



**PEL 117, 121 & 122**

**Arckaringa Basin**

**South Australia**

**Year 5**

**Combined Annual Report**

**For the Period**

**3 October 2010 to 2 October 2011**

## Table of Contents

<b>1. INTRODUCTION .....</b>	<b>3</b>
<b>2. LICENCE SUMMARY .....</b>	<b>3</b>
<b>3. REGULATED ACTIVITIES.....</b>	<b>6</b>
REGULATION 33 (2) (A): .....	6
<i>Regulated activities conducted</i> .....	6
<b>4. COMPLIANCE ISSUES.....</b>	<b>8</b>
REGULATION 33 (2) (B) (C):.....	8
<i>Licence Compliance</i> .....	8
<i>Licence Non-Compliance</i> .....	8
<i>Regulatory Compliance</i> .....	9
<i>Regulatory Non-Compliance</i> .....	9
REGULATION 33 (2) (D): .....	20
<i>Management System Audits</i> .....	20
REGULATION 33 (2) (E):.....	20
<i>Reports generated during the Licence year</i> .....	20
REGULATION 33 (2) (F):.....	23
<i>Incidents reported to the Minister under the Act</i> .....	23
REGULATION 33 (2) (G): .....	26
<i>Foreseeable threats that present a hazard to facilities or activities</i> .....	26
REGULATION 33 (2) (H): .....	26
<i>Operations proposed for 1 Year of Term 2</i> .....	26
<b>5. EXPENDITURE STATEMENT .....</b>	<b>27</b>
REGULATION 33 (3): .....	27
<i>Commercial In Confidence</i> .....	28

## 1. Introduction

Petroleum Exploration Licences (PEL's) 117, 121 & 122 'Arckaringa Basin', cover an area of 27,781km<sup>2</sup> and lie within the Arckaringa Basin, surrounding Coober Pedy, South Australia. This report describes activities conducted during Licence Year 5 (3 October 2010 – 2 October 2011 inclusive), in accordance with Regulation 33 of the Petroleum and Geothermal Act 2000.

## 2. Licence Summary

PEL's 117, 121 & 122 were awarded to SAPEX which currently maintains a 100% interest in all licenses.

In late October 2008 SAPEX Limited merged with Linc Energy Ltd. Following the merger and changes to company structure, ongoing review of target areas in the Arckaringa Basin continues to be a priority.

The original work commitments associated with the awarding of PEL's 117, 121 & 122 are outlined in Table 1.

**Table 1: Original Work Commitments by Licence year**

### PEL 117 Original work commitments

Year of Licence	Minimum Work Requirements
One	Geological and Geophysical Studies
Two	Drill one well and Seismic Acquisition
Three	Drill one well
Four	Geological and Geophysical Studies and Seismic Acquisition
Five	Geological and Geophysical Studies

### PEL 121 Original work commitments

Year of Licence	Minimum Work Requirements
One	Geological and Geophysical Studies
Two	Drill one well and Seismic Acquisition
Three	Drill one well
Four	Geological and Geophysical Studies and Seismic Acquisition
Five	Geological and Geophysical Studies

### PEL 122 Original work commitments

Year of Licence	Minimum Work Requirements
One	Geological and Geophysical Studies
Two	Drill one well and Seismic Acquisition
Three	Drill one well
Four	Geological and Geophysical Studies and Seismic Acquisition
Five	Geological and Geophysical Studies

- On 12 June 2008, SAPEX signed a merger agreement with Linc Energy under which Linc Energy proposed to acquire all of SAPEX's shares, effected by schemes of arrangement which were implemented on 15 October 2008.
- As a result of the merger some of the work commitments for Year 2 were deferred to Year 3. An application for a variation to the work programs dated 19 December 2008 was submitted to PIRSA and approved.
- Activity approval for a drilling program within the Arckaringa Basin was given on 28 August 2009.
- During the notification and approval process of on ground preparations for the nine (9) hole drilling program in the Arckaringa Basin, factors arose causing schedule and planning delays and attributed to the work program extending beyond the commitment of Year 3.
- In August 2009, Linc commenced a 14 well exploration program, covering all PEL's holdings within both the Walloway Basin and Arckaringa Basin.
  - The program in the Arckaringa Basin followed on from a five (5) well drilling program within PEL 120, Walloway Basin.
  - Due to the delays in the notification and approval process the Arckaringa Basin drilling program was not completed before 2 October 2009, therefore resulting in the program encroaching into the first quarter of Year 4.
  - PIRSA approved a suspension on the 12 Oct 2009 of the Year 3 work commitments for PELs 117, 118, 119, 121, 122 & 123 for a period of 12 months and requisite that both Year 3 and Year 4 commitments of each licence be undertaken by 2 October 2010, with the expiry of all the licenses unchanged at 2 October 2011.
- In October 2009, Linc Energy commenced a seven (7) well drilling program in the Arckaringa Basin.
  - Three (3) wells were drilled on PEL 117 and two (2) wells completed on PEL 121.
- Work program commitments on PEL 122 were to complete two (2) wells.
 

Subsequently both wells were delayed due to a number of factors;

  - Scheduled well "Wirrangulla Hill 1" was delayed due to hot temperatures December 2009 and a second well based on the results of Wirrangulla Hill 1 was postponed.
  - Initiating a variation of work program to move one (1) well into Year 5, this approved by PIRSA on 12 April 2010.

