



PEL Annual Report

Petroleum Exploration Licence: PEL 219

May 2009 – May 2010

- **Name of Licence:** PEL 219
- **Licence Holder:** Syngas Ltd (formerly GulfX Ltd)

Rev	Date	Created by	Reviewed by	Reason for revision
A	26.10.2010	P Diano	M. Gray	Draft for review
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Syngas Limited

Annual Report

Licence Year 2009

May 2009 – May 2010

Petroleum Exploration Licence 219

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1 Introduction

Petroleum Exploration Licence (PEL) 219 was granted on 27 May 2008 and was approved for surrender on 2nd June 2010. The licence was located over a 191 square kilometre area overlying the Moorlands coal-bearing sedimentary basin. PEL 219 was located approximately 120 kilometres south-east of Adelaide in South Australia. **This licence was held in conjunction with Mineral Exploration Licence (MEL) 3585 over the Moorlands coal deposit, the activities and expenditures for which are reported on separately to PIRSA.**

PEL 219 was held by Syngas as part of a portfolio of assets which includes Syngas' main activity area covered by MEL 3896. Both MEL 3896 and MEL 3585 cover tertiary coals, deposited at the same time and in similar geological depositional environments.

A geological study as well as wide ranging economic option assessments over the Moorlands Coal deposit were undertaken over the 2008 – 2009 reporting period. These assessments included, the economic viability of proceeding with a standalone coal-to-liquid project or contributing to the Clinton coal-to-liquid Project, coal seam methane gas prospectivity testing and coal mining and briquetting production options.

Some activities and expenditures completed and reported to PIRSA under MEL 3585 relate to the assessment of PEL 219. However, expenditure reporting has not been duplicated, with zero (nil) expenditures to report over this reporting period for PEL 219.

This report details the findings conducted during Licence Year 2 of PEL 219 (2008-2013 inclusive), in accordance with Regulation 33 of the Petroleum Act 2000.

PEL 219 was surrendered by Syngas on 25 May 2010 and subsequently approved by PIRSA on 2 June 2010. A copy of the surrender is presented in Appendix 1.

2 Permit Summary

For the duration of the licence year, licensees for PEL 219 were:

- *Syngas Limited, formerly GulfX Limited* 100% interest

Work commitments (including all variations) at the time of licensing, associated with PEL 219 can be seen in Table 1.

Table 1 Initial work commitments by licence year

Licence Year	Licence dates	Minimum Work Program
Year 1	May 2008 – May 2009	Geological & geophysical studies
Year 2	May 2009 – May 2010	Geological & geophysical studies
Year 3	May 2010 – May 2011	Geological & geophysical studies
Year 4	May 2011 – May 2012	Geological & geophysical studies
Year 5	May 2012 – May 2013	Drill one well

Licence Year 2 concluded on 26 May 2010. The following table displays the minimum work program (after all variations) and the findings up until the surrender of PEL 219 on 25 May 2010.

Table 2 Final work program and work completed (as of end of current reporting period) by licence year

Licence Year	Minimum Work Program	Actual Work
Year 1	Geological & geophysical studies	Geological study and Economic assessments, and related works, e.g. CSM testing.
Year 2	Geological & geophysical studies	No activity conducted during reporting period

3 Regulated Activities

Pursuant to Regulation 33(2) (a) under the Act, an annual report must include:

“a summary of the regulated activities conducted under the licence during the 2008-2009 year.”

This information is detailed below in designated sections.

Drilling and Related Activities

No regulated activities undertaken in the licence reporting period.

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, Gravity, Magnetic and Other Surveys

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.

Preliminary Survey Activities

No regulated activities undertaken in the licence reporting period.

Activities Completed for the Period

During the previous reporting period, the following activities related to PEL 219 were conducted:

a. Geological Study

The Moorlands deposit is located approximately 120 kilometres southeast of Adelaide. Moorlands was covered by Petroleum Exploration Licence (PEL) 219, the same area is covered by MEL 3585.

The Moorlands geology comprises of Permian, Mesozoic and Cainozoic sediments of the Murray Basin sedimentary unit, overlying Cambrian-Ordovician basement volcanics and intrusive igneous rocks of the Kanmantoo Group. Outcrops of basement strata are rare, although structural lineaments have been identified in the licence area.

The western boundary of the Murray Basin runs south easterly from Tailm Bend to King Island/Bordertown, and is represented as sparsely spread granite outcrops.

The aeromagnetics for MEL 3585 and related in PEL 219 are shown in Figure 1 below.

