

Geothermal Resources Ltd

ABN 45 115 281 144

ANNUAL REPORT

**GEOHERMAL EXPLORATION LICENCES
208 - 210**

FOR THE PERIOD ENDING

10 AUGUST 2006

August 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 Programme for GELs 208 - 210

Table 2. Expenditure for Year 1 of GEL 208

Table 3. Expenditure for Year 1 of GEL 209

Table 4. Expenditure for Year 1 of GEL 210

LIST of FIGURES

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LIST of APPENDICES

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1. Introduction

GELs 208, 209 and 210 were granted to Geothermal Resources Limited (“Geothermal Resources”) on 11 August 2005.

Geothermal Resources work programme commitment for the first year was compilation and interpretation of all existing geophysical data (Table 1). This was to be supplemented by gravity surveying in order to better define the known regional gravity low in the area and so establish more details of the bedrock / cover relationships.

Adjacent to GEL’s 208, 209 and 210 Geothermal Resources also holds existing GEL 181. An overall or “grouped” exploration approach to the entire GEL block has been accepted by PIRSA.

2. Work Completed

In accordance with the proposed work programme, Geothermal Resources has compiled a comprehensive data base of all geophysical and borehole data for GELs 208 -210. This work confirmed Geothermal Resources original reason for taking out the GELs, namely that the area was underlain by a large gravity low that was probably caused by a buried granite body rather than a thick sequence of Arrowie Basin sediments. The planned gravity survey was delayed for several reasons as explained below.

Firstly, in view of the proximity and therefore direct relevance of the 2003-2004 Curnamona Deep Seismic Reflection Survey, it was decided to wait until the public release of this data. This did not occur until the workshop held on 30 November 2005. As expected the results of this seismic survey were extremely pertinent to understanding the subsurface geology of GELs 208 - 210. In particular, interpretations of the reflection profiles by pmd*CRC, Geoscience Australia and PIRSA experts indicated that much of the area in the vicinity of GELs 208 - 210 was underlain by an almost continuous blanket of granite at 2.5 -5 km depth (Figure 1). Notably, this coincided with the large gravity low, again providing support that it was caused by a large granitic complex at depth (Figure 2).

Secondly, during the course of compilation of geophysical data, it was learned that Southern Cross Resources had carried out quite extensive gravity surveying over GELs 208 - 210 in previous years as part of their uranium palaeochannel exploration work in the vicinity of the Gould’s Dam project. Negotiations were held with Southern Cross Resources who kindly provided a copy of their gravity survey results to Geothermal Resources late in the year on the understanding that Geothermal Resources would reciprocate with any infill data that it generated. It transpired that gravity readings had been taken over much of GELs 208 - 210 on a 1x1 km spacing (Figure 3). This data confirmed the regional gravity low in considerably more detail and it was fortuitous that Geothermal Resources planned gravity survey had not taken place otherwise there would have been unnecessary duplication. A revised gravity survey is planned to infill areas not adequately covered by the Southern Cross survey work.

Geothermal Resources applied for, and was offered, a PACE grant (DPY 3-77) of \$100,000 to assist with drilling 5 holes to a nominal depth of 600 metres in five separate locations for the purpose of down hole temperature testing and geothermal gradient calculations within the large granite pluton (see Appendix 1 for PACE proposal). Five locations will be tested initially because of the likelihood of variations in the heat generating capacity of the basement rocks owing to inhomogeneous distribution of radioactive minerals and also expected variable depths of the Moorowie Sub-basin sediments. Eight drill hole collar locations have been selected (Figure 4) based on careful study of all available geophysical data, including gravity, aeromagnetics and seismic lines in the region. Depending on contractor availability and budgets, not all of these holes may be drilled in Year 2.

In anticipation of the Year 2 drilling programme and in compliance with the requirements of the Petroleum Act, an Activity Notification document was prepared and lodged with PIRSA in July 2006. As part of this, required notification was sent to all relevant landholders and an Aboriginal Heritage Survey was conducted, which cleared all drill sites.

3. Corporate

During the reporting period Geothermal Resources raised \$3.0 million dollars via an IPO through the issue of 12,000,000 shares at 25 cents each and achieved listing on the ASX. This capital raising will allow Geothermal Resources to considerably increase its rate of exploration activity on the GELs over the next five years, with ability to access new capital when required.

In addition, considerable time was spent during the period preparing an application for a REDI (Renewable Energy Development Initiative) grant from the Federal Government. This application was successful in attracting a \$2.5 million dollar grant for the specific purpose of assisting with the research and development aspects of exploiting commercial geothermal energy resources with these GELs and GEL 181.

4. Reporting Against Requirements of the Petroleum Act 2000

(a) Summary of regulated activities conducted under the licence during the year
Geothermal Resources did not embark on any regulated activities under the Petroleum Act 2000 in GELs 208 - 210 during the period.

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

Geothermal Resources did not carry out the planned gravity survey as contemplated under the Year 1 minimum work requirement (see Table 1). As explained above, this arose because after grant of the GEL's it was found that Southern Cross Resources had carried out quite extensive gravity surveying over GELs 208 - 210 in previous years as

part of their uranium palaeochannel exploration work in the vicinity of the Gould's Dam project. Southern Cross Resources subsequently kindly provided a copy of their gravity survey results to Geothermal Resources. On loading and studying the data, it was judged that the 1x1 km gravity station spacing of the Southern Cross survey quite adequately defined the granite-related regional gravity low. Consequently, there was no necessity for Geothermal Resources to carry out its original planned gravity survey, as it would have resulted in unnecessary duplication.

(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

In the case of the planned gravity survey, as explained above no remedial actions were required, as adequate gravity data was obtained elsewhere for no cost, and the original objectives were achieved with no detriment to the overall work programme.

(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 complete at least 5 RC drillholes to 600 metres depth in accordance with the PACE proposal, grant and Activity Notification lodged with PIRSA in July 2006. This effectively brings forward by one year the shallow drilling programme that is designed to test heat flow measurements and geothermal gradients (see Table 1).

5. Expenditure for Year 1

Expenditure for the first year of GELs 208 - 210 is listed in Tables 2 - 4.

TABLE 1: Proposed Work Programmes for GELs 208 - 210

Year of Term of Licence	Minimum Work Requirements
One	Gravity survey
Two	Data review
Three	Drill one shallow hole
Four	Drill one deep pilot hole
Five	Drill one production well and one injection well

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TABLE 2

EXPENDITURE AND ACTIVITIES REPORT GEL 208

For twelve months ending : 10 August 2006
Operator : Geothermal Resources Ltd

Summary of Activities

Expenditure

Commercial in Confidence

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TABLE 3

EXPENDITURE AND ACTIVITIES REPORT GEL 209

For twelve months ending : 10 August 2006
Operator : Geothermal Resources Ltd

Summary of Activities

Expenditure

Commercial in Confidence

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TABLE 4

EXPENDITURE AND ACTIVITIES REPORT GEL 210

For twelve months ending : 10 August 2006
Operator : Geothermal Resources Ltd

Summary of Activities

Expenditure

Commercial in Confidence