# **EXODUS MINERALS LIMITED**

(ACN 007 701 715)

# **Annual Report**

# **Beantree**

Exploration Licence 8420

For the period 1 November 1996 to 31 October 1997

Napperby 1:250,000 Sheet SF53-09 Mt Doreen 1:250,000 Sheet SF52-12

CR 9 7

Licensee: Normandy Gold Pty Ltd perator: Exodus Minerals Limited

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Date: November 1997

Approved:

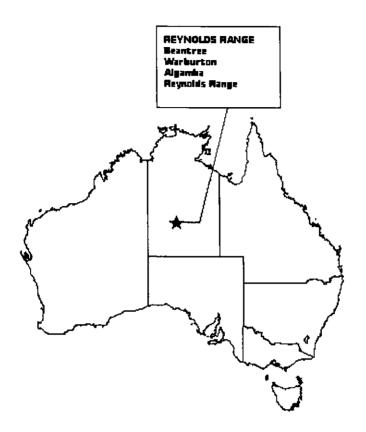
Distribution: Exodus Minerals Limited (2)

Department of Minerals & Energy, Perth (1)

Normandy Gold Pty Ltd (1)

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#### **LOCALITY MAP**



# **ABSTRACT**

Exodus Minerals Limited reached a joint venture agreement with Normandy Gold Pty Ltd on 6 August 1997, in which Exodus may earn a 60% interest in the "Reynolds Range" Project (of which Beantree – E8420 is a part), by spending \$1.5 million by August 2001.

Exploration for the period included a full data review by Exodus, a Geomorphological Interpretation and a Digital Elevation Mapping (DEM) Survey over the project area.

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#### 1.0 INTRODUCTION

Exodus Minerals Limited reached a joint venture agreement with Normandy Gold Pty Ltd on 6 August 1997, in which Exodus may earn a 60% interest in the "Reynolds Range" project (in which EL 8420 – Beantree is a part), from Normandy by spending \$1.5 million by August 2001.

Exploration Licence 8420 was applied for to target structurally controlled gold mineralisation within the Lower to Mid Proterozoic metamorphosed units of the Arunta Orogenic Domain, namely the Lander Rock Beds.

This report covers exploration work completed by Normandy Gold Pty Ltd and Exodus Minerals Limited for the period 01.11.96 - 31.10.97 (being the third year of the tenure).

#### 2.0 LOCATION AND ACCESS

Exploration Licence 8420 is located on the Napperby (SF53-09) and Mt Doreen (SF52.12) 1:250,000 sheets. Situated some 220 kilometres north-west of Alice Springs, the project area covers parts of Coniston and Mt Denison pastoral leases (Figure 1).

Access to the project area is from the Stuart Highway, north of Aileron Roadhouse, via the unsealed Coniston Station Road to Mt Denison. Alternative access is via the Tanami Road from Alice Springs to Yuendumu, and then east via the unsealed Coniston Station Road.

Station tracks provide some access within the project area.

## 3.0 TENURE

Exploration Licence 8420 was granted to Normandy Gold Pty Ltd on 1 November 1994 and consists of 180 blocks or 580km<sup>2</sup>, having been reduced from 359 blocks (1,156km<sup>2</sup>) after the second year of Tenure.

Currently EL8420 forms part of a Substitute Exploration Licence Application (SELA 9500) which was submitted on 5 March 1996 and includes adjoining Exploration Licences 7343, 9277 and 9278.

#### 4.0 PHYSIOGRAPHY

The project area is dominated by sand plains and peneplains developed over granite. The landscape is rugged with numerous small incised drainages in areas of granite outcrop.

