this augering have been tested with heavy liquid separation with grades of 1.5 to 4.0% being encountered. SEM modal mineralogy has indicated zircon content of 7 to 12%, rutile content of 3 to 9.6%, leucoxene content of 3.2 to 19.6% and ilmenite content of 17.4 to 24.5%.

It is planned during the second of tenure, to carry out a drilling programme using a Toyota mounted reverse circulation air core drilling rig in order to provide a more adequate test of the mineral bearing sand unit.

VERIFICATION LISTING

Exploration Work Type	File Name	Format
Office Studies		
Literature search		
Database compilation		
Computer modelling		
Reprocessing of data		
General research		
Report preparation	E222006_200710_Report	.pdf
Other (specify)location map	pTi07_016	pdf
Airborne Exploration Surveys		
Aeromagnetics		
Radiometrics	pTi07_017, pTi07_018	pdf
Electromagnetics		
Gravity		
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		
Stream sediment		
Soil	pTi07_019, King Island sampling, Table 1-N2442hI07, SEM modal mineralogy	Pdf, txt
Rock chip		
Regolith		
Water		
Biogeochemistry		
Isotope		
Whole rock		
Mineral analysis		
Other testwork		
Drilling		
Aircore		
Auger	YAG01_2914, YAG02_2915, YAG03_2916, YAG04_2917, YAG05_2918, YAG06_2919, YAG07_2920, YAG08_2921, YAG09_2923, YAG10_2924, YAG11_2925, YAG12_2926, YAG14_2927, YAG15_2928, YAG16_2929, YAG17_2930, YAG18_2931, YAG20_2932, YAG21_2933, YAG22_2934, YAG23_2938	jpg
Diamond		
Reverse circulation		
Rotary air blast		
Rotary percussion		
Tungsten carbide bit (coring)		
Groundwater drilling		
All drilling		
File Verification Listing (this table)	28098 Yambacoona V	doc