- Preparations to undertake drilling in August 2010 on PEL 122 met with unseasonal flooding and rains and the delay of a drilling contractor which consequently enforced another Variation of work program to move the well into Year 5 approved by PIRSA on 7 September 2010.
- Therefore a commitment to drill two (2) wells in Year 5, by expiry 2 October 2011.
- During Year 5, Linc Energy conducted a 2D Regional Seismic Survey covering several PELs including PEL 117, 121 & 122. The survey began February and concluded August 2011, a total of 1153.37 km was surveyed.
- In June 2011, Linc Energy commenced a six (6) well drilling program in the Arckaringa Basin, which included;
  - Two (2) wells drilled on PEL 121 and Three (3) wells completed on PEL 122.
- Technical re-processing and quality control of archive seismic data covering PELs 117 & 121 began in June and was finalised December 2010.
- July 2011, SAPEX made application and was approved by PIRSA for a 6 month suspension of the work program commitments and extension of the licence term for PELs 117, 121 and 122 from 2 October 2011 under section 76A of the Act. The request aimed at ensuring results from the seismic and drilling programs are received, to provide a clear indication of prospective areas and contribute to the assessment of each PEL for renewal and the required relinquishment of each license.

The following table displays PELs 117, 121 and 122, the minimum work program and the actual work completed during Year 5, to 2 October 2011.

**Table 2: Minimum work program and actual work completed - Year 5**

PEL	Minimum Work Program - Year 5	Actual Work Carried Out
PEL 117	<ul style="list-style-type: none"> <li>• Geology &amp; Geophysical Studies</li> </ul>	<ul style="list-style-type: none"> <li>• 2D Seismic Survey</li> <li>• Geology &amp; Geophysical Studies</li> </ul>
PEL 121	<ul style="list-style-type: none"> <li>• Geology &amp; Geophysical Studies</li> </ul>	<ul style="list-style-type: none"> <li>• 2D Seismic Survey</li> <li>• Two(2)Wells</li> <li>• Geology &amp; Geophysical Studies</li> </ul>
PEL 122	<ul style="list-style-type: none"> <li>• Drill Two(2)Wells</li> <li>• Geology &amp; Geophysical Studies</li> </ul>	<ul style="list-style-type: none"> <li>• 2D Seismic Survey</li> <li>• Three (3) Wells</li> <li>• Geology &amp; Geophysical Studies</li> </ul>

### 3. Regulated Activities

#### Regulation 33 (2) (a):

##### *Regulated activities conducted*

- Environmental Impact Reports (EIR) and Statement of Environmental Objectives (SEO) for Exploration Drilling Activities and Geophysical Operations (gazetted on the 8<sup>th</sup> November 2007) remain current documents for on ground activities.
- Notice of Entry' letters were sent to landholders for the 2D seismic survey and Well program. Linc Energy utilised "consultation manger" a secure database designed to record all correspondence and contact with landowners post and during ground activities.
- Activity notification and approvals for high level official supervision were submitted for proposed commencement of the drilling of wells and 2D seismic survey on PEL 117, 121 and 122, Arckaringa Basin.
- From the commencement of the 2D seismic survey and drilling activities (5 wells), submissions of weekly progress reports and daily drilling reports were submitted to PRISA as per regulatory requirements.
- During the technical re-processing and quality control of archive seismic data covering PELs 117 & 121 geophysical progress reports were provided to PIRSA by the consultant engaged for the project. A final technical, quality control report and an interpretation report was submitted to PIRSA, March 2011.

**Table 3: Arckaringa Exploration Program 2010-11**

PEL	Well	Longitude	Latitude	GL	Spud Date	Rig Release Date	Depth
121	Haystack 1	1353418.98	281328.85	73.79	6/6/2011	25/7/2011	1056
122	Arck 1	1352910.36	283012.48	98.13	2/08/2011	17/08/2011	996
122	Wirrangulla Hill 1	1352837.86	282250.44	91.34	19/08/2011	6/09/2011	828
121	Cootanoorina 2	1352024.38	275936.56	101.11	27/08/2011	23/09/2011	1420
122	Wirrangulla Hill 1A	1352837.75	282250.74	91.34	8/09/2011	20/09/2011	984.2

**Table 3: Arckaringa Exploration Program 2010-11 con't**

<b>PEL 117 2D Seismic Details</b>					
<b>Line</b>	<b>FSN</b>	<b>LSN</b>	<b>STNs</b>	<b>VPS</b>	<b>KMs</b>
LNC11-1	1019	1600	581	582	17.43
LNC11-2	992	3527	2535	2436	76.05
LNC11-3	2550	1046	1504	1505	45.12
LNC11-4	2064	1000	1064	1065	31.92
LNC11-5	971	2780	1809	1810	54.27
LNC11-6	1001	1890	889	890	26.67
LNC11-7	3600	1147	2453	2454	73.59
LNC11-8	1001	1786	785	786	23.55
LNC11-8	1703	2539	836	837	25.08
LNC11-8	2985	2456	529	530	15.87
LNC11-8EX	943	1668	725	588	14.50
LNC11-9	963	6445	5482	5482	164.46
LNC11-28	2160	993	1167	1168	35.01
				<b>Total</b>	<b>603.52</b>

