GEL 603 – Licence year 1

Annual Report
2 May 2012 – 1 May 2013

GEL 603 - Moolawatana

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1. Introduction

Petratherm Ltd listed on the Australian Stock Exchange on 27 July 2004. Tenement GEL 603 was granted to MNGI Pty Ltd, a wholly owned subsidiary of Petratherm Ltd, on 2 May 2012, for a period of 5 years. The exploration license will expire on 1 May 2017.

The tenement is adjacent to Petratherm's Paralana tenements GEL 156 (Paralana), GEL 178 (Paralana East) and GEL 180 (Paralana South).

This report provides a summary of work activities performed on the tenement over the period 2 May 2012 to 1 May 2013 which represents Year 1 of the GEL 603.

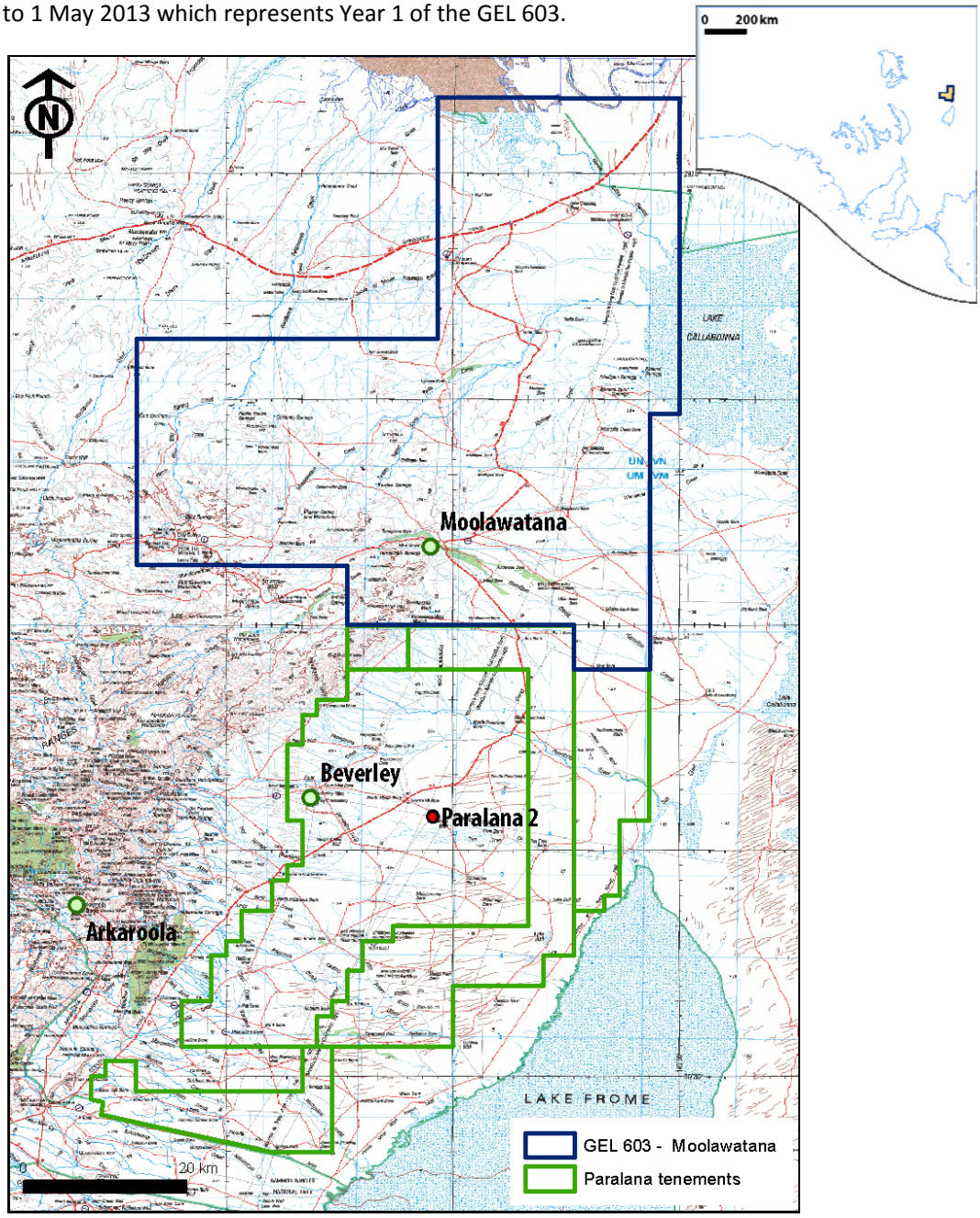

Figure 1: Location of GEL 603 and other Paralana tenements

2. Permit Summary

For the duration of the licence year, MNGI Pty Ltd (Petratherm) held a 100% interest for Geothermal Exploration Licence GEL 603 – Moolawatana.