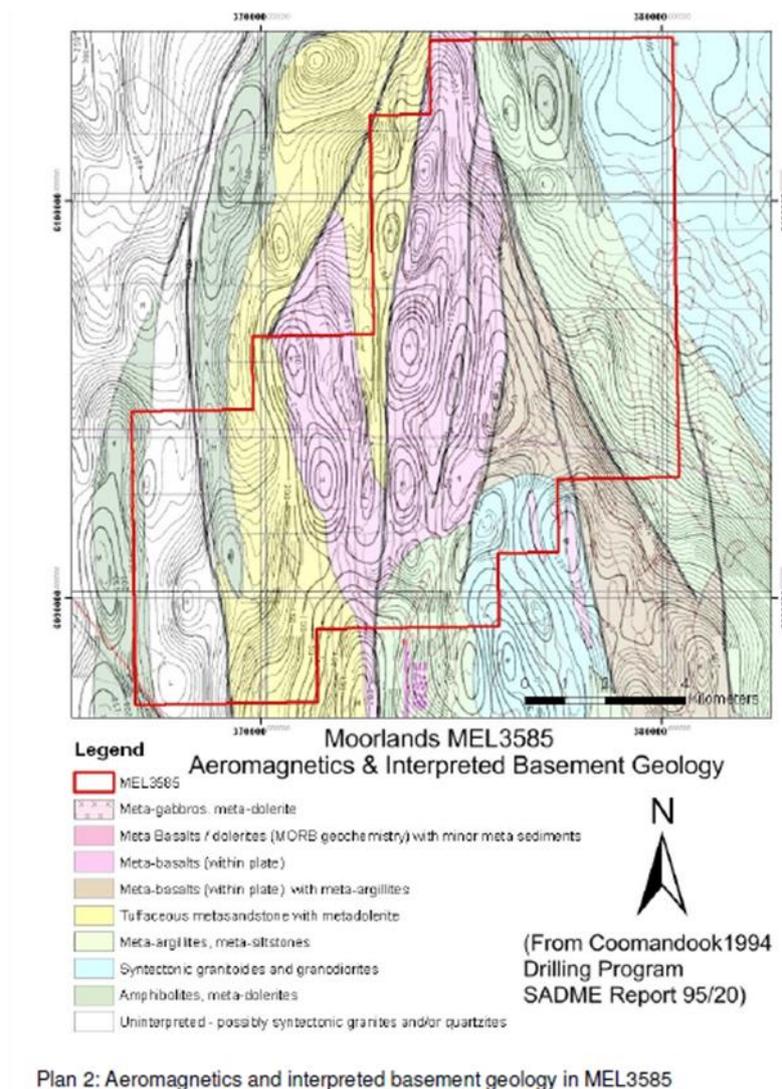
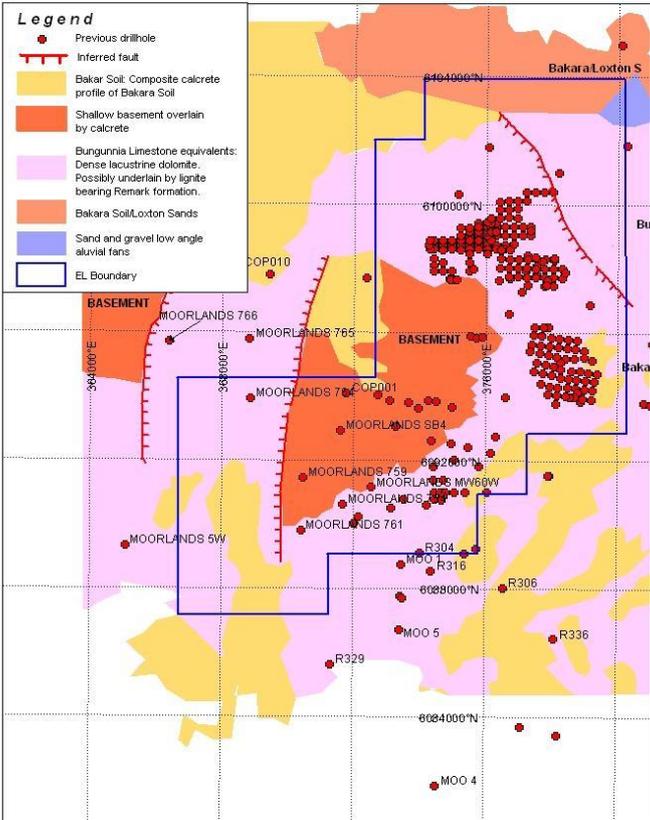


Figure 1: Aeromagnetic and interpreted basement geology in MEL 3585 and related in PEL 219

In the last reporting period, open file geological and analytical data was sourced from the South Australian government for approximately 600 past drill holes within PEL 219. The locations of these drill holes are shown in Figure 2 below (Note: many holes were drilled in closely spaced clusters, so are not individually discernable in Figure 2).



