MT GOYDER
EXPLORATION LICENCE 23921

ANNUAL REPORT
FOR THE PERIOD
18th DECEMBER 2004 TO 17th DECEMBER 2005

Darwin 1:250,000 Sheet
Mary River-Point Stuart 1:100,000 Sheet
NORTHERN TERRITORY

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1. SUMMARY

This report details exploration activities conducted by Territory Iron Limited within the EL23921 (Mt Goyder) area during the Year 2 ending 17th December 2005.

Exploration activities during the reporting year comprised:

1. high resolution, low altitude (80m line x 25m height) airborne magnetic and radiometric survey over most of the tenement area;
2. processing of the data and;
3. preliminary GIS compilation of the data and identification of magnetic features of interest.

Six magnetic anomalies (A to F) were identified. Two lie adjacent to the northern margin of the Mt Bundey Granite in the north western part of the tenement, whilst the remaining are located on the northern and western margins of the Mt Goyder Syenite in the easternmost part of the tenement. All but one coincide with features delineated in the 1964 survey data, but are better resolved and in most cases show significant strike length extensions than that evident in the old data.

Expenditure during the reporting year was $27,668.

During Year 3 field exploration activities are planned to test the anomalies for their iron ore potential and will include:

— mapping, gridding and geochemical sampling of anomalies,
— 1,200m of scout RAB drilling, and if appropriate,
— 2,400m of follow-up RC drilling of a number of the best anomalies.

Estimated expenditure for the proposed work will be approximately $100,000.
2. INTRODUCTION

The report details exploration activities conducted by Territory Iron Limited within Exploration Licence area E23921 during the year ending 17th December 2005.

Exploration Licence 23921, covering 16 graticular blocks or a total of 53.58 square kilometres, was granted for a 6-year term on 18th December 2003. The tenement with Exploration Licence 23791 and Exploration Licence 24468 form the Mt Bundy Project area.

The tenement area is located approximately 100km ESE of Darwin. Access from Darwin to the property is by way of the Arnhem Highway that runs eastwards to Jabiru. The Arnhem Highway crosses the western portion of the Mount Bundey property and also its southern and eastern parts, Figure 1.

Climate is tropical and humid with a rainy season from December to March. Field work is largely restricted to the dry season.

3. REGIONAL GEOLOGY

The Mount Goyder tenement is located in the Lower Proterozoic Pine Creek Orogen sedimentary sequence.

The basal unit of the Pine Creek Orogen sequence present in the area is the Wildman Siltstone of the Mount Partridge Group. The Wildman Siltstone predominantly of fine grained sediments with minor sandstone and carbonate units. Many of the finer grained units are ferruginous.

Unconformably overlying the Mount Partridge Group is the South Alligator Group of which only the Koolpin Formation is represented in the tenement area. It consists of carbonaceous and pyritic fine grained sediments that are ferruginous in outcrop.

This sedimentary package is intruded by the Lower Proterozoic Mount Bundey Granite and the Mount Goyder Syenite that are considered to be two phases of an intrusive complex. Only the younger Mount Goyder Syenite crops out within the tenement area, Figure 2.

Cainozoic silts, alluvium, soils related to the Mary River drainage system and lateritic sediments form extensive deposits cover over most of the tenement area.

4. LOCAL GEOLOGY & STRUCTURE

The lower Wildman Siltstone is the predominant rock type underlying the tenement area, as inferred from small outcrop exposures sporadically distributed throughout the tenement area.
Figure 1  Tenement Location EL23921 & Aeromagnetic Survey Area (hatched)
Figure 2  Regional Geology
The Mt Goyder Syenite forms a circular outcrop area some 3.2km in diameter located in the western part of the tenement.

The broad overall structure is a synclinorium with the intrusive Syenite located approximately on NNE trending fold axes that plunge at low angles to the south.

5. MINERALISATION

Economic iron mineralisation in the Mount Bundey-Mt Goyder district is known from the abandoned Mt Bundey mine in adjoining EL 23791 and a description is given below for the information of the reader, as it is the mineralisation style sought in EL 23921.

The Mt Bundey deposit occurs in Mount Goyder Syenite on the margin of the Mount Bundey intrusive complex. Ore reserves have been depleted; though sulphur-rich tonnage remains beneath the old pit floor. The mineralisation formed two approximately parallel lodes that struck north easterly. The Main or Pritchards Lode was around 700 metres long and had a maximum width of 32 metres. To the northwest was the Parallel Lode that ranged up to 9 metres in width. Between and adjacent to these two structures were greatly altered and ferruginised sediments probably of the country rock.

The iron bearing materials present were of four types. The martite caprock lode consisted of massive martite with little texture but abundant vugs and various amounts of massive goethite generally along fractures. Quartz was present in stringers and filling some of the vugs. Boxworks were present and rarely pyrite. The hematite lode comprised massive hematite with small amounts of goethite whilst the hematite-goethite lode consisted of massive amorphous goethite associated with hematite. The limonite-clay lode consisted of limonite of lateritic origin. The lodes passed downwards in to a martite-magnetite-pyrite rock.

