

*Adelaide Energy Limited*

Annual Report

Licence Year 1

*24 March 2009 – 23 March 2010*

*PEL 496*

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## 1 Introduction

Petroleum Exploration Licence (PEL) 496 was granted on 24 March 2009. The licence is located in the onshore Otway Basin, South Australia and comprises a southern sub-block in addition to a larger sub-block to the north (Figure 1). This report details the work conducted during Licence Year 1 of the licence period 24 March 2009 – 23 March 2014 (inclusive) in accordance with Regulation 33 of the *Petroleum and Geothermal Energy Act 2000*.

Adelaide Energy nominated to record 35 km 2-D seismic in the first year of the licence and the 2010 Weatherall 2D Seismic Survey acquired 35.8 km over a prospective lead in conjunction with program in PEL 494 and PRL 13.

Recording was completed on 8<sup>th</sup> March 2010 and data have been sent to Fugro Seismic Imaging for processing.

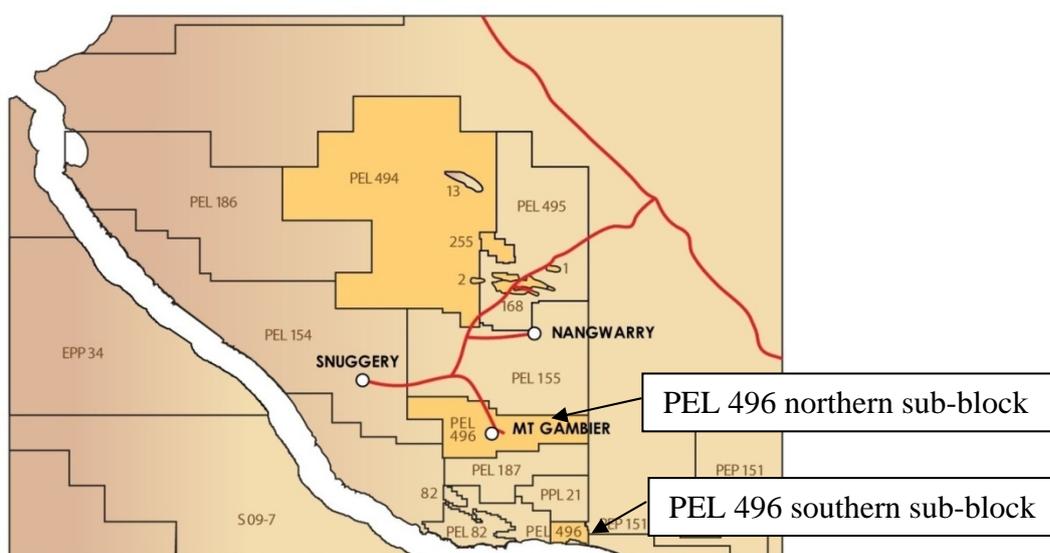


Figure 1. PEL 496 northern and southern sub-blocks

### Permit Summary

For the duration of the licence year, licensees for Petroleum Exploration Licence PEL 496 were:

- Adelaide Energy Limited                      100%

The current work commitments (including all variations) associated with PEL 496 can be seen in Table 1.

**Table 1            Current work commitments by licence year**

Licence Year	Licence dates	Minimum Work Program
Year 1	24 March 2009 – 23 March 2010	35 km 2-D seismic Geological and Geophysical studies
Year 2	24 March 2010 – 23 March 2011	1 Well Geological and Geophysical studies
Year 3	24 March 2011 – 23 March	1 Well

	2012	<i>Geological and Geophysical studies</i>
Year 4	24 March 2012 – 23 March 2013	<i>Geological and Geophysical studies</i>
Year 5	24 March 2013 – 23 March 2014	<i>Geological and Geophysical studies</i>

Licence Year 1 concluded on 23 March 2010. The following table displays the minimum work program (after all variations) and the actual work completed up until the end of the current licence period. ADE complied with the terms of licence.

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

<b>Licence Year</b>	<b>Minimum Work Program</b>	<b>Actual Work</b>
Year 1	35 km 2-D seismic <i>Geological and Geophysical studies</i>	35.8 km 2-D seismic <i>Geological and Geophysical studies</i>

### **Regulated Activities**

Pursuant to Regulation 33(2)(a) under the Act, the following regulated activities were conducted by Adelaide Energy Limited in PEL 496.