The GEL 603 – Moolawatana is part of the Clean Energy Precinct (CEP), a project that aims to comprise a mix of gas, wind and solar power generation, and later geothermal power, and will be tailored to meet the needs of mining customers in the north-western part of South Australia. The Precinct project will aim to provide a competitive solution in terms of price, reliability and availability for both the power and carbon related aspects of those customers' requirements.

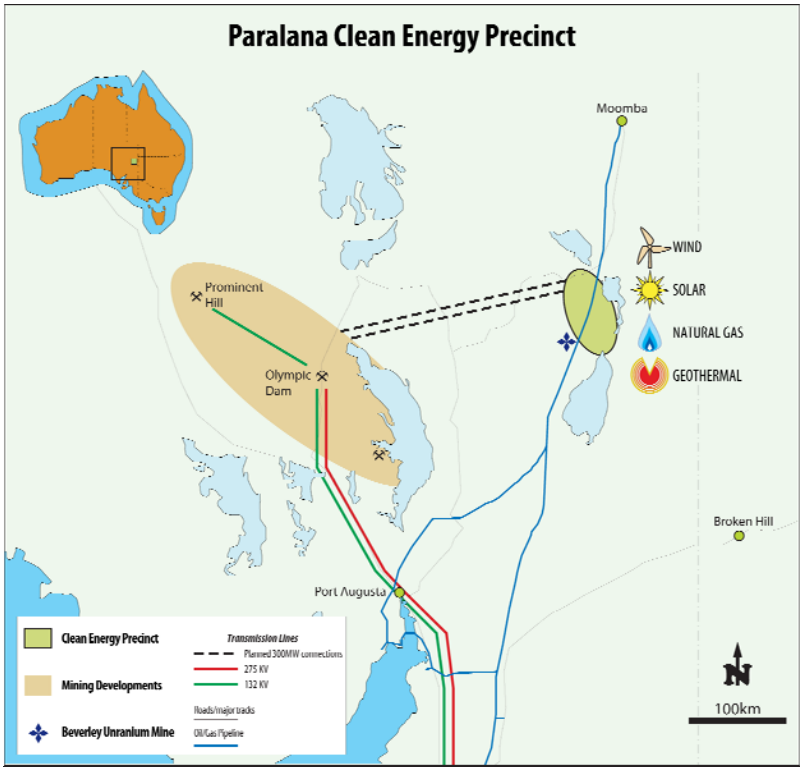

Figure 2: The Clean Energy Precinct concept

The current work commitments associated with the licence can be seen in Table 1.

Table 1 Work commitments by licence year

Licence Year	Licence Dates	Work Program for Moolawatana: GEL 603
Yr 1	**2 May 2012 – 1 May 2013**	• **Geological and geothermal studies**
Yr 2	*2 May 2013 – 1 May 2014*	• *Geological and geothermal studies*
Yr 3	*2 May 2014 – 1 May 2015*	• *Drill and complete one gradient test hole*
Yr 4	*2 May 2015 – 1 May 2016*	• *Geological and geothermal studies*
Yr 5	*2 May 2016 – 1 May 2017*	• *Drill and complete one geothermal test hole*

3. Regulated Activities – 2012/2013 Reporting Period

Pursuant to Regulation 33(2)(a) under the Act, the following is a summary of the regulated activities conducted under the licence during the 2011 reporting year.

Table 2 Summary of Activities

Activity	Refer to Section
Seismic Data Acquisition • *No regulated activities undertaken in the licence reporting period*	
Seismic Data Processing and Reprocessing • *No regulated activities undertaken in the licence reporting period*	
Geochemical Surveys • *No regulated activities undertaken in the licence reporting period*	
Drilling and Related Activities • *No regulated activities undertaken in the licence reporting period*	
Preliminary Survey Activities • *No regulated activities undertaken in the licence reporting period*	
Production and Processing • *No regulated activities undertaken in the licence reporting period*	
Pipeline/Flowline Construction and Operation • *No regulated activities undertaken in the licence reporting period*	

3.1 Work conducted

During the first year of the licence, Petratherm has gathered and reviewed available open file data including well logs and well completion reports relating to the Moolawatana tenement and surrounding areas, including the exploration well Yerila 1 drilled by the Company in 2005. There has also been a review of published literature on the geology of the area.

