



- PEL 91-

Annual Report

**Licence Year 1
Term 2**

5 June 2008 to 4 June 2009

**Cooper / Eromanga Basin
South Australia**

CONTENTS

| | page |
|--|-------------|
| 1 Introduction | 3 |
| 2 Licence Summary | 3 |
| 3 Exploration Activity | 5 |
| 3.1 Drilling | 5 |
| 3.2 Seismic Data Acquisition | 5 |
| 3.3 Seismic Data Processing / Reprocessing | 5 |
| 3.4 Geochemical, Gravity, Magnetic and other Surveys | 5 |
| 3.5 Preliminary Survey Activities | 5 |
| 4 Compliance Issues | 6 |
| 4.1 Licence Non-compliance | 6 |
| 4.2 Regulatory Non-compliance | 6 |
| 4.3 SEO Non-compliance | 6 |
| 4.3.1 Drilling | 6 |
| 4.3.2 Seismic | 7 |
| 5 Management System Audits | 15 |
| 6 Report and Data Submissions | 15 |
| 7 Incidents | 16 |
| 8 Threat Prevention | 17 |
| 9 Future Work Program | 17 |
| 10 Statement of Expenditure | 18 |
| Appendix 1 Expenditure Statement | 19 |
| Tables | |
| Table 1 Original Work Commitments for Term 2 by Licence Year | 3 |
| Table 2 Compliance with Cooper Basin Operator's Statement of Environmental Objectives: (SEO) Geophysical Operations | 10 |
| Table 3 List of reports and Data Submissions to PIRSA | 16 |
| Figures | |
| Figure 1 Outline of Licence and Location of Wells - PEL 91 | 4 |
| Figure 2 Location of Modiolus 3D Seismic Survey PEL 91 and PEL 92 | 7 |
| Figure 3 Gas Audit of Photo Sites and Environmental Monitoring Points | 8 |

1 Introduction

Petroleum Exploration Licence No. 91 was granted on 8 January 2002. The Licence is located on the western margin of the Cooper/Eromanga Basin, South Australia.

The Licence was renewed after a 33.3 percent relinquishment, effective 5 June 2008 for a further 5 year Term.

This report details the work conducted during Licence Year 1 of the Second Licence Term (5 June 2008 to 4 June 2009) in accordance with Regulation 33 of the Petroleum Act 2000.

2 Licence Summary

Petroleum Exploration Licence 91 was originally awarded in January 2002 to:

Great Artesian Oil and Gas (formerly Tyers Investments) 100%

Beach Petroleum farmed into the Licence in December, 2002 and became the Operator. The working interests in PEL 91 subsequently became:

| | |
|---------------------------------------|------------|
| Great Artesian Oil and Gas | 60% |
| Beach Petroleum Ltd (Operator) | 40% |

These interests have remained unchanged.

The original work commitments for the second term of PEL 91 are detailed in Table 1 below:

Table 1: Original Work Commitments for Term 2 by Licence Year

| Licence Year | Licence Dates | Minimum Work Program |
|---------------------|---------------------------|---|
| Year 1 | 5 June 2008 - 4 June 2009 | G and G studies |
| Year 2 | 5 June 2009 - 4 June 2010 | 100 km 2D seismic acquisition, G & G studies |
| Year 3 | 5 June 2010 - 4 June 2011 | G and G studies |
| Year 4 | 5 June 2011 - 4 June 2012 | G and G studies |
| Year 5 | 5 June 2012 - 4 June 2013 | 1 well |

137 km² of the 332.7 km² Modiolus 3D seismic survey were acquired in PEL 91 during the period June-July 2008 (Licence Year 1), satisfying the Year 2 seismic commitment. The approved Work Program for the Second Term carries a well to be drilled in Licence Year 5; -it is the intention of the Joint Venture to drill two wells in the Licence during Licence Year 2.

There have been no periods of suspension applying to PEL 91 during the current Licence Term.