Note Lines; LNC11-8 & 9 cross over PELs 117 & 121

<b>PEL 121 2D Seismic Details</b>					
<b>Line</b>	<b>FSN</b>	<b>LSN</b>	<b>STNs</b>	<b>VPS</b>	<b>KMs</b>
LNC11-8	1001	1786	785	786	23.55
LNC11-8	1703	2539	836	837	25.08
LNC11-8	2985	2456	529	530	15.87
LNC11-8EX	943	1668	725	588	14.50
LNC11-9	963	6445	5482	5482	164.46
LNC11-10	3013	1001	2012	2013	40.24
LNC11-11	1001	1571	570	571	17.10
LNC11-16	1678	1001	677	678	13.54
LNC11-17	1684	1001	683	684	13.66
LNC11-18	1665	1001	664	665	13.28
LNC11-19	1001	1628	627	628	12.54
LNC11-20	1624	1001	623	624	12.46
LNC11-21	1001	1545	544	545	10.88
LNC11-22	2153	1001	1152	1153	23.04
LNC11-23	1001	2139	1138	1139	22.76
LNC11-24	1795	1001	794	795	15.88
LNC11-25	1001	1673	672	673	13.44
LNC11-26	2246	1001	1245	1246	24.90
LNC11-27	1001	2215	1214	1215	24.28
				<b>Total</b>	<b>501.46</b>

Note Lines; LNC11-8 & 9 cross over PELs 117 & 121

PEL 122 2D Seismic Details					
Line	FSN	LSN	STNs	VPS	KMs
LNC11-9	963	6445	5482	5482	164.46
LNC11-12	2432	1001	1431	1332	42.93
LNC11-13	1530	1001	529	530	15.87
LNC11-14	1702	1001	701	702	21.03
LNC11-15	1001	1555	554	555	16.62
LNC11-29	1001	1479	478	479	14.34
LNC11-32	1971	1001	970	971	19.40
LNC11-33	1001	2002	1001	1002	20.02
LNC11-34	1792	1001	791	792	15.82
				<b>Total</b>	<b>330.49</b>

Note Lines; LNC11- 9, 12, 13 & 14 cross over PELs 121, 122 & 123

## 4. Compliance Issues

### **Regulation 33 (2) (b) (c):**

***Compliance with the Act, Regulations, Licence conditions and relevant statement of environmental objectives, Actions to rectify non compliance***

#### ***Licence Compliance***

- Work commitment for Year 5 on PEL 122 was to drill two wells in accordance with condition 1, this was achieved.
- Geological and Geophysical studies have been undertaken throughout the term; with the planning and completion of a regional 2D seismic survey across PELs 117, 121 & 122 of which capitalized on the 2008 seismic acquisition program which then exceeded the seismic work program commitment of Years 2 and 4.
- As part of Linc Energy's environmental management system, site procedures were established in order to achieve the requirements of the Statement of Environmental Objectives (SEO) for both;
  - Exploration Drilling Activities and Geophysical Operations.
  - These procedures were followed throughout the drilling and seismic program and regularly checked by the project geologist and company representative. No issues of non-compliance were identified.

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

- Non-compliance with SEO
  - Haystack 1 Well
    - small part of lease construction outside cleared area,
    - Uncontrolled flow of water to surface,
    - Uncontrolled flow of water outside lease area.
  - Wirrangulla Hill 1A Well
    - Uncontrolled flow of water to surface,

-  
Contributing factors will be reviewed for ongoing / future drilling, actions and measures put in place to minimise the likelihood of the recurrence of the non-compliance.

### ***Regulatory Compliance***

- Completion of 2 wells on PEL 122 as listed in Table 3.
- Activity notification for high level official supervision activity was submitted for the drilling of wells and to conduct a 2D seismic survey on PEL 117, 121 and 122, Arckaringa Basin.
- From the commencement of the 2D seismic survey and drilling of the 5 wells, submissions of weekly progress reports and daily drilling reports were submitted to PRISA as per regulatory requirements.
- Submission of analysis results from core and cutting samples taken from PIRSA Core Library were submitted as per regulatory requirements.
- A report on an emergency response drill conducted during the 2D seismic survey was submitted as per regulatory requirements.
- Reporting of incidents in accordance with the SEO was undertaken as per regulatory requirements.

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

There is no Regulatory Non-Compliance for the current reporting year

**Table 4: Compliance with Petroleum and Geothermal Energy Regulations**

Well	Title	Regulation	Due Date	Completed Date	Compliant
PEL 121 - Haystack 1	Daily Drilling and other Drilling reports	Reg 38	6/06/2011 - 21/07/2011	Daily during drilling operations	Yes
PEL 121 - Cootanoorina 2	Daily Drilling and other Drilling reports	Reg 38	18/08/2011 - 23/09/2011	Daily during drilling operations	Yes
PEL 122 - Arck 1	Daily Drilling and other Drilling reports	Reg 38	2/08/2011 - 17/08/2011	Daily during drilling operations	Yes
PEL 122 - Wirrangulla Hill 1	Daily Drilling and other Drilling reports	Reg 38	17/08/2011 - 6/09/2011	Daily during drilling operations	Yes
PEL 122 - Wirrangulla Hill 1A	Daily Drilling and other Drilling reports	Reg 38	7/09/2011 - 20/09/2011	Daily during drilling operations	Yes