Flanking the original outcrop of the iron deposit there were developed rubble and scree of iron bearing materials that were partially cemented in places.

Briefly, Mount Bundey iron ore is taken to be skarn mineralisation formed by the intrusion of the Mt Goyder Syenite into carbonaceous, pyrite sediments (possibly the Wildman Siltstone). Hydrothermal processes under a reducing environment caused by the presence of carbonaceous material converted pyrite into magnetite. Subsequent supergene enrichment (during the Tertiary?) converted magnetite into martite.

6. EXPLORATION ACTIVITIES

A low level, high resolution (25m height x 50m line spacing) aeromagnetic and radiometric survey was conducted in August-September 2005 by UTS Geophysics of Perth, Western Australia over both EL23921 and the adjoining tenement EL23791. Approximately 935 line kilometres (lkm) of the total 5,358 lkm was flown over EL23921.
Radiometric data collected consisted of total count, potassium, uranium and thorium counts. Electronic aeromagnetic survey data is contained on a CD in Appendix 1.

The raw located data was processed by Resource Potentials of Perth, Western Australia who produced and forwarded to Territory Iron for preliminary interpretation the standard electronic image products, viz. reduced-to-the-pole TMI 1st to 3rd vertical derivatives and U, Th, K images.

7. EXPLORATION RESULTS

A preliminary examination of various TMI and radiometric products compiled on GIS software with the Mary River-Point Stuart region 1:100,000 geological sheet highlights a number of magnetic and geological features.

7.1 Magnetic Features

These are best expressed in the rtp 2nd VD TMI data, Figure 3:

- **Anomaly A**: a linear, NNE trending, moderate intensity anomaly of approximately 1,500m extent. Its southern end lies on the northern margin of the Mt Goyder Syenite. The anomaly lies mainly under Quaternary cover with siliceous ironstone recorded from its northern end. The eastern margin of the anomaly cold run along the contact of a segment of the Syenite which may lie under cover in this area. (former Southern Geoscience anomaly B2).

- **Anomaly B**: a linear, NNE trending, low-moderate intensity anomaly of approximately 700 extent. It forms the northern continuation of a stronger anomaly situated within EL23791. This is no record of this anomaly being investigated by past explorers. (former Southern Geoscience anomaly C1).

- **Anomaly C**: a linear, N trending, moderate-high intensity anomaly of approximately 1,300m extent located on the western contact of the Mt Goyder Syenite with sediments. It forms at least three groups of small magnetic features - the biggest of which is about 300m long. They appear to be structurally controlled by NNE, N and to a lesser extent NNW joints/faults. (former Southern Geoscience anomaly B3).

- **Anomaly D**: A linear, 200m long, NE trending, high intensity feature showing strong structural control by a prominent NE joint/fault that extends through the entire Mt Goyder Syenite body. It is located within the Syenite. (former Southern Geoscience A4).

- **Anomaly E**: A linear, 210-300m long, N trending anomaly comprising two parallel moderate strength magnetic features. It is located within the Syenite. (former Southern Geoscience C5).
Anomaly F: A linear, 200m long, N trending, high strength anomaly close to the NE trending structure noted in Anomaly D. It is located within the Syenite. The area is reported from past explorers to be soil covered. Apart from ground

Figure 3    Magnetic Features RTP 2VD TMI: Mt Goyder EL
Figure 4  U-Th-K Ternary image – Mt Goyder EL
magnetic survey conducted over the anomaly, which returned highly anomalous results, no other work appears to have been carried out. (former G2).

7.2 Radiometric Features

The radiometric (U, Th, K) channels are excellent mappers of the igneous intrusions and there are no major variations to mapped boundaries as shown on the Mary River-Point Stuart region 1:100,000 geological sheet. However, the data does suggest in the Mt Bundey area (in EL23791) that the Mt Goyder Syenite, which has a higher radiometric count than the Mt Bundey Granite, extends further to the south along the eastern margin of the igneous complex. The ternary U-Th-K treatment is useful in identifying igneous rocks from the sediments (compare Figure 4 with Figure 2).

8. YEAR 3 PROGRAMME

During Year 3 field exploration activities are planned to test the anomalies for their iron ore potential and they will include:

— mapping, gridding and geochemical sampling of anomalies,
— 1,200m of scout RAB drilling, and if appropriate,
— 2,400m of follow-up RC drilling of a number of the best anomalies.

Estimated expenditure for the proposed work will be approximately $100,000.

9. EXPENDITURE

Expenditure for Year 1 exploration was $27,668 as detailed in the attached expenditure report.
APPENDIX 1  AEROMAGNETIC SURVEY LOCATED DATA
(electronic data on CD)