#### ***Drilling and Related Activities***

No well activities were conducted during the permit year.

#### ***Seismic Data Acquisition***

A total of 35.8 km of 2D seismic data were recorded during the term of Year 1. The 2010 Weatherall 2D seismic survey was recorded by Terrex Seismic during Permit Year 1 between 3 March and 8 March 2010. A final Operations report is in preparation and will be submitted to PIRSA during Year 2.

#### ***Seismic Data Processing and Reprocessing***

No seismic reprocessing was conducted during the reporting period.

#### ***Geochemical, Gravity, Magnetic and other surveys***

No additional surveys were recorded in PEL 496.

#### ***Production and Processing***

No production and processing activities occurred during Permit Year 1 in PEL 496.

#### ***Pipeline Construction and Operation***

No pipeline or construction activities occurred during Permit Year 1 in PEL 496.

#### ***Preliminary Survey Activities***

Survey activities conducted during the reporting period in relation to the seismic survey included environmental and cultural heritage studies in addition to planning of the line layout.

## **2 Compliance Issues**

### ***Licence and Regulatory Compliance***

Adelaide Energy Limited complied with Regulations 33(2) (b) & (c) in relation to its licence and Statement of Environmental Objectives for seismic activities in PEL 496.

### ***Licence Non-Compliance***

**Table 2 List of licence non-compliances for current reporting year**

<b>No.</b>	<b>Stated Commitment</b>	<b>Reason for Non-Compliance</b>	<b>Rectification of Non-Compliance</b>
	Adelaide Energy Limited complied with all conditions of licence.	ADE complied with the terms of the licence.	

### ***Regulatory Non-Compliance***

**Table 3 List of regulatory non-compliances for current reporting year**

<b>No.</b>	<b>Date</b>	<b>Activity</b>	<b>Details of Non-Compliance</b>	<b>Rectification of Non-Compliance</b>
			No instances of non-compliance.	

Compliance with Statement of Environmental Objectives

Adelaide Energy Limited complied with the terms and intent of the Statement of Environmental Objectives for Geophysical Operations in the Otway Basin, South Australia. Table 4 records the compliance with the SEO. ADE complied with the GAS scores and an environmental report will be submitted to PIRSA when completed.

Table 4. Adelaide Energy compliance with the *SEO for Geophysical Operations in the Otway Basin, South Australia*.

<b>Objective</b>	<b>Assessment Criteria</b>	<b>Compliant/Non-Compliant</b> (inc. Compliance statement)	<b>Comments</b>
<p><b>Objective 1</b> Minimise the clearing and/or other impacts on native vegetation and associated wildlife habitats</p>	<p>The route of least impact (vegetation and habitat clearance) is followed and records of vegetation clearance and habitat disturbance are kept and are available for audit upon request. Slashing methods are used to facilitate regrowth and rehabilitation. The attainment of a 0, +1 or +2 GAS score for 'Impact on native vegetation – communities' and 'Impact on native vegetation – species' as listed in Appendix 4. No blading by earthmoving equipment. The major potential source of weed introduction is from vehicles and equipment brought in from other regions of the state or interstate for the various well activities. Vehicles cleaned or mobilised from safe regions</p>	Compliant	<ul style="list-style-type: none"> <li>• This region has already been cleared and is heavily worked agricultural land.</li> <li>• No native vegetation affected.</li> </ul>
<p><b>Objective 2</b> Avoid long-term damage or irreparable impacts to areas of high biodiversity or conservation value, including areas with rare, endangered or vulnerable species.</p>	<p>The lines have been cleared of any native vegetation and, in general, are continually exposed to cropping, burning, fertilizing, spraying and grazing. All activities planned in order to avoid sensitive areas The major potential source of weed introduction is from vehicles and equipment brought in from other regions of the state or interstate for the various well activities. Vehicles cleaned or mobilised from safe regions</p>	Compliant	<ul style="list-style-type: none"> <li>• This region has already been cleared</li> <li>• Region comprises heavily worked agricultural land.</li> <li>• No impact to sensitive areas</li> </ul>