2D Seismic Survey	Title	Regulation	Due Date	Completed Date	Compliant
PEL 117, 121, 122	Weekly Progress Report	Reg 34	2/02/2011 – 15/08/2011	15/08/2011	Yes

Seismic Re-processing	Title	Regulation	Due Date	Completed Date	Compliant
PEL 117, 121, 122	Weekly Progress Report	Reg 34	17/08/2010 – 1/11/2010	1/11/2010	Yes
PEL 117, 121, 122	Operations Report	Reg 35	22/12/2010	29/03/2011	Yes
PEL 117, 121, 122	Interpretation Report	Reg 36	22/12/2010	29/03/2011	Yes

General Reporting	Regulation	Due Date	Completed Date	Compliant
Quarterly Cased Hole Activity Report 3 Jul - Sep 10	Reg 41	30/10/2010	1/11/2010	Yes
Year 4 - Annual Report Combined PEL 117 , 121 & 122	Reg 33	2/12/2010	Approved extension 14/12/2010	Yes
Report on Analysis of Core or Cuttings	Reg 49	7/01/2011	22/12/2010	Yes
Report on Analysis of Core or Cuttings	Reg 49	22/01/2011	Approved extension 1/02/2011	Yes
Quarterly Cased Hole Activity Report Oct - Dec 10	Reg 41	31/01/2011	27/01/2011	Yes
Quarterly Cased Hole Activity Report Jan - Mar 11	Reg 41	30/04/2011	24/04/2010	Yes
Reportable Incident – Haystack 1	Reg 32(1) & 32(5)	31/07/2011	31/05/2010	Yes
Quarterly Cased Hole Activity Report Apr - Jun 11	Reg 41	31/07/2010	25/07/2010	Yes
Serious Incident (1) – Haystack 1	Reg 32(2)(a)(ii) & 32(2)(b)	6/06/2011 & 6/09/2011	7/06/2011 & 1/09/2011	Yes
Serious Incident – Wirrangulla Hill 1A	Reg 32(2)(a)(ii) & 32(2)(b))	14/09/2011 & 12/12/2011	14/09/2011 & Due 12/12/2011	Yes
Serious Incident (2) – Haystack 1	Reg 32(2)(a)(ii) & 32(2)(b)	18/06/2011 & 17/09/2011	20/06/2011 & 13/09/2011	Yes

**Table 5: Compliance with Statement of Environmental Objectives – Exploration Drilling Activities**

The drilling activities undertaken during this reporting period and all field assessments undertaken for the notification and activities approval process were carried out in accordance to the objectives of the Statement of Environmental Objectives (SEO) for Exploration Drilling Activities, as detailed in Table 5 below.

<i>Objective</i>	<i>Assessment Criteria</i>	<i>Compliant/Non-Compliant</i>	<i>Comments</i>
1. Avoid disturbance to sites of cultural and heritage significance	No impact to sites of Aboriginal or non – indigenous heritage significance without approval under the Aboriginal Heritage Act 1988 and Heritage Places Act 1993	Compliant / Achieved	Work Area Clearances (WACs) with the relevant native title group have been carried out. Activities were confined to the areas cleared by the WAC’s. A small part of the Haystack Lease was constructed outside cleared area. A WAC was subsequently carried out on this area and no items of cultural significance recorded
2. Minimise disturbance to native vegetation and native fauna	Any sites of rare, vulnerable and endangered flora and fauna have been identified, flagged and subsequently avoided. Significant remnant vegetation has not been cleared without specific consultation with PIRSA, Native Vegetation Council and DEH prior to activity approval. The attainment of either 0, +1 or +2 GAS criteria for ‘Minimise disturbance to native vegetation’ objective for well site construction and for “Re-establish native vegetation on abandoned well sites and access tracks” No fires during drilling activities. Fuel and Chemical Storage and Handling Waste Management	Compliant / Achieved	Assessments indicated that significant (or rare or threatened) flora and fauna are not present or likely to occur at the sites. Vegetation clearance was minimised and the clearance of long-lived/significant species avoided, in accordance with standard procedures. Previously disturbed areas were selected for the drilling sites. Access tracks and drilling sites have been rehabilitated and remediated according to industry standards (e.g. as outlined in the EIR (Section 6) and the SEO). Rehabilitation signoff has been finalised. The storage, use and disposal of hazardous material were in accordance with legislative requirements. Fire risk formed part of the onsite induction and fire fighting equipment appropriate to the site and seasonal conditions was present. Sparse vegetation poses minimal fire risk.
3. Prevent the introduction or spread of exotic species and implement control measures as necessary	Weeds are not introduced into, or spread in, operational areas as a consequence of activities	Compliant / Achieved	Landholders were consulted regarding weed management. Equipment brought to site was free of soil or weed material. Any equipment that had been operating outside the Arckaringa Basin or in an area of weed infestation was thoroughly inspected and washed down before going to site. Good housekeeping practices were followed to discourage pest animal species.