Available thermal data from existing exploration holes has been collected and reviewed. A regional 3D thermal model has been built in Geomodeller.

In addition to the geothermal exploration, the wind regime has been assessed on the tenement by a consulting group. Wind flow modelling has enabled a preliminary wind energy production estimate to be produced.

Several meetings were held with native title claimers and legal representatives to discuss and design the framework of future Indigenous Land Use Agreements.

Table 3 Work conducted in the reporting period, GEL 603

License Year	License dates	Work conducted

Yr 1	**2 May 2012 – 1 May 2013**	• **Geological and geothermal studies**
		  • Geological and geophysical review of open file data
		  • Re-evaluation of bore hole temperature, and thermal conductivity data
		  • 2D thermal models of potential target regions
		  • Regional 3D thermal modelling
		• **Wind regime assessment**
		  • Wind flow modelling
		  • Preliminary energy assessment

4 Compliance Issues

4.1 Licence and Regulatory Compliance

Pursuant to Regulations 33(2) (b) & (c), an annual report must include:
"a report for the year on compliance with the Act, these regulations, the licence and any relevant statement of environmental objectives;" ***and*** **"a statement concerning any action to rectify non compliance with obligations imposed by the Act, these regulations or the licence, and to minimise the likelihood of recurrence of any such non-compliances."**

MNGI (Petratherm) have complied with the relevant conditions under the Petroleum Act 2000 and the Petroleum Regulations 2000. Detailed information on the individual instances of non-compliance is provided below in designated sections.

Licence Non-Compliance

Table 4 List of licence non-compliances for current reporting year

No.	Stated Commitment	Reason for Non-Compliance	Rectification of Non-Compliance
No licence non-compliances occurred			

Regulatory Non-Compliance

Table 5 List of regulatory non-compliances for current reporting year

No.	Date	Activity	Details of Non-Compliance	Rectification of Non-Compliance
No regulatory non compliances occurred				

4.2 Management System Audits

Pursuant to Regulation 33(2) (d) under the Act, an annual report must include: **"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 actions that has, or will be taken".**

No management system audits were carried out during the licence year.

4.3 Report and Data Submissions

Table 6 List of report and data submissions during current licence reporting year

Description of Report/Data	***Date Due***	***Date Submitted***	***Compliant / Non-Compliant***
No reports were due in the reporting period			

4.4 Incidents

Pursuant to Regulation 33(2) (f), an annual report must include:
"in relation to any incidents reported to the Minister under the Act and these Regulations during the relevant licence year – an overall assessment and analysis of the incidents, including the identification and analysis of any trends that have emerged; and an overall assessment of the effectiveness of any action taken to rectify non-compliance with obligations imposed by the Act, these regulations or the licence, or to minimise the risk of recurrence of any such non-compliance".

Table 7 List of incidents during current licence reporting year

Date	***Activity***	***Incident Description***	***Type of Loss***	***Action to Rectify & Effectiveness of Action***	***Date Reported / Reported to Whom***
No reportable incidents occurred					

4.5 Threat Prevention

Pursuant to Regulation 33(2) (g) under the Act, an annual report must include:
"a report on any reasonably foreseeable threats (other than threats previously reported on) that reasonably presents, 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".
There are no foreseeable threats to the proposed exploration activities for the subject GELs other than the disruptive influence of occasional rain storms and dust storms. Exploration activity schedules are adjusted accordingly.

5 Future Work Programme

The work program for Year 2 of the Moolawatana Project tenement will be aimed at extending our understanding of the depth to basement, heat production, thermal conductivity of cover and basement lithologies, heat flow modelling to refine in situ temperature predictions.

Further wind and solar modelling will help defining the potential power generation from the other renewable energies in the Precinct. Preliminary economic modellings will be put together on transmission solutions and connection options.