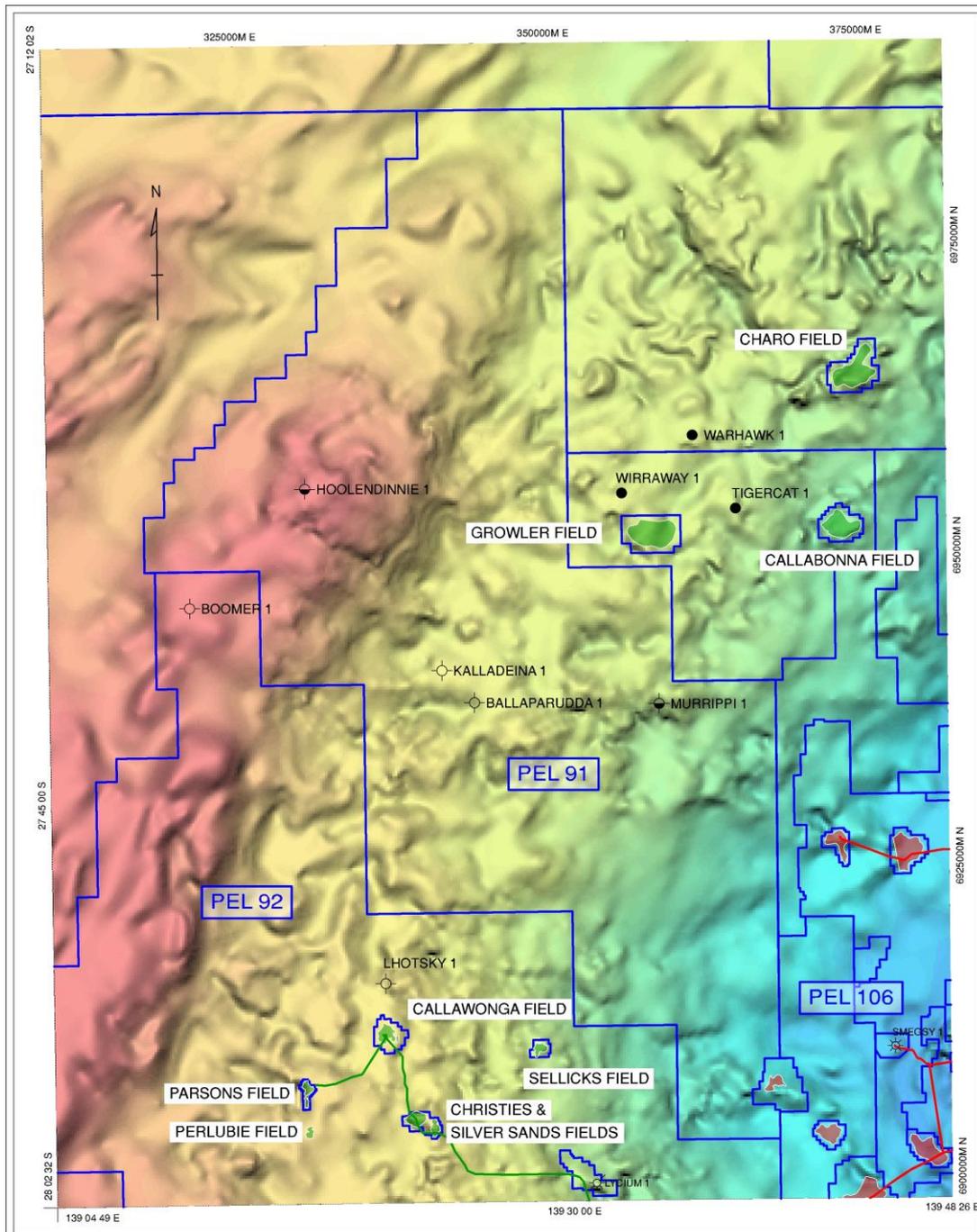


Figure 1 Outline of Licence and Location of Wells - PEL 91

3 Exploration Activity

3.1 Drilling

No wells were drilled during Year 1 of Term 2 of the Licence. Well Completion Reports for Ballaparuda-1 and Murrippi-1, drilled during Year 5 of the previous Licence Term, were, however submitted to PIRSA during Year 1 of the Second term (the report period).