<p>4. Minimise disturbance and contamination to soil resources</p>	<p>The attainment of 0, +1 or +2 GAS criteria for 'Minimise impacts to soil' No construction activities are carried out on salt lakes, steep slopes or in areas of boggy coastal soils.</p> <p>No soil contamination as a result of drilling activities.</p> <p>Fuel and Chemical Storage and Handling – Soil in areas affected by any spill is removed and/or bio-remediated.</p> <p>No soil contamination as a result of fuel and chemical storage and handling.</p> <p>Waste Management</p>	<p>Non-compliant</p>	<p>The area utilised for drilling was restricted to the smallest practicable.</p> <p>Unnecessary/unauthorised off-road driving or creation shortcuts were avoided.</p> <p>No sensitive land systems (salt lakes, steep slopes or boggy coastal areas) were present.</p> <p>Topsoil from the sump was stockpiled separately and respread on reinstatement.</p> <p>Areas of compaction ripped where appropriate in accordance with industry standards (e.g. EIR (Section 6) and SEO). Rehabilitation signoff and GAS assessment still to be finalised.</p> <p>Drilling muds were water-based and low- or non-toxic. Ground water and associated drilling mud/fluids contained within designated sumps.</p> <p>Bunding and/or polythene lining for fuel and chemical storage, refuelling etc were adequate to contain spills and meet legislative requirements (e.g. EPA guidelines). Drip trays used for refuelling and underneath any parts of the rig that may pose a potential leak or spill hazard. Appropriate spill response equipment was maintained on site.</p> <p>Linc and/or contractor procedures covered spill response. Material Safety Data Sheet (MSDS) information was readily available on site.</p> <p>Incident involving water flow while drilling surface hole on Haystack 1 – filled 2<sup>nd</sup> sump and water flowed onto adjacent salt flat. No adverse environmental impacts.</p> <p>Incident on Wirrangulla Hill !a with uncontrolled flow of water – all water contained and no surface environmental damage.</p>
<p>5. Minimise loss of reservoir and aquifer pressures and avoid aquifer contamination</p>	<p>No aquifer contamination as a result of drilling, completion or production testing activities.</p> <p>No uncontrolled flow to surface (i.e. blow out). Sufficient barriers exist in casing annulus to prevent crossflow between separate aquifers or hydrocarbon reservoirs.</p> <p>Activities No crossflow behind casing between aquifers, and between aquifers and hydrocarbon reservoirs unless approved by the Department of Water, Land and Biodiversity Conservation.</p>	<p>Non-compliant</p>	<p>Hole casing, cementing and abandonment in accordance with SEO requirements.</p> <p>A properly balanced mud system was utilised and monitored..</p> <p>On completion of drilling the following occurred:</p> <ul style="list-style-type: none"> <li>• CBL logs run</li> <li>• cement back to surface.</li> <li>• cap well head 0.5m below ground.</li> </ul> <p>Incident involving water flow while drilling surface hole on Haystack 1 – filled 2<sup>nd</sup> sump and water flowed onto adjacent salt flat. No adverse environmental impacts.</p> <p>Incident involving water flow from behind casing – contained to cellar.</p> <p>Incident on Wirrangulla Hill !a with uncontrolled flow of water – all water contained and no aquifer damage.</p>

<p>6. Minimise disturbance to drainage patterns and avoid contamination of surface waters and shallow groundwater resources</p>	<p>Well sites and access tracks are located to maintain pre-existing water flows (i.e. channel contours are maintained on floodplains and at creek crossings). The attainment of 0, +1 or +2 GAS criteria for 'Minimise disturbance to drainage patterns'</p> <p>No contamination of surface waters and shallow groundwater resources as a result of drilling activities.</p> <p>No contamination of surface waters and shallow groundwater resources as a result of fuel or chemical storage and handling.</p> <p>Waste Management</p>	<p>Compliant / Achieved</p>	<p>Drainage at sites mostly local; interception of flows by drill sites will be minor to negligible.</p> <p>Sumps assessed to ensure adequately sized to prevent future overflow.</p> <p>Site rehabilitation works are underway and in accordance with the SEO and EIR (Section 6).</p> <p>Surface water flow directed away from sump. Release of groundwater and drill mud beyond the designated drilling area avoided. Sumps backfilled with at least 0.5m cover.</p> <p>Bunding and/or polythene lining for fuel and chemical storage, refuelling etc adequate to contain spills and meet legislative requirements (e.g. EPA guidelines).</p> <p>Drill rig generators and fuel tanks appropriately banded (e.g. located in polythene lined banded areas) to contain any oil spills.</p> <p>Fuel tanks and delivery systems regularly inspected by Linc Drilling Supervisor and rejected if found unsuitable.</p> <p>The storage, use and disposal of hazardous material was undertaken in accordance with legislative requirements. Material Safety Data Sheet (MSDS) information will be readily available on site.</p>

