

**Petroleum Exploration Licence 187**

**Annual Report 2005**

**Neo Oil Pty Limited**

**March 2006**

## **TABLE of CONTENTS**

- 1. Introduction**
- 2. Work Completed**
- 3. Reporting Against Requirements of the Petroleum Act 2000**
- 4. Expenditure for Year 1**

**Tables**

**Figures**

**Appendices**

## **LIST of TABLES**

**Table 1.** Proposed Work Programmes for PEL 187

**Table 2.** Expenditure for Year 1 of PEL 187

## **LIST of FIGURES**

<b>Figure</b>	<b>Title</b>
<b>1.</b>	Mount Gambia Gravity Survey Station Locations with Bouguer Anomaly Contours And Zoned Colour Image February 2006

## **LIST of APPENDICES**

*Commercial in Confidence*

**APPENDIX 1** MOUNT GAMBIA GRAVITY SURVEY – PEL 187  
Prepared by Haines Surveys Pty Ltd for Neo Oil Pty Ltd  
January – February 2006

**APPENDIX 2** GRAVITY DATA IN PEL 187,  
SOUTHEAST SOUTH AUSTRALIA  
Prepared by Stewart Geophysical Consultants Pty Ltd  
for Neo Oil Pty Ltd  
February 2006

## **1. Introduction**

PEL 187 was granted to Neo Oil Pty Ltd (“Neo”) on 28 January 2005, and covers an area of 268 square kilometres.

Neo’s work programme commitment for the first year was geological and geophysical studies, including a gravity survey (Table 1). The objective was to improve the geological understanding of the bedrock and basin architecture in order to identify high potential trap sites for hydrocarbons.

## **2. Work Completed**

In accordance with the proposed work programme, Neo has compiled a data base of geophysical and borehole data for PEL 187.

The gravity survey was undertaken in January and February 2006, following compliance with PIRSA’s field work permitting requirements, which took several months to complete. Gravity surveying was mostly carried out along existing roads and tracks as far as possible to avoid the logistical task of notification of landholders during the first year work, which would have delayed the gravity survey by several months. Some 566 gravity stations were read along 57 separate lines lying southwest of Mount Gambier. Station spacing was nominally 500 metres along all lines. Full technical details of the gravity survey are provided in an attached report by Haines Surveys (Appendix 1). The coverage and a preliminary bouguer gravity map from the Haines Surveys report is reproduced below (Figure 1).

The gravity data was provided to Stewart Geophysical Consultants Pty Ltd, who merged the new data with existing Geoscience Australia gravity data. It was concluded that while the new data provided some further detail over PEL 187, many of the new traverses repeated the previous data coverage and thus did not add greatly to the overall picture (see report by Stewart Geophysics in Appendix 2). The largest and most interesting feature within PEL187 is a conspicuous positive anomaly at the western end of the area. Another anomaly of possible interest is centred around 482000 m E, 5810000 m N, at the southern margin of the large gravity low (basin) to the north of PEL 187.

Neither of these features and several other minor features are particularly well defined and it was recommended that further infill gravity observations be undertaken to improve the definition, especially to determine the locations of possible bounding faults. It was also recommended that seismic sections across the possible structures be compared with the gravity data.

### **3. Reporting Against Requirements of the Petroleum Act 2000**

**(a) Summary of regulated activities conducted under the licence during the year**

Neo carried out a gravity survey over a portion of PEL 187, which is a regulated activity under the Petroleum Act 2000.

**(b) Report for the year on compliance with the Act, these regulations, the licence and any relevant statement of environmental objectives**

The gravity survey was carried out along existing roads and tracks in a manner fully compliant with the Act and regulations, and no environmental disturbance was caused. An instance of non-compliance involved not submitting the annual report within 2 months after the end of the licence year as required by Regulation 33. This was due to the delay in receiving all PIRSA approvals for the field work and then delays in obtaining field crews over the New Year period, and the time subsequently required for interpretation and reporting of data.

**(c) Actions to rectify non-compliance with obligations imposed by the Act, these regulations or the licence, and to minimise the likelihood of the recurrence of any such non-compliance**

Provided land holder access requirements can be concluded in a timely manner, and subject to the availability of field crews, it is not expected there will be a repeat of this non-compliance in the future.

**(d) A summary of any management system audits undertaken during the relevant licence year, including information on any failure or deficiency identified by the audit and any corrective action that has, or will be, taken**

Not applicable

**(e) List all reports and data relevant to the operation of the Act during the relevant licence year**

None

**(f) Report of incidents reportable to the Minister under the Act and regulations**

None reported

**(g) Report on any reasonably foreseeable threats that reasonably present, or may present, a hazard to facilities or activities under the licence, and a report on any corrective action that has, or will be, taken.**

No threats identified

**(h) Operations proposed for the ensuing year**

During year 2 it is proposed to infill current gravity data and integrate with available seismic data in accordance with the year 2 work proposal and the recommendations of Stewart Geophysical Consultants (see Appendix 2). This will require a logistical exercise of notifying relevant landholders, which was not necessary during year 1.

#### **4. Expenditure for Year 1**

Expenditure for the first year of PEL 187 is listed in Table 2.

*Commerical in Confidence*

**TABLE 1 Proposed Work Programmes for PEL 187**

<b>Year of Term of Licence</b>	<b>Minimum Work Requirements</b>
<b>One</b>	Gravity survey; Geological and Geophysical studies
<b>Two</b>	Gravity survey; Geological and Geophysical studies
<b>Three</b>	30 km 2D Seismic; Data Review
<b>Four</b>	One Well
<b>Five</b>	One Well