3.2 Seismic Data Acquisition

In July 2008, 127 km² of the greater (PEL's 91 and 92) 332.7 km² (1219.2 linear km) Modiolus 3D seismic survey were recorded by Terrex Seismic Pty Ltd in PEL 91.

3.3 Seismic Data Processing / Reprocessing

Processing of the Modiolus Survey was carried out by WesternGeco.

3.4 Geochemical, Gravity, Magnetic and other surveys

No surveys other than the Modiolus 3D seismic survey were carried out in PEL 91 during Year 1 of the second Licence Term.

3.5 Preliminary Survey Activities

There were no Preliminary Survey Licences granted on PEL 91 during Year 1 of Term 2 and there were no Preliminary Survey Licences active on PEL 91 during Year 1 of Term 2.

4 Compliance Issues

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-compliance."

There were no instances during Year 1 of the PEL 91 Licence in which the Joint Venture failed to comply with either the requirements of the Licence, the Regulations of the 2000 Petroleum Act, or the objectives of the SEOs, as per below:

4.1 Licence Non-compliance

There were no instances during Year 1 - Term 2 of the PEL 91 Licence in which the Joint Venture failed to comply with 2000 Petroleum Act or the Conditions of the Licence.

4.2 Regulatory Non-compliance

There were no instances during Year 1 of Term 2 of the PEL 91 Licence in which the Joint Venture failed to comply with the Regulations of the 2000 Petroleum Act.

4.3 SEO Non-compliance

4.3.1 Drilling

Government approvals for the Joint Venture to drill the **Ballaparudda-1** and **Murrippi-1** wells were conditional on the Joint Venture committing to achieving the objectives defined in the "Cooper Basin Drilling and Well Operations Statement of Environmental Objectives - November 2003."

Neither well intersected any zones which were considered to have the potential for economic recovery of hydrocarbons and consequently they were both plugged and abandoned.

The Ballaparudda-1 well site was rehabilitated during the previous Licence Term. Although Murrippi-1 was drilled during Year 5 of the previous Licence Term (February - March 2008), rehabilitation of the site was undertaken in November 2008. No further well sites in PEL 91 require rehabilitation.

The Joint Venture is satisfied that it has met all of the objectives required by the "Cooper Basin **Drilling and Well Operations** Statement of Environmental Objectives (SEO) - November 2003".

4.3.2 Seismic

Government approval for the Joint Venture to undertake the **Modiolus 3D** seismic survey was conditional on the Joint Venture committing to the objectives defined in the "Cooper Basin Operator's Statement of Environmental Objectives: Geophysical Operations - July 2006."