<p>7. Minimise risks to the safety of the public, employees and other third parties</p>	<p>No injuries to the public or third parties as a result of drilling, completion and initial production testing activities</p>	<p>Compliant / Achieved</p>	<p>Health and Safety plans, Drilling Program, Emergency Response Plan developed and implemented by Linc and its contractors in accordance with legislative requirements, SEO and industry standards (e.g. as outlined in the EIR (Section 6)).</p> <p>All employees undertook a safety induction prior to commencing work in the field. Warning signage (and fencing if necessary) erected to deter unauthorised third party access.</p> <p>The public was not permitted to access to the drill sites. Traffic warning signs and/or traffic management implemented when drilling in road reserves.</p> <p>Rig moves and significant transportation events were communicated to affected parties.</p> <p>Fire prevention equipment, inductions and emergency response plans were in place. Fire risk formed part of the onsite induction and fire fighting equipment appropriate to the site and seasonal conditions was present. Sparse vegetation poses minimal fire risk.</p> <p>The sump and any other hazards were fenced following drilling to minimise public safety risks.</p> <p>Site rehabilitation works are underway and in accordance with the SEO and EIR (Section 6).</p>
<p>8. Minimise disturbance to stakeholders and associated infrastructure</p>	<p>No adverse impact (outside agreed disturbance/compensation areas) on livestock or crops as a result of activities. No reasonable concerns raised by stakeholders are left unresolved.</p>	<p>Compliant / Achieved</p>	<p>Landholders have been consulted regarding the drilling and any issues raised were incorporated into the planning of the drilling program.</p> <p>Formal notices of entry were issued to landholders. Close consultation was maintained with landholders regarding issues such as stock management and use of tracks and water bores, to ensure that drilling activities are undertaken in a way that minimises disruption.</p> <p>Drill sites were located away from houses, bores and yards. Vehicles driven at appropriately slow speeds to avoid undue disturbance.</p> <p>During site restoration, suitable fencing was erected to isolate the sump. The sites are being restored according to industry standards (e.g. as outlined in the EIR (Section 6) and SEO). No reasonable stakeholder concerns / complaints have been left unresolved.</p>
<p>9. Minimise the visual impact of operations</p>	<p>The attainment of 0, +1 or +2 GAS criteria for 'Minimise visual impact' objective for wellsite restoration listed in Appendix 2.</p>	<p>Compliant / Achieved</p>	<p>Previously disturbed areas were selected for drilling, which minimised the visual impacts.</p> <p>Minimal vegetation clearance and earthworks were required for site and access preparation. Rehabilitation signoff has been finalised.</p> <p>Site rehabilitation works are underway and in accordance with the SEO and EIR</p>

			(Section 6).
10. Minimise the impact on the environment of waste storage, handling and disposal	<p>No soil, surface water or ground water contamination as storage and disposal a result of waste</p> <p>All wastes have been disposed of at an EPA licensed facility with the exception of drilling fluids, drill cuttings and other fluids disposed during well clean-up.</p> <p>The attainment of 0, +1 or +2 GAS criteria for 'Site to be left in a clean, tidy and safe condition'</p>	Compliant / Achieved	<p>Covered bins were available on site for the capture of all solid waste materials and waste securely transported to an approved disposal facility.</p> <p>Portable, self-contained toilet facilities were located on site, and sewage treated on site to water Class C standard in accordance with Health Department regulations.</p> <p>Litter cleaned up during and post drilling.</p> <p>Drill cuttings/chippings and muds disposed of in drill sump.</p> <p>Site rehabilitation works are underway and in accordance with the SEO and EIR (Section 6).</p>
11. Remediate and rehabilitate operational areas to agreed standards	<p>The attainment of 0, +1 or +2 GAS criteria for 'Minimise visual impact', 'Re-establish native vegetation on abandoned wellsites and access tracks' where the revegetation of native species is required and 'Site to be left in a clean, tidy and safe condition' objectives listed in Appendix 2</p>	Compliant / Achieved	<p>Access tracks and drilling sites rehabilitated and remediated according to industry standards and SEO requirements. Refer also to Objectives 2, 4, 5, 6, 7, 8, 9, 10. Linc EMS procedures address quality of rehabilitation prior to contractor sign-off.</p> <p>Site rehabilitation works are underway and in accordance with the SEO and EIR (Section 6).</p>

**Table 6: Compliance with Statement of Environmental Objectives – Geophysical Operations**

The 2D Seismic Survey undertaken during this reporting period and all field assessments undertaken for the notification and activities approval process were carried out in accordance to the objectives of the Statement of Environmental Objectives (SEO) for Geophysical Operations, as detailed in Table 6 below.

<i>Objective</i>	<i>Assessment Criteria</i>	<i>Compliant/Non-Compliant</i>	<i>Comments</i>
1. Avoid disturbance to sites of cultural and heritage significance	No impact to sites of Aboriginal or non – indigenous heritage significance without approval under the Aboriginal Heritage Act 1988 and Heritage Places Act 1993	Compliant / Achieved	Work Area Clearances (WACs) with the relevant native title group have been carried out. Activities were confined to the areas cleared by the WAC's
2. Minimise disturbance to native vegetation and native fauna	Any sites of rare, vulnerable and endangered flora and fauna have been identified, flagged and subsequently avoided. Significant remnant vegetation has not been cleared without specific consultation with PIRSA, Native Vegetation Council and DEH prior to activity approval. Campsite and survey line preparation The attainment of either 0, +1 or +2 GAS criteria for “Impact on vegetation objective no mature trees are removed, No off-line or off-access driving.” The attainment of 0, +1 or +2 GAS criteria for “Re-establish native vegetation on abandoned access tracks” No fires during drilling activities. Fuel and Chemical Storage and Handling Waste Management	Compliant / Achieved	Assessments indicated that significant (or rare or threatened) flora and fauna are not present or likely to occur at the sites. Vegetation clearance was minimised and the clearance of long-lived/significant species avoided, in accordance with standard procedures. Where possible existing access tracks were utilised during line clearing. Access tracks have been rehabilitated and remediated according to industry standards (e.g. as outlined in the EIR (Section 6) and the SEO). The storage, use and disposal of hazardous material were in accordance with legislative requirements. Fire risk formed part of the onsite induction and fire fighting equipment appropriate to the site and seasonal conditions was present. Sparse vegetation poses minimal fire risk.