Table 8 Moolawatana Project current work program summary

Licence Year	Licence Dates	Work Program for Moolawatana: GEL 603
Yr 1	*2 May 2012 – 1 May 2013*	• *Geological and geothermal studies*
Yr 2	**2 May 2013 – 1 May 2014**	• **Geological and geothermal studies**
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6 Expenditure Statement

GEL603 - Moolawatana Reporting Year Expenditure

Technical evaluation and analysis	$61,520
Consulting fees	$137,418
Operating and administrative expenses	$23,663
Total Expenditure Reporting Year	**$222,601**

GEL 603 – Moolawatana

Year 2 - Annual and Final Report

2 May 2012 – 1 May 2013

GEL 603 - Moolawatana

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Introduction

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As a result of changing market conditions the company submitted a surrender document for GEL 603 at the end of the reporting period. The following report details work conducted during year two of the licence, and also represents the final report for GEL 603

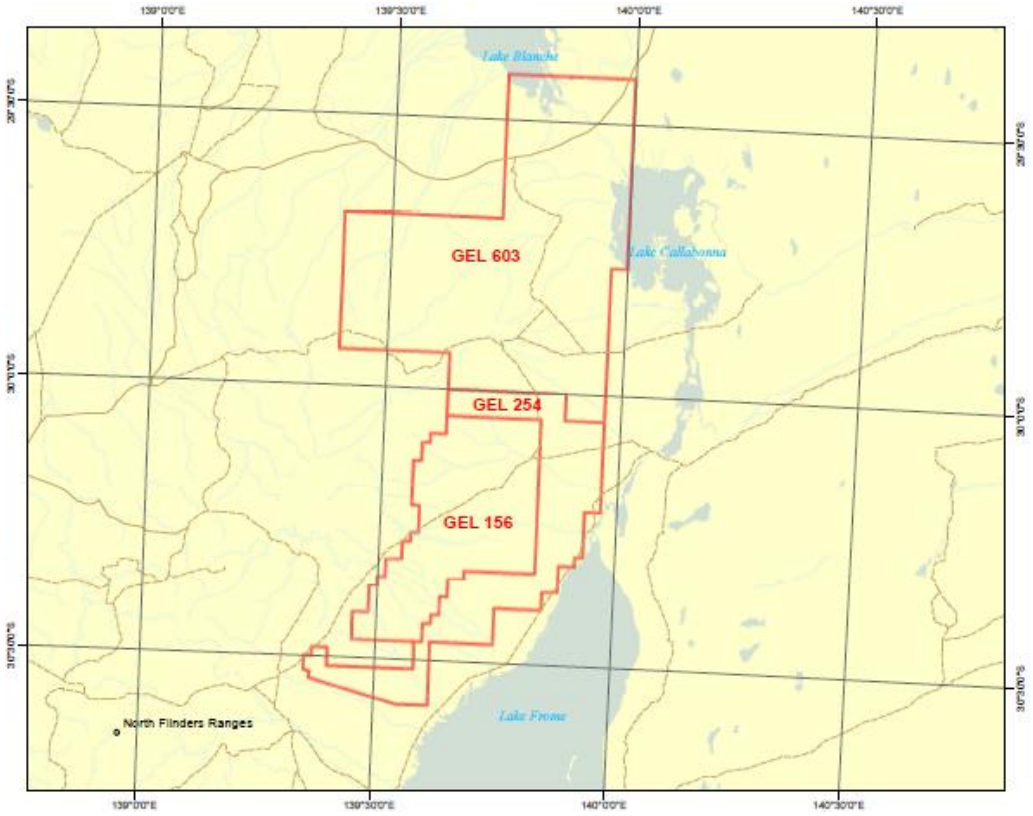

Figure 1: Location of GEL 603 and other Paralana tenements

1. Permit Summary

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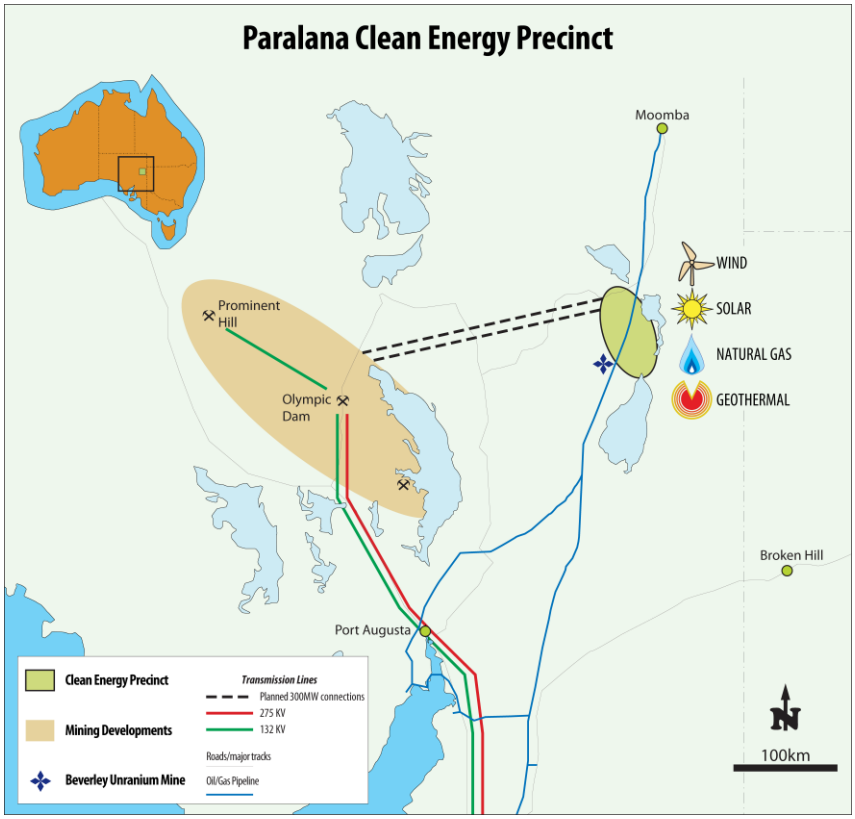
The GEL 603 – Moolawatana is part of the Clean Energy Precinct (CEP), a project that aims to comprise a mix of gas, wind and solar power generation, and later geothermal power, and will be tailored to meet the needs of mining customers in the north-western part of South Australia. The Precinct project aims to provide a competitive solution in terms of price, reliability and availability for both the power and carbon related aspects of those customers' requirements.



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Drilling and Related Activities • *No regulated activities undertaken in the licence reporting period*	
Preliminary Survey Activities • *No regulated activities undertaken in the licence reporting period*	
Production and Processing • *No regulated activities undertaken in the licence reporting period*	
Pipeline/Flowline Construction and Operation • *No regulated activities undertaken in the licence reporting period*	

3.1 Work conducted

During the second year of the licence, Petratherm reviewed available open file geological and geophysical data that had been compiled by the Company. Thermal conductivity models were generated to determine temperature depth profiles. Further assessment of the market opportunities was undertaken given the termination of the proposed Olympic Dam Expansion. The business model relies on a requirement for new gas and wind generation to support geothermal development on GEL603, and without the Olympic Dam Expansion there is no longer a viable business case for the project to continue.