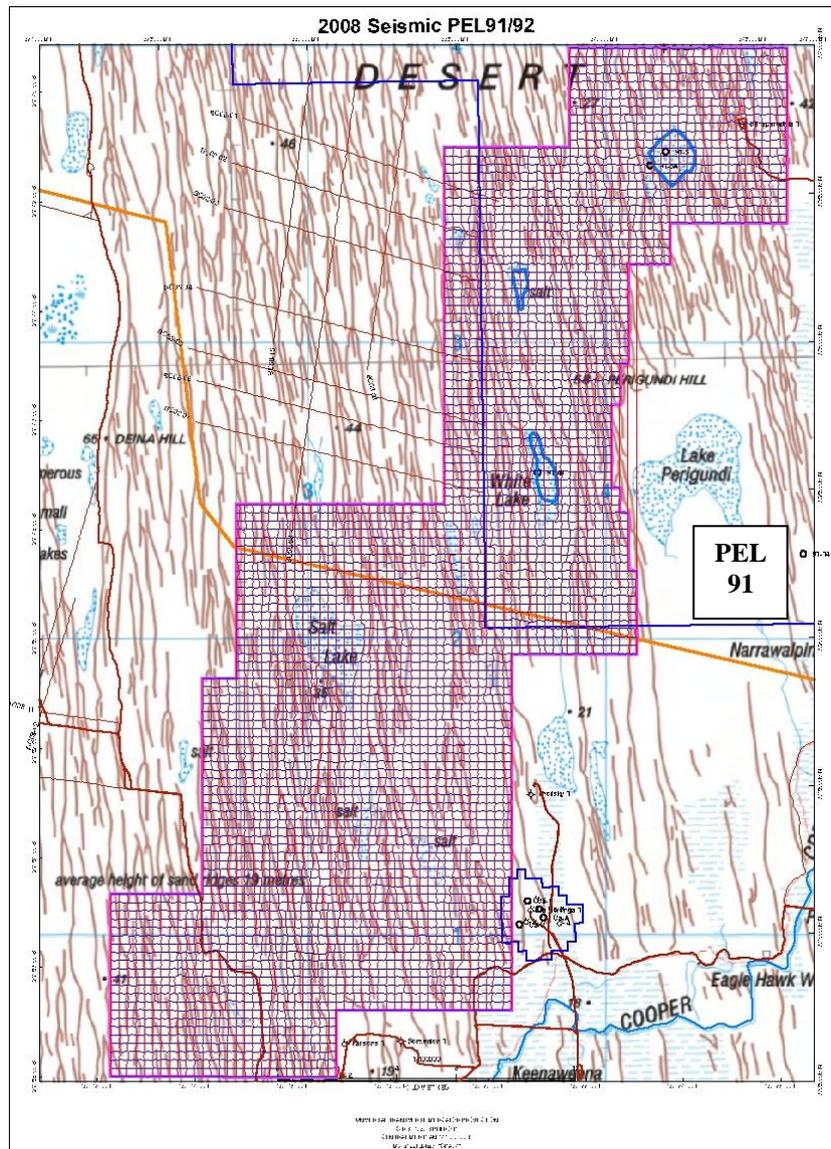


Figure 2 Location of Modiolus 3D Seismic Survey PEL 91 and PEL 92

The Joint Venture's strategies for achieving each of the SEO objectives during the recording of the Modiolus 3D survey are outlined in **Table 2**.

At the completion of the Modiolus survey, an assessment of the impacts from the survey was undertaken against a set of Goal Attainment Scaling (GAS) criteria. GAS audits were taken at 26 locations around the full spread of the Modiolus Survey, within both PEL 91 and within PEL 92. Most of the audit sites were located in PEL 92. Approximately twenty percent of the locations were in PEL 91.

In order to better assess the environmental impact of the survey and to allow systematic monitoring of the natural restoration rates, five Environmental Monitoring Points (EMPs) were established in PEL's 91 and 92 and these will be revisited annually over the next four years. GAS scores were obtained at each of the five locations as well as at the camp (located in PEL 92) and other areas considered representative of the area. Only one of the EMPs is located in PEL 91 (north eastern part of the survey).

The results of the 26 audits undertaken after completion of the acquisition of the seismic, against the GAS criteria, are presented as a bar chart below:

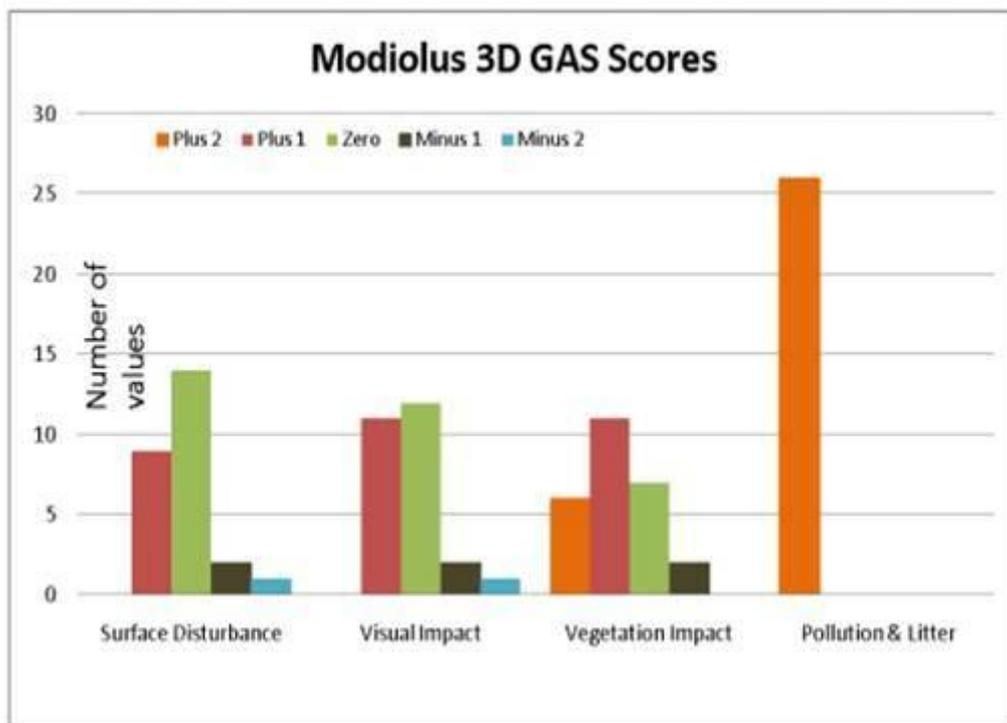


Figure 3 GAS Audit Modiolus Seismic Survey (PEL's 91 and 92)

The main environmental issue for the Modiolus Survey was access onto salt lakes. Access was attempted to provide infill by dynamite source in drilled holes. A large effort was undertaken to use vehicles and drilling units which would have the minimum pressure impact on the lakes. In spite of this effort there were two lakes in PEL 92 where significant surface disturbance and visual impact was caused due to bogging of vehicles and due to tyre tracks after substantial rains. Given the impact of the lake surveys attempted in PEL 92, the decision was made to bypass the lakes in PEL 91 and to not attempt to access them.

Negative GAS ratings for surface disturbance and visual impact were recorded for the two lakes over which seismic activity was attempted in PEL 92 and for the campsite (-1), also located in PEL 92.

GAS scores of -1 were recorded for vegetation impact at two line locations (one dune, one on a dogleg) in PEL 92.

No negative GAS scores were identified within the PEL 91 part of the survey.

Compliance with Statements of Environmental Objectives

Table 2: Compliance with "Cooper Basin Operator's Statement of Environmental Objectives: Geophysical Operations - July 2006"

| OBJECTIVE | ASSESSMENT CRITERIA | COMPLIANCE / NON-COMPLIANCE | COMMENTS |
|--|--|-----------------------------|--|
| <p>Objective 1: <i>Minimise the visual impact of operations.</i></p> | <p><u>Campsite and survey line preparation</u> Proposed survey lines and campsites have been appropriately located and prepared to minimise the visual impact.</p> <p>The attainment of 0, +1 or +2 GAS criteria for 'visual impact' objective listed in Appendix 3.</p> | <p><i>Compliant</i></p> | <p>Goal Attainment Scaling audits were taken at approximately 26 locations, spread throughout the 332.7 km² of survey recorded for the Modiolus 3D survey in PEL's 91 and 92. Approximately 20 percent of the lines were in PEL 91.</p> <p>Negative GAS scores were obtained IN PEL 92 where attempts were made to obtain seismic data across salt lakes and at the site of the field camp. No negative scores were obtained in the PEL 91 part of the survey.</p> <p>In witnessing the effect of seismic activity on the salt lake beds in PEL 92, the decision was made to bypass the lakes in PEL 91. It was the intention of the survey to acquire data over certain lakes in PEL 91.</p> <p>Despite the disturbance at these sites, the soil surface will rehabilitate naturally, although the visual impact may persist slightly longer than is usually the case.</p> |
| <p>Objective 2: <i>Minimise disturbance to and contamination of soil resources.</i></p> | <p><u>Campsite and survey line preparation</u> Attainment of 0, +1 or +2 GAS criteria for 'Minimise impacts to land surface' objective, as listed in Appendix 3.</p> <p>Proposed survey lines and campsites have been appropriately located and prepared to minimise the disturbance to soil resources.</p> | <p><i>Compliant</i></p> | <p>Refer to comments above for performance in achieving Objective 1.</p> |