<p>3. Avoid the introduction or spread of exotic species and implement control measures as necessary</p>	<p>Weeds or feral animals are not introduced into, or spread, in operational areas</p>	<p>Compliant / Achieved</p>	<p>Landholders were consulted regarding weed management.</p> <p>Equipment brought to site was free of soil or weed material. Any equipment that had been operating outside the Arckaringa Basin or in an area of weed infestation was thoroughly inspected and washed down before going to site.</p> <p>Good housekeeping practices were followed to discourage pest animal species.</p>
<p>4. Minimise disturbance and contamination to soil resources</p>	<p>The attainment of 0, +1 or +2 GAS criteria for 'Disturbance to land surface'.</p> <p>Fuel and Chemical Storage and Handling – Soil in areas affected by any spill is removed and/or bio-remediated.</p> <p>No soil contamination as a result of fuel and chemical storage and handling.</p> <p>Waste Management</p>	<p>Compliant / Achieved</p>	<p>The area utilised for drilling activities and seismic recording was restricted to the smallest practicable.</p> <p>Unnecessary/unauthorised off-road driving or creation shortcuts were avoided.</p> <p>No sensitive land systems (salt lakes, steep slopes or boggy coastal areas) were present.</p> <p>Areas of compaction ripped where appropriate in accordance with industry standards (e.g. EIR and SEO). Rehabilitation signoff has been finalised.</p> <p>Linc and/or contractor procedures covered waste management and fuel storages response. Material Safety Data Sheet (MSDS) information was readily available on site.</p>
<p>5. Minimise disturbance to drainage patterns and avoid contamination of surface waters and shallow groundwater resources</p>	<p>Campsite and Access tracks are located to maintain pre-existing water flows (i.e. channel contours are maintained on floodplains and at creek crossings). The attainment of 0, +1 or +2 GAS criteria for 'Minimise disturbance to drainage patterns'</p> <p>No contamination of surface waters and shallow groundwater resources as a result of fuel or chemical storage and handling.</p> <p>Waste Management</p>	<p>Compliant / Achieved</p>	<p>Campsite and lease and line preparation aimed to minimise impacts to drainage systems, by avoiding sensitive areas and using appropriate preparation methods to avoid or minimise the development of windrows.</p> <p>Areas of compaction ripped where appropriate in accordance with industry standards (e.g. EIR and SEO). Rehabilitation signoff has been finalised.</p> <p>Fuel tanks and delivery systems regularly inspected by Linc Supervisor and rejected if found unsuitable.</p> <p>The storage, use and disposal of hazardous material was undertaken in accordance with legislative requirements. Material Safety Data Sheet (MSDS) information will be readily available on site.</p>

<p>6. Minimise risks to the safety of the public, employees and other third parties</p>	<p>No injuries to the public or third parties as a result of drilling, completion and initial production testing activities</p>	<p>Non-Compliant  LTI Seismic Contractor</p>	<p>Health and Safety plans, Emergency Response Plan developed and implemented by Linc and its contractors in accordance with legislative requirements, SEO and industry standards (e.g. as outlined in the EIR (Section 6)).</p> <p>All employees undertook a safety induction prior to commencing work in the field. Warning signage (and fencing where necessary) erected to deter unauthorised third party access.</p> <p>LTI to employee of seismic contractor corrective actions managed.</p> <p>The public was not permitted access to the survey program or site of activity.</p> <p>Significant transportation events were communicated to affected parties.</p> <p>Fire prevention equipment, inductions and emergency response plans were in place. Fire risk formed part of the onsite induction and fire fighting equipment appropriate to the site and seasonal conditions was present. Sparse vegetation poses minimal fire risk.</p> <p>Hazards were fenced to minimise public safety risks.</p> <p>Site rehabilitation works were in accordance with the SEO and EIR (Section 6).</p>
<p>7. Minimise disturbance to livestock, pastoral infrastructure and landholders</p>	<p>No adverse impact on livestock a result of activities. No reasonable concerns raised by stakeholders are left unresolved.</p>	<p>Compliant / Achieved</p>	<p>Landholders have been consulted regarding the seismic activity and any issues raised were incorporated into the planning of the program.</p> <p>Formal notices of entry were issued to landholders. Close consultation was maintained with landholders regarding issues such as stock management and use of tracks and water bores, to ensure that seismic activities are undertaken in a way that minimises disruption.</p> <p>Vehicles driven at appropriately slow speeds to avoid undue disturbance.</p> <p>The lines leases and campsites were restored according to industry standards (e.g. as outlined in the EIR (Section 6) and SEO). No reasonable stakeholder concerns / complaints were left unresolved.</p>