<p><b>Objective 3</b> Minimise disturbance to soil.</p>	<p>Areas sensitive to soil disturbance, such as wetlands or areas of steep gradients, should be avoided where possible or appropriate steps taken to ameliorate any impacts. There should be no observable difference in erosion patterns on-line compare to offline. Any soil contamination should be reported and treated immediately with preferred (industry standard) methods. Activities should be carried out in dry weather to minimise impacts such as bogging, rutting and a loss in soil cohesiveness. Up-holes backfilled as covered with top soil to minimise visibility.</p>	<p>Compliant</p>	<ul style="list-style-type: none"> <li>• Survey on level ground</li> <li>• Survey conducted in dry summer period.</li> <li>• No impact to watercourses</li> <li>• Up-holes rehabilitated</li> </ul>
<p><b>Objective 4</b> Minimise the disturbance to surface drainage patterns.</p>	<p>The attainment of a 0, +1 or +2 GAS score for 'Disturbance to land surface' as listed in Appendix 4. As no earthmoving equipment should be used in the Otway Basin for line or campsite preparation, minimal disturbance to surface drainage patterns should occur. Any creeks encountered should have minimal vegetation clearance when undergoing line preparation to minimise potential impacts such as bed and bank erosion and silting.</p>	<p>Compliant</p>	<ul style="list-style-type: none"> <li>• No disturbance to surface drainage patterns during dry summer period</li> <li>• No earthworks</li> </ul>
<p><b>Objective 5</b> Avoid the contamination of surface and ground waters.</p>	<p>All equipment is cleaned as deemed appropriate to prevent contamination of groundwater Spills are reported on pursuant to regulatory requirements and remediation promptly initiated with appropriate and readily available equipment and procedures.</p>	<p>Compliant</p>	<ul style="list-style-type: none"> <li>• No aquifer contamination as a result of drilling up-holes</li> <li>• Local drilling contractor with knowledge of the region used for up-holes</li> <li>• Up-holes drilled to minimum depth of weathering</li> <li>• Dynamite shot-holes were drilled to the minimum necessary depth and shot charges were kept to minimum size</li> <li>• No spills or litter</li> </ul>
<p><b>Objective 6</b> Avoid the breaching of and leaking from shallow aquifers</p>	<p>No aquifers breached during up-hole/shot-hole drilling If up-holes breach aquifers the holes are backfilled and/or cemented off. The up-hole should not leak and no subsidence should occur.</p>	<p>Compliant</p>	<ul style="list-style-type: none"> <li>• No aquifer flow to surface or contamination as a result of drilling up-holes and shot-holes</li> <li>• Local drilling contractor with knowledge of the region used for up-holes</li> <li>• Up-holes drilled to minimum depth of weathering</li> <li>• No contamination of surface waters and shallow groundwater resources due to seismic operations.</li> </ul>