TABLE 2 (con't): Compliance with "Cooper Basin Operator's Statement of Environmental Objectives: Geophysical Operations - July 2006"

| OBJECTIVE | ASSESSMENT CRITERIA | COMPLIANCE / NON-COMPLIANCE | COMMENTS |
|--|---|-----------------------------|--|
| <p>Objective 2: (Contd.) <i>Minimise disturbance to and contamination of soil resources</i></p> | <p><u>Fuel Storage and Handling</u> No refuelling occurs outside designated refuelling/servicing areas.</p> <p>Spills or leaks are immediately reported and clean up actions initiated. Records of spill events and corrective actions are maintained in accordance with company procedures.</p> <p>Appropriate spill response equipment is available on site.</p> | <p><i>Compliant</i></p> | <p>There were no incidents of soil contamination arising from the survey activities.</p> |
| <p>Objective 3: <i>Minimise disturbance to native vegetation and fauna.</i></p> | <p><u>Campsite and survey line preparation</u> The attainment of either 0, +1 or +2 GAS criteria for 'Impact on native vegetation' objective listed in Appendix 3.</p> <p>No mature trees are removed.</p> <p>Vehicle access to survey lines is to be via existing access tracks or pre-existing survey lines, except where they have rehabilitated.</p> <p>Other temporary access tracks may be utilised where such use is likely to result in less environmental impact than other options.</p> <p><u>Fuel and Chemical Storage and Management</u> Refer to assessment criteria for objective.</p> <p><u>Fire Danger Season restrictions and education</u> All personnel are fully informed on the fire danger season and associated restrictions.</p> | <p><i>Compliant</i></p> | <p>GAS audits were taken at approximately 26 locations in dunefield, floodplain and salt lake environments within the area covered by the greater Modiolus 3D survey in PEL 92 and PEL 91.</p> <p>No negative GAS scores were obtained in the PEL 91 part of the survey.</p> |

TABLE 2 (con't): Compliance with "Cooper Basin Operator's Statement of Environmental Objectives: Geophysical Operations - July 2006"

| OBJECTIVE | ASSESSMENT CRITERIA | COMPLIANCE / NON-COMPLIANCE | COMMENTS |
|--|--|-----------------------------|--|
| <p>Objective 4:</p> <p><i>Avoid disturbance to sites of cultural and heritage significance.</i></p> | <p>The following is one possible procedure to achieve the objective.</p> <p>Appropriately trained and experienced cultural/heritage advisors have scouted proposed survey line locations and access tracks.</p> <p>The operator has a mechanism in place to appropriately report and respond to any sites discovered during survey operations.</p> <p>Any sites identified have been flagged and subsequently avoided.</p> <p><u>Note:</u> Where a negotiated agreement or determination for heritage is in place, compliance with the negotiated agreement or determination takes precedence over the above criteria.</p> <p>The EIR details this possible procedure.</p> | <p><i>Compliant</i></p> | <p>Beach has an agreement with the Dieri Aboriginal Corporation (DAC) Native Title Claimant group which specifies the requirements for scouting proposed seismic lines to identify and avoid areas of heritage value and archaeological significance.</p> <p>Joint site visits were carried out with representatives from the Native Title Claimant group. Proposed line locations and access routes were agreed and given heritage clearance.</p> <p>Areas of significance were recorded and marked as exclusion zones.</p> <p>Additional areas of significance identified during the course of the survey were recorded, photographed and marked as exclusion zones.</p> |