Moorlands MEL3585
 Surface Geology, Interpreted Faults & Previous Drillholes
 (From Pinnaroo 1:250,000 Geology, SADME, 1979)

Figure 2: Moorlands Surface Geology, Interpreted Faults and Previous Drill Holes

The northeast area of PEL 219 was heavily drilled prior to 1950 (an intense drilling program took place in 1922), with lower density drilling in the central area. The central area was then drilled by the SA Geological Survey and Pasmenco during the 1990’s, during exploration for base metal mineralisation in the basement. The southwest area remains largely undrilled. Many of the older drill logs reviewed were incomplete, as many were terminated in sandy strata without reaching basement.

For a number of drill logs reviewed to the immediate south of the licence area, intersections were commonly recorded as containing “black to brown, carbonaceous claystone” at depths shallower than 70 metres, with cumulative thicknesses of between 3 metres and 20 metres intersected. Basement, where intersected, is typically 70 metres to 90 metres in depth.

A drilling program was subsequently developed that would further test the prospectivity in terms of additional coal potentiality. This program is shown in Figure 3 below.

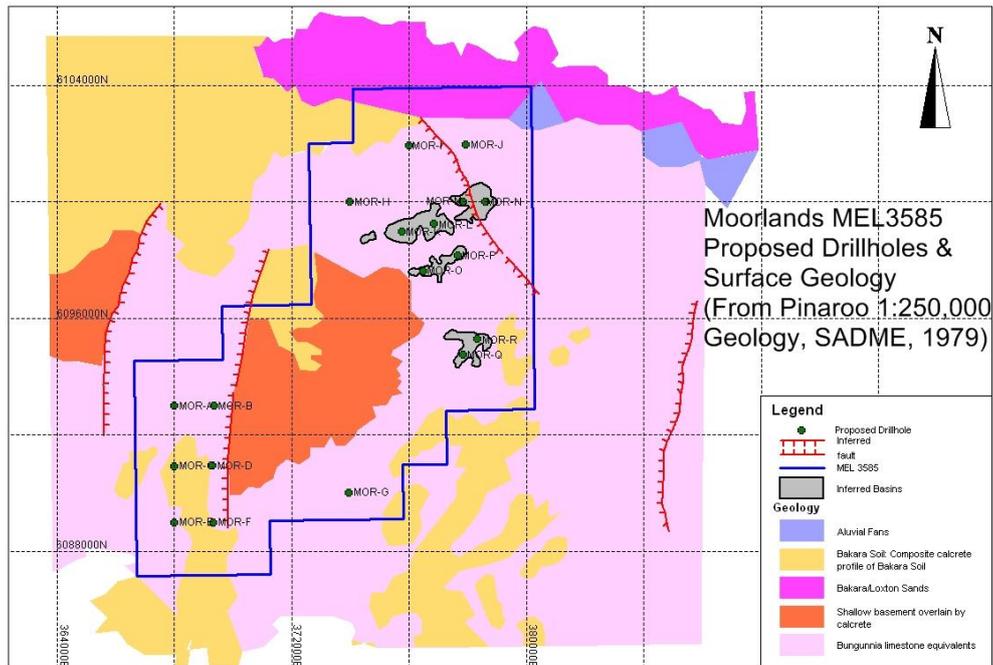


Figure 3: Moorlands Proposed Drill Holes and Surface Geology

No additional geological work or interpretations were completed during the current reporting period.

b. Economic Analysis

Subsequent to the development of the drilling program, various Economic Analyses were conducted. These economic assessments covering a range of options potentially relevant to the Moorlands coal deposit were undertaken during the last reporting period, namely:

- The potential for mining and transportation of Moorlands coal for use as supplementary feed to the Clinton Coal-to-Liquid Project located approximately 240 km northwest of Moorlands. **This option was found to be economically unviable.**
- The Moorlands coal prospectivity (assessed as having the potential to contain around 85 million tonnes of resource) is such that it **could not sustain a stand-alone minimum scale Coal-to-Liquid plant** consistent with that planned at Clinton Project. This requires feed (coal prospectivity) of in the order of 200 to 250 million tonnes of resource to sustain an adequate long term return on investment for a project of this nature.
- The potential for mining and drying and briquetting of the Moorlands coal for export was assessed. **This option is still under assessment through the ongoing technology watch on technology development undertaken by the Company. This continued work is covered under the latest MEL 3585 report.** Material degradation on export is a key issue, as this presents fines with the potential for spontaneous combustion (the coal is understood to be highly reactive on drying. It has a high volatile content). Furthermore, **the salty nature of the coal makes it only suitable for blending with higher quality coals in small proportions.** With salt levels understood to be at levels which disrupt conventional power plant boiler function if it was the primary feed material.