Table 3 Work conducted in the reporting period, GEL 603

License Year	License dates	Work conducted
Yr 2	**2 May 2013 – 1 May 2014**	**Geological and geothermal studies** • Geological and geophysical review of open file data • Temperature depth model • Market analysis • Financial modelling

4 Compliance Issues

4.1 Licence and Regulatory Compliance

Pursuant to Regulations 33(2) (b) & (c), an annual report must include:
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MNGI (Petratherm) have complied with the relevant conditions under the Petroleum and Geothermal Energy Act 2000 and the Petroleum and Geothermal Energy Regulations 2013. Detailed information on the individual instances of non-compliance is provided below in designated sections.

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Regulatory Non-Compliance

Table 5 List of regulatory non-compliances for current reporting year

No.	Date	Activity	Details of Non-Compliance	Rectification of Non-Compliance
1	1/7/2014	Final Annual Report	Report submitted after due date (1/7/2014)	Report Submitted on 12/8/14

4.2 Management System Audits

Pursuant to Regulation 33(2) (d) under the Act, an annual report must include: **"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 actions that has, or will be taken".**

No management system audits were carried out during the licence year.

4.3 Report and Data Submissions

Table 6 List of report and data submissions during current licence reporting year

Description of Report/Data	*Date Due*	*Date Submitted*	*Compliant / Non-Compliant*
Year 1 Annual Report	01/07/2013	26/06/2013	Compliant

4.4 Incidents

Pursuant to Regulation 33(2) (f), an annual report must include:
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There are no foreseeable threats to the proposed exploration activities for the subject GELs other than the disruptive influence of occasional rain storms and dust storms. Exploration activity schedules are adjusted accordingly.

5 Surrender of Licence

The termination of the Olympic Dam Expansion deferred the need for new gas and wind power generation in the region. The Moolawatana Geothermal Project was contingent on these low risk energy sources being developed first which would allow transmission infrastructure to be built. Without this development and with capital markets for geothermal exploration becoming increasing difficult the Company has decided to relinquish the tenement.

6 Expenditure Statement

GEL603 - Moolawatana Reporting Year Expenditure

Technical evaluation and analysis	$15,772
Operating and administrative expenses	$2,366
Total Expenditure Reporting Year	**$18,138**