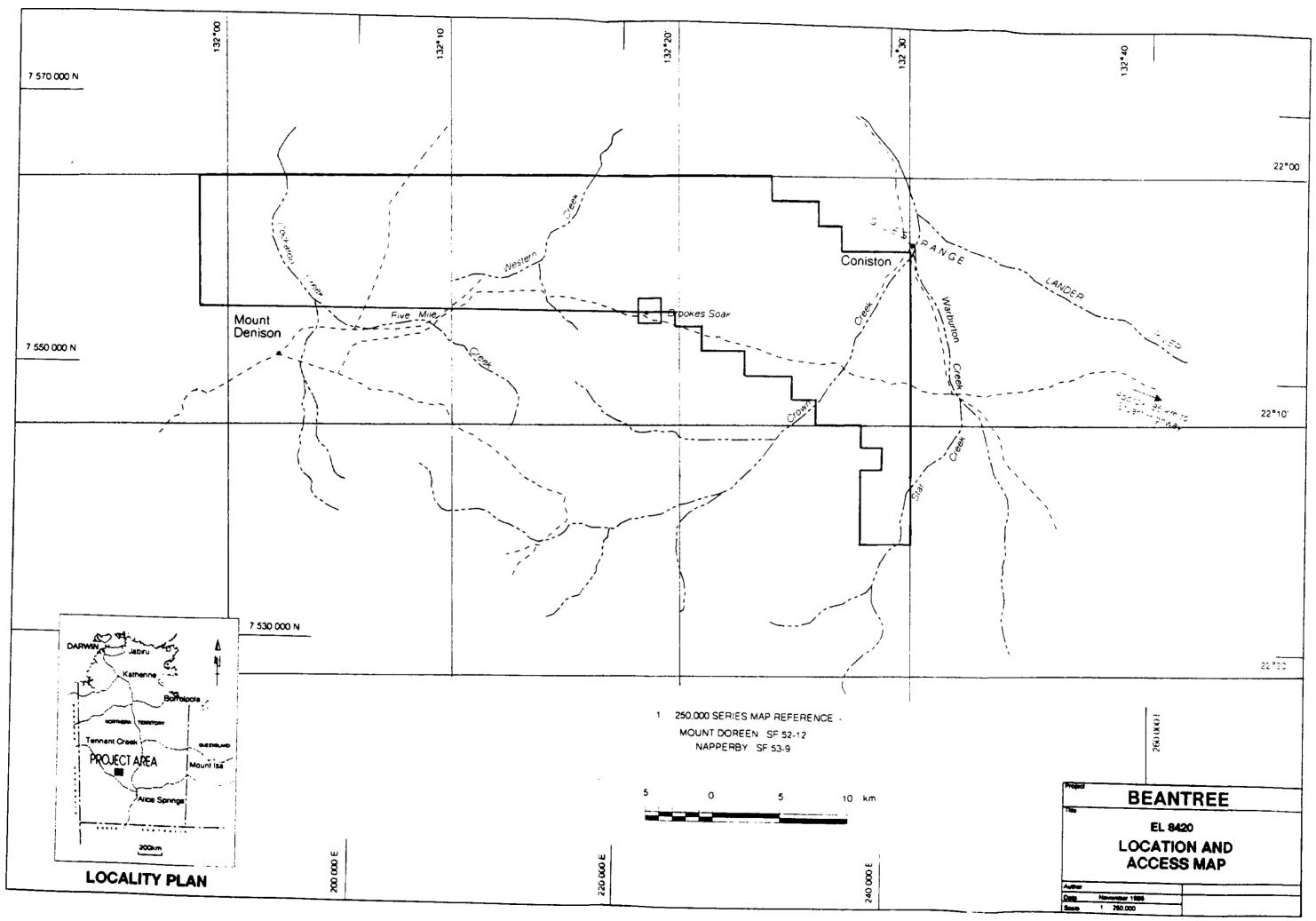


Figure 1

Drainage in the region is dominated by the Cockatoo Creek, Five Mile Creek, Western Creek and the Crown Creek all draining to the north.

Vegetation in the area is sparse with spinifex, cassia shrubs and low mallee and acacia (mulga) trees with isolated clusters of ghost gums and tea trees along the main, intermittent water courses.

#### 5.0 REGIONAL AND TENEMENT GEOLOGY

The project area is situated in the north-western portion of the Early to Mid Proterozoic Arunta Orogenic Domain.

The Arunta Orogenic Domain is developed in metamorphosed sediments and igneous rocks which have been extensively invaded by a range of granitic bodies.