<p><b>Objective 7</b> Minimise the risk of introduction and/or spread of introduced species and biosecurity threats.</p>	<p>Weeds, feral animals or plant and animal diseases are not introduced to, or spread within, the Otway Basin region. Details or logs of equipment cleaning are kept and are available for audit upon request. Records of detection (whether introduced by a geophysical operator or not), monitoring, eradication or control of introduced species are kept and are available for audit upon request. Areas of known disease infestation (such as phytophthora, phylloxera, Mundulla Yellows) are identified with landowners and relevant boards or control officers and be avoided.</p>	<p>Compliant</p>	<ul style="list-style-type: none"> <li>• No seismic activity conducted through vineyards</li> <li>• Vehicles washed down following movement from regions in PEL 496 affected by Johnes disease</li> <li>• Vehicle provenance determined prior to survey and risks assessed</li> </ul>
<p><b>Objective 8</b> Minimise the visual impacts of geophysical operations and any future third party use.</p>	<p>The attainment of a 0, +1 or +2 GAS score for 'Visual impact' as listed in Appendix 4. No wildfires caused by seismic or rehabilitation activities Vegetation, terrain variations or appropriate preparation techniques have been used to minimise line visibility.</p>	<p>Compliant</p>	<ul style="list-style-type: none"> <li>• Survey on flat-lying to gently undulating land</li> <li>• Up-holes back filled and covered with topsoil to match surrounding soil colour</li> <li>• No complaints from the local community or other land users.</li> <li>• No spills.</li> <li>• Winter rain will germinate indigenous seed stock.</li> </ul>
<p><b>Objective 9</b> Avoid areas with cultural significance or heritage value.</p>	<p>Appropriately qualified and experienced personnel have scouted proposed survey area and access tracks. Any aboriginal cultural locations found are identified, recorded and reported accordingly to AARD. These sites are flagged off and detoured around</p>	<p>Compliant</p>	<ul style="list-style-type: none"> <li>• No sites of cultural significance encountered</li> <li>• No sites of heritage significance affected</li> </ul>
<p><b>Objective 10</b> Minimise the disturbance to other land users.</p>	<p>The attainment of a 0, +1 or +2 GAS score for 'Impact on infrastructure' and 'Impact on agricultural, horticultural or viticultural activities' as listed in Appendix 4. All reasonable landowner complaints are addressed and resolved. All fences are restored to a level satisfactory to the landowner.</p>	<p>Compliant</p>	<ul style="list-style-type: none"> <li>• No soil or groundwater contamination as a result of seismic operations</li> <li>• All waste was removed.</li> <li>• No impact on landowner as a result of activity.</li> <li>• No uncontained domestic waste on site.</li> <li>• Fencing modified for access but returned to original state</li> <li>• No complaints from landowners</li> </ul>
<p><b>Objective 11</b> Minimise the loss of resources and optimise waste recovery.</p>	<p>Litter has been removed to authorised disposal sites within the Otway Basin. Use of recyclable materials is preferred. All fences are restored to a level satisfactory to the landowner.</p>	<p>Compliant</p>	<ul style="list-style-type: none"> <li>• All impacts to properties restored to satisfaction of landowners.</li> <li>• No stock losses</li> <li>• No fires</li> <li>• No uncontrolled flow of water from shallow aquifers</li> </ul>

<p><b>Objective 12</b> Minimise the risk of initiation and/or propagation of wildfire.</p>	<p>Appropriate plans in place and equipment available to identify hazards, initiate hazard mitigation and response training, fire-fighting equipment available and maintained Strict adherence to fire bans. A response plan is in place for the safety of crew personnel should a fire approach, or be initiated by, the seismic crew. Welding and grinding (regarded as high-risk activities) are deferred or curtailed until weather conditions are suitable. The risks of fire to crews and transport drivers are clearly defined, and a plan is in place to minimise or eliminate slasher use on defined high-risk days.</p>	<p>Compliant</p>	<ul style="list-style-type: none"> <li>• No fires reported</li> <li>• Weather conditions monitored with alternative plans should work in one area be deemed high risk</li> </ul>
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### ***Management System Audits***

Adelaide Energy Limited complied with Regulation 33(2) (d) under the Act by conducting internal reviews of all operations and procedures. No significant issues were raised.

A post-operations review determined that no reportable incidents occurred during implementation of the 2010 Weatherall Seismic Survey.

**Report and Data Submissions**

Pursuant to Regulation 33(2) (e) under the Act, Adelaide Energy submitted the following reports

**Table 5 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 submitted – an Operations report is in preparation	16 March 2011		

**Incidents**

No Lost Time Injuries occurred during field and office work conducted by Adelaide Energy Limited.

There were no reportable environmental incidents during the 2010 Wakefield Seismic Survey.

Pursuant to Regulation 33(2) (f) Adelaide Energy Limited includes the following data.

**Table 6 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***

Pursuant to Regulation 33(2) (g) under the Act, Adelaide Energy Limited reports that no reasonably foreseeable threats or hazards are recognised.

### ***Future Work Program***

Pursuant to Regulation 33(2) (h) under the Act, Adelaide Energy Limited plans the following activities in Permit Year 2 (24 March 2010 – 23 March 2011).

- ADE will drill the Summerhill-1 exploration well based on the 2D seismic interpretation.

### ***3 Expenditure Statement***

Pursuant to Regulation 33(3) under the Act, Adelaide Energy Limited lists the expenditure in Permit Year 1 in Appendix I.

### ***4 Additional Information for Production Licence Reports***

ADE did not produce hydrocarbons in PEL 496.

### ***5 Additional Information for Pipeline Licence Reports***

Adelaide Energy Limited did not operate any pipelines in PEL496 during the period embraced by this Permit Year 1 report.