PEGASUS GOLD
AUSTRALIA PTY LTD

EL 8864 - WOOLNGI
MOUNT TODD DISTRICT, NT

FINAL REPORT ON EXPLORATION

Distribution
Pegasus Mt Todd x 1
NT DME x 1

Author : Nick Burn
Date : January 1997
Reference: 0197.017
CONTENTS

1. INTRODUCTION

2. LOCATION AND ACCESS

3. REGIONAL GEOLOGY

4. 1996 EXPLORATION PROGRAMME
   4.1 Geophysics

5. CONCLUSIONS

6. EXPENDITURE STATEMENT
FIGURES

Figure 1. Tenement Location

Figure 2. Regional Geological Setting

Figure 3. EL 8864 Total Field Magnetic Contours
1. **INTRODUCTION**

Exploration Licence 8864 (Woolngi) was granted to Zapopan NL (now Pegasus Gold Australia Pty Ltd) on 10 November 1995 for a period of 4 years. The licence comprises 4 graticular blocks for an area of 13km² with an area excised by mineral claims. The licence was surrendered on 21 November 1996.

This report details all exploration carried out by Pegasus during the term of EL 8864.

2. **LOCATION AND ACCESS**

EL 8864 (Woolngi) is located approximately 55km northwest of Katherine, and some 15km west of the Mt Todd Gold Mine. Access can be gained via the Stuart Highway and 4-wheel drive tracks along the Fergusson River. (*Figure 1*).

The region is of moderate to rugged relief and the country is well incised by abundant small creeks and drainage features.

3. **REGIONAL GEOLOGY**

The Woolngi area is located within the southeastern portion of the Early Proterozoic Pine Creek Geosyncline. Metasediments, granitoids, basic intrusives, and acid and intermediate volcanic rocks occur within this geological province (*Figure 2*).

Within the Mt Todd District, Early Proterozoic sediments belonging to the Burrell Creek Formation are dominant. These rocks consists primarily of interbedded greywackes, siltstones, and shales of turbidite affinity, which are interdispersed with minor volcanics. The Burrell Creek Formation is host to the major gold occurrences in the Mt Todd - Driffield region.

Locally, within EL 8864, strongly metamorphosed Burrell Creek formation sediments are located within an embyament of the Cullen Batholith. Extrusion of porphyritic trachyandesites and rhyodacites have formed a flat-lying cover over a portion of the sediment.

4. **1996 EXPLORATION PROGRAMME**

4.1 **Geophysics**

A regional airborne geophysical survey, including partial coverage of EL 8864 was completed for Zapopan by World Geoscience during June 1995 at 50 m flight line spacing. Specifications of the survey are detailed below:

- **Aircraft**: VH-ADH C206
- **Magnetometer**: Split beam cesium scintrex VIW2321-CS2
  - Resolution: 0.001 nan Tesla
  - Cycle Rate: 0.1 seconds
  - Sample Interval: 60 metres
- **Spectrometer**: Packets Perm. 1000 258 Channel
  - Volume: 16.56 litres
  - Cycle Rate: 1.0 seconds
  - Sample Internal: 60 metres
- **Date Acquisition**: Packets Pads 1000 digital acquisition systems
  - 11 Channel RMS GR33A Chart Recorder
Flight Line Spacing  Traverse Lines : 50 metres  
                    Tie Lines : 984 metres  
Flight Line Direction  Traverse Lines : 270 - 090 degrees  
                    Tie Lines : 000 - 180 degrees  
Survey Height  60 metres - mean terrain clearance  
Navigation  GPS satellite positioning system.

See Figure 3 for total field magnetic contours.

Interpretation of the airborne geophysical survey flown during June 1995 was undertaken by an outside consultant, Southern Geoscience Pty Ltd.

5. CONCLUSIONS

Following a review of historical literature and previous exploration within the licence area, and the interpretation of the recently flown airborne geophysics, Pegasus concluded that the potential for economic mineralisation is low. The licence was surrendered on 21 November 1996.

6. EXPENDITURE STATEMENT

Expenditure on EL 8864 for the term of the licence is listed below.

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geophysics</td>
<td>$1,000</td>
</tr>
<tr>
<td>Administration</td>
<td>$1,150</td>
</tr>
<tr>
<td></td>
<td>$1,150</td>
</tr>
</tbody>
</table>