The Arunta Orogenic Domain is structurally complex and potentially lithologically correlative with the Granites-Tanami Block.

The project area is dominated by the Wangalo Granite which is a coarse porphyritic granite with aligned feldspar. Mapped outcrop to the north-west of the granite consists of Lander Rock Beds (LRB), Wickstead Creek Beds and Mt Stafford Beds. These units are described as follows:

Lander Rock Beds (LRB): schistose peltic metasediments and quartzo-feldspathic

gneiss

Wickstead Creek Beds:

calc-silicate rock, marble, gneiss, schists

Mt Stafford Beds:

spotted and layered cordierite hornfels

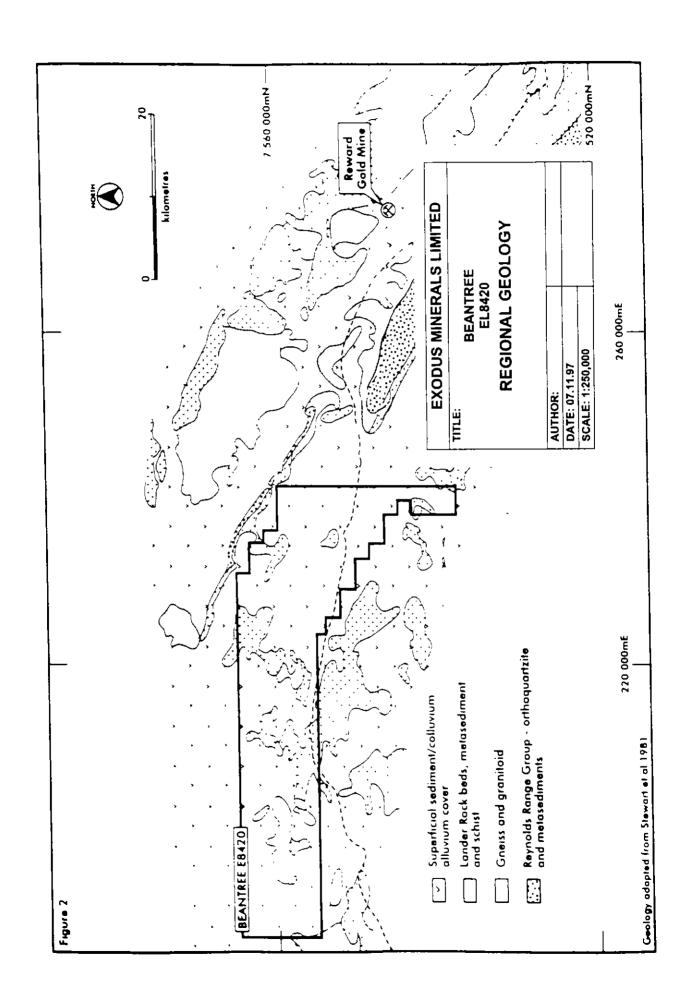
Structurally the area is dominated by north-west to south-east trending structures within the granite.

Reconnaissance and shallow drilling has identified an abundance of granite, orthogneiss and migmatitic granite dominating the project area.

#### 6.0 PREVIOUS EXPLORATION

Previous exploration has included:

- Airborne Magnetic and Radiometric Survey
- Regional Soil and Lag Sampling
- Shallow Reconnaissance RAB Drilling
- Shallow Regional Vacuum Drilling
- Regional Gravity Survey



The recently completed Regional Gravity Survey data has shown a stark contrast between the granites and the sedimentary sequences enabling broad areas of potential Lander Rock Beds to be outlined.

# 7.0 EXPLORATION FOR THE PERIOD 01.11.96 – 31.10.97

#### 7.1 Data Review

On becoming operators of the Exploration Licence 8420 (Beantree), the first stage of exploration by Exodus was to conduct a full and thorough review of work completed and data collected. The aim of this review was to determine what exploration techniques are successful in the project area, what the area's of mineralogical interest are and what needs to be done to better understand these areas.