TABLE 2 (con't): Compliance with "Cooper Basin Operator's Statement of Environmental Objectives: Geophysical Operations - July 2006"

| OBJECTIVE | ASSESSMENT CRITERIA | COMPLIANCE / NON-COMPLIANCE | COMMENTS |
|---|--|-----------------------------|---|
| <p>Objective 5: <i>Minimise disturbance to livestock, pastoral infrastructure and landholders.</i></p> | <p>The attainment of 0, +1 or +2 GAS criteria for 'Impact on infrastructure' objective listed in Appendix 3.</p> <p>No reasonable concerns raised by stakeholders are left unresolved.</p> <p>The extent to which the relevant sections of the Petroleum Act and Regulations have been followed and implemented and in particular in relation to landowner liaison and notification.</p> | <p><i>Compliant</i></p> | <p>Beach maintained regular contact with the pastoral lessees prior to and while undertaking survey operations.</p> <p>None of the seismic operations interfered with cattle watering points and cattle were not present in significant numbers.</p> <p>Extensive seismic survey operations have been undertaken regularly in recent years on both of the pastoral leases covered by the Modiolus Survey.</p> <p>No issues of concern have been raised by the landowners in relation to these activities.</p> |
| <p>Objective 6: <i>Avoid the introduction or spread of exotic species and implement control measures as necessary.</i></p> | <p>Weeds or feral animals are not introduced into, or spread, in operational areas</p> | <p><i>Compliant</i></p> | <p>Machinery and vehicles used for line preparation and survey recording were already working in the Cooper Basin prior to commencing the Modiolus survey.</p> |

TABLE 2 (con't): Compliance with "Cooper Basin Operator's Statement of Environmental Objectives: Geophysical Operations - July 2006"

| OBJECTIVE | ASSESSMENT CRITERIA | COMPLIANCE / NON-COMPLIANCE | COMMENTS |
|---|--|-----------------------------|---|
| <p>Objective 7:</p> <p><i>Minimise disturbance to drainage patterns and avoid contamination of surface waters and shallow groundwater resources.</i></p> | <p><u>Campsite and survey line preparation</u> Campsites and survey lines/traverses are located and constructed to avoid diversion of water flows.</p> <p>The attainment of 0, +1 or +2 GAS criteria for 'disturbance to land surface' objective listed in Appendix 3.</p> <p>No uncontrolled flows to surface from aquifers intersected in upholes/shallow boreholes.</p> <p>There is no unnecessary interference with natural drainage features.</p> <p><u>Fuel Storage and Handling</u> No spills occur outside of areas designed to contain them.</p> <p>Refuelling occurs at least 1km from watercourses or sensitive ecological environments (wetlands). Appropriate spill response equipment is available on site.</p> <p>Spills or leaks are immediately reported and clean up actions initiated promptly.</p> | <p><i>Compliant</i></p> | <p>None of the lines of the Modiolus survey crossed channels of the Cooper Creek</p> <p>There was no contamination of surface waters and shallow groundwater resources.</p> |

| TABLE 2 (con't): Compliance with "Cooper Basin Operator's Statement of Environmental Objectives: Geophysical Operations - July 2006" | | | |
|---|--|------------------------------------|---|
| OBJECTIVE | ASSESSMENT CRITERIA | COMPLIANCE / NON-COMPLIANCE | COMMENTS |
| Objective 8: <i>Optimise waste reduction and recovery.</i> | Wastes are segregated, burnt or transported to an Environment Protection Authority (EPA) approved waste disposal facility for recycling or burial in accordance with approved procedures. 0, +1 or +2 GAS criteria are attained for 'Negligible survey markers and rubbish in situ' objective listed in Appendix 3. | <i>Compliant</i> | Every GAS score in relation to "Pollution and litter" (control) at each of the 26 sites within the greater survey area was "+2", indicating no litter was observed on any part of the survey. |

5 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 undertaken during the Licence Year in relation to exploration activities on PEL 91.