c. Related Area Work e.g. Coal Seam Methane Gas (CSM) Testing

Fresh coal from cored drill holes on MEL 3896, i.e. tertiary Clinton Coal Measure coals (of a same age of coals at Moorlands and very similar in nature) were tested in terms of coal seam methane gas content during the last reporting period. No methane gas was detected. This report is available on request.

Based on the similarities in coal quality between Clinton and Moorlands (see Table 3 below) i.e. similar depth from surface, similar cover etc, similar results in terms of coal seam methane gas prospectivity might reasonably be expected at Moorlands.

Table 3 Comparison of MEL 3896 and MEL 3585 Lignite Quality

Deposit <i>(average results)</i>	Moisture [%]	Ash [%]	Volatile Matter [%]	Fixed Carbon [%]	Sulphur [%]	Gross Wet Calorific Value [MJ/kg]
Clinton	56.06	9.3	18.8	15.8	1.5	9.8
Moorlands ¹	51	16	19	13	4	17

The source coal is low rank and close to surface covered by unconsolidated sediments giving limited opportunity for gas generation, emission and trapping.

The company surrendered PEL 219 during the reporting period on the basis that MEL 3585, which continues to be held by the Company, regulated under the Mining Act 1971, is sufficient to cover all future activities expected to be undertaken by the Company and only appropriate/applicable regulations will need to be met.

4 Compliance Issues

Licence and Regulatory Compliance

Overall, as the Company has **not** conducted any on-ground activities during the reporting period, as a result the Company has complied with the licence, regulatory and Statement of Environmental Objectives requirements.

The exceptions as a result of this lack of activity have been that the minimum direct work program expenditure was not been met and the licence has now been surrendered.

Information on the individual instances of non-compliance is provided below in designated sections.

¹ Source: Arithmetic mean of all past assayed drill core samples access from PIRSA's Open File database. Presented in the previous period report.

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
Nil			

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.	26/10/2010	Submission of annual report	Report for Year 2 was not submitted by the due date	Licence surrender. No further reporting requirements

Compliance with Statement of Environmental Objectives

Table 6 Compliance with Statement of Environmental Objectives

Objective	Assessment Criteria	Compliant/Non-Compliant (inc. Compliance statement)	Comments
N/A			

Management System Audits

There was no management system audits conducted during the current licence reporting period.

Report and Data Submissions

Table 7 List of report and data submissions during current licence reporting year

Description of Report/Data	Date Due	Date Submitted	Compliant / Non-Compliant
Annual Report	26/07/2010	26/10/2009	Compliant

Incidents

Table 8 List of incidents during current licence reporting year

Date of Incident	Activity	Incident Description	Type of Loss	Action to Rectify & Effectiveness of Action	Date Reported / Reported to Whom
Nil					

Threat Prevention

There were no risk assessments or HAZOPS undertaken during the reporting year as no work was completed.

Future Work Program

The Company has ceased all PEL 219 work in relation to Moorlands. However it **continues to monitor new technology break-throughs for mining, drying and briquetting of the Moorlands coal under MEL 3585**. Please refer to the current report for MEL 3585 for further information on this.

5 Expenditure Statement

6 Appendix 1

Surrender of Petroleum Exploration Licence – PEL 219



Date: 25th May 2010

Attention: Mr Shane Farrelly
Government of South Australia
Primary Industries and Resources SA

Email: shane.farrelly@sa.gov.au

Subject: Surrender of Petroleum Exploration Licence (PEL) 219 by Syngas Limited Customer ID P 65332

Dear Shane,

Syngas Limited recently received Tax Invoice no. P016660 from the Government of South Australia PIRSA requesting payment of Year 3 licence fees for PEL 219. The Board of Directors have resolved not to renew PEL 219. Thank you for your assistance during the period Syngas held this licence.

Furthermore, please note that Syngas Limited has recently moved office to Adelaide. The new office address and contact details are provided below.

If you have any queries, please do not hesitate to contact me.

Kind regards

Vanessa Cock
Office Manager