## 7.2 Geomorphological Interpretation

A geomorphological interpretation over the project area was completed at 1:50,000 scale from aerial photography (Plate 1). This interpretation was validated in the field via a series of traverses across the project area during an orientation and general prospecting trip.

#### 7.3 DEMS

A Digital Elevation Mapping (DEM) Survey, covering the entire project was initiated at the end of September 1997, with results expected by mid November 1997.

Processing and computer enhancement of the digital data obtained by this survey has enabled the generation of an orthophoto mosaic, a detailed contour plot and shaded relief images over the project area. These products have proven useful in the further interpretation of geological and geomorphological features. They also help to define subtle changes in elevation that may indicate the presence of otherwise undetectable structures.

At the time of writing of this report, final images and products were not available due to unforeseen delays in final processing and printing. As a result, interpretation and hard copies of these images will be included in subsequent reports.

# 8.0 CONCLUSIONS AND RECOMMENDATIONS

Work carried out to date has shown that the project area is dominated by granite, orthogneiss and migmatic granite, either exposed or under cover. Of the Lander Rock Beds identified in the area, most have been metamorphosed into upper Amphibolite facies, and were hence deemed unprospective.

However, for this area to be ruled out as prospective for gold mineralisation a greater understanding of the structural, metamorphic, timing and general geological constraints of the mineralisation identified on the adjacent EL 7343 must be reached.

### 9.0 EXPENDITURE FOR 01.11.96 – 31.10.97

Expenditure by Normandy and Exodus for the 01.11.96 - 31.10.97 tenement year totalled \$17,720.

Expenditure by Normandy for EL8420 (Beantree) for the period 1 November 1996 to 31 October 1997 totalled \$1,601 as detailed below.

**Normandy Expenditure for 03.10.96 – 02.10.97** 

| Salaries and Wages         | 1,031          |
|----------------------------|----------------|
| Regional Office Allocation | 377            |
| Depreciation               | 193            |
| TOTAL                      | <u>\$1,601</u> |

Expenditure by Exodus for EL 8420 (Beantree) for the period 1 November 1996 to 31 October 1997 totalled \$16,120 as detailed below.

**Exodus Expenditure for 03.10.96 – 02.10.97** 

| Allocated Salary               | 3,286           |
|--------------------------------|-----------------|
| Contractor – Other             | 409             |
| Contractor Computer            | 1,873           |
| DEMS                           | 4,000           |
| Drafting                       | 37              |
| Exploration Equipment          | 418             |
| Field Supplies                 | 506             |
| Field Vehicle                  | 1,370           |
| Freight                        | 36              |
| Maps                           | 69              |
| Travel – accommodation & meals | 444             |
| Travel – fares                 | 630             |
| Overhead                       | 3,042           |
| TOTAL                          | <u>\$16,120</u> |

#### 10.0 FORWARD WORK PROGRAMME AND EXPENDITURE FOR 01.11.97 -31.10.98

Exodus proposes to undertake additional modelling of aeromagnetic data and DEMS, along with field validation to better interpret the geology and geomorphology. Reconnaissance sampling will follow up both the geological and geomorphological Geochemical orientation studies based on the geomorphological interpretation will be carried out. Dependent on the outcome of these programmes, a surface or shallow vacuum drilling regional geochemical sampling programme would be undertaken over areas considered most prospective. An approximate costing is given below:

| • | Remodelling/interpretation of aeromagnetics     | \$2,000  |
|---|---|----------|
| • | Stress mapping                                  | \$2,000  |
| • | Orientation geochemical studies                 | \$3,000  |
| • | Integrated geological interpretation involving: |          |
|   | - DEMS  |          |
|   | - aeromagnetics                                 |          |
|   | - aerial photography                            |          |
|   | - general reconnaissance prospecting            | \$3,000  |
| • | Surface/shallow drilling geochemical sampling   | \$5,000  |
|   | TOTAL   | \$15,000 |

Accordingly, Exodus Minerals Limited proposes a covenant for E8420 for 1997/98 tenement year of \$15,000.

REF: TG520D doc

# **PLATES**