6 Report and Data Submissions

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

"a list of all reports and data relevant to the operation of the Act generated by the licensee during the licence year".

A list is provided in **Table 3** of the reports and data generated and samples submitted in relation to the operations undertaken during Tem 2, Year 1 of the Licence PEL 91.

Table 3: List of Report, Data and Sample Submissions to PIRSA - Year 1 of Licence Term 2

| Description of Report / Data | Date Due | Date Submitted | Compliant / Non-Compliant |
|--|---|-----------------------|----------------------------------|
| Ballaparudda-1 Well Completion Report including wireline logs and mudlog | 17-June 2008 | 17-June 2008 | <i>Compliant</i> |
| Murrippi-1 well cuttings samples | 13 September 2008 | 28 July 2008 | <i>Compliant</i> |
| Annual Report for Licence Year 5, Term 1 of PEL 91 | 4 August 2008 | 30 July 2008 | <i>Compliant</i> |
| Murrippi-1 Well Completion Report including wireline logs and mudlog | 13 September 2008 | 11 September 2008 | Compliant |
| Cadulus 2D Seismic Survey Interpretation Report for PEL 91 | 14 October 2008 | 14 October 2008 | Compliant |
| 2x CD containing PSDM for Modiolus 3D Survey | 26 July 2009 (as part of Operations Report) | 18 December 2008 | Compliant |
| 1 x CD Modiolus (and Padollus-PEL 92) Environmental Monitoring Reports | 26 July 2009 (as part of Operations Report) | 16 February 2009 | Compliant |
| Murrippi-1 Well Completion Report (updated version) | | 2 April 2009 | |

7 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 –

- (i) an overall assessment and analysis of the incidents, including the identification and analysis of any trends that have emerged; and*
- (ii) 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".*

There were no reportable incidents arising from the exploration operations undertaken on PEL 91 during Year 1 of Licence Term 2.

8 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 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”.

There are no foreseeable threats to the proposed exploration activities for PEL 91, other than the disruptive influence of occasional flooding of the Cooper Creek.

The progress of any flooding events in the headwaters of the Cooper Creek are closely monitored by satellite surveillance to predict well in advance the time of their arrival in the PEL 91 area. Drilling and seismic schedules are amended accordingly.

9 Future Work Program

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

“unless the relevant licence year is the last year in which the licence is to remain in force – a statement outlining operations proposed for the ensuing year”.

The PEL 91 Licence has been renewed for a further 5 years and the committed work program is specified in **Table 1**.

137 km² of the Modiolus 3D seismic survey were acquired within PEL 91 as part of the greater Modiolus survey being acquired over PEL 91 and PEL 92, during the first quarter of the first year of the Licence's Second Term.

Geophysical studies will be directed at finalising the interpretation and mapping of the Modiolus 3D seismic survey data and undertaking a review of the Cadulus 2D and Spinel 3D seismic data. Geological and Geophysical studies will be directed at further defining prospectivity of the Licence, at prospect generation and evaluation, in preparing well proposals and associated documentation and in monitoring drilling operations.

The approved Work Program for the Second Term does not require a well to be drilled in the Licence until Licence Year 5, but it is the intention of the Joint Venture to drill two prospects, Chiton and Marino, during Q3-Q4 2009. The two prospects were matured for drilling through the acquisition and interpretation of the Modiolus 3D seismic.

10 Statement of Expenditure

Pursuant to Regulation 33(3) under the Act, an annual report must contain:

“An annual report must be accompanied by a statement of expenditure on regulated activities conducted under the licence for the relevant licence year, showing expenditure under each of the following headings:

- a) drilling activities;*
- b) seismic activities;*
- c) technical evaluation and analysis;*
- d) other surveys;*
- e) facility construction and modification;*
- f) operating and administration expenses (not already covered under another heading)”.*

Commercial in Confidence