<p>8. Minimise the visual impact of operations</p>	<p>The attainment of 0, +1 or +2 GAS criteria for 'Minimise visual impact' objective for campsite and line preparation</p>	<p>Compliant / Achieved</p>	<p>Existing access tracks were selected where possible, which minimised the visual impacts.</p> <p>Minimal vegetation clearance and earthworks were required for leases and campsite preparation. Rehabilitation signoff has been finalised for seismic lines.</p> <p>Sites were ripped where compaction was evident and windrows minimal and areas restored.</p>
<p>9. Minimise the impact on the environment of waste storage, handling and disposal</p>	<p>The attainment of 0, +1 or +2 GAS criteria for 'pollution of litter' objective for campsite and line preparation.</p> <p>Wastewater disposal and spills have been managed appropriately.</p>	<p>Compliant / Achieved</p>	<p>Covered bins were available on site for the capture of all solid waste materials and waste securely transported to an approved disposal facility.</p> <p>Portable, self-contained toilet facilities were located on site, and sewage treated on-site using approved treatment plant in accordance with Health Department regulations.</p> <p>Litter cleaned up during and post survey</p> <p>Rehabilitation signoff has been finalised.</p>
<p>10. Remediate and rehabilitate operational areas to agreed standards</p>	<p>The attainment of 0, +1 or +2 GAS criteria for 'Minimise visual impact', 'Impact on infrastructure' 'Uphole site restoration' Disturbance to land surface'</p>	<p>Compliant / Achieved</p>	<p>Access tracks, leases, survey lines and campsites remediated according to industry standards and SEO requirements. Refer also to Objectives 2, 4, 5, 6, 7, 8, 9, 10. Linc EMS procedures address quality of rehabilitation prior to contractor sign-off.</p> <p>Rehabilitation signoff has been finalised.</p>

## Regulation 33 (2) (d):

### *Management System Audits*

No internal management system audits were undertaken during the term.

## Regulation 33 (2) I:

### *Reports generated during the Licence year*

**Table 7: Reports generated during the Licence year**

SAPEX Ltd / Linc Energy Ltd, (2010). Report on Analysis of Core and Cutting Cootanoorina 1, Weedina 1, SR 1, Hanns Knob 1, Birribiana 1, Boothanna 1, Arckaringa Basin South Australia.					
<b>Due Date</b>	7 January 2011	<b>Date Submitted</b>	22 December 2010	<b>Compliant</b>	Yes
SAPEX Ltd / Linc Energy Ltd, (2010). Biomarker Signatures of Cootanoorina Formation in the Boothanna Trough, Arckaringa Basin South Australia.					
<b>Due Date</b>	25 February 2011	<b>Date Submitted</b>	1 February 2011	<b>Compliant</b>	Yes
SAPEX Ltd / Linc Energy Ltd, (2011). Incident investigation Report An investigation into the flow of ground water from the Haystack 1 well, Arckaringa Basin South Australia.					
<b>Due Date</b>	6 September 2011	<b>Date Submitted</b>	1 September 2011	<b>Compliant</b>	Yes
SAPEX Ltd / Linc Energy Ltd, (2011). Incident investigation Report An investigation into the flow of ground water from the Haystack 1 surface facilities, Arckaringa Basin South Australia.					
<b>Date Due</b>	17 September 2011	<b>Date Submitted</b>	13 September 2011	<b>Compliant</b>	Yes
SAPEX Ltd / Linc Energy Ltd, (2011). Emergency Response Drill Report PEL 121 – 2D Seismic Survey, Arckaringa Basin South Australia.					
<b>Date Due</b>	23 May 2011	<b>Date Submitted</b>	25 July 2011	<b>Compliant</b>	Yes
McGee Associates and Daybro Geophysical, (2011). Linc 2010 Reprocessing Program Interpretation Report PELs 117, 121, 122, 123, Arckaringa Basin South Australia.					
<b>Due Date</b>	21 December 2011	<b>Date Submitted</b>	29 March 2011	<b>Compliant</b>	Yes
McGee Associates and Daybro Geophysical, (2011). Linc 2010 Reprocessing Program Processing Report PELs 117, 121, 122, 123, Arckaringa Basin South Australia.					
<b>Due Date</b>	21 December 2011	<b>Date Submitted</b>	29 March 2011	<b>Compliant</b>	Yes

RPS Environmental and Planning, (2011), <i>Environmental Assessment Report Arckaringa Basin Drilling 2011 Arckaringa Basin</i> , South Australia.					
<b>Due Date</b>	N/A	<b>Date Submitted</b>	29 March 2011	<b>Compliant</b>	Yes
RPS Environmental and Planning, (2011), Haystack 1 Groundwater Release Site Inspection <i>Arckaringa Basin Drilling 2011 Arckaringa Basin</i> , South Australia.					
<b>Due Date</b>	N/A	<b>Date Submitted</b>	13 July 2011	<b>Compliant</b>	Yes
RPS Environmental and Planning, (2011), Supplement to Environmental Assessment Report – South Well Spring <i>Arckaringa Basin</i> , South Australia.					
<b>Due Date</b>	N/A	<b>Date Submitted</b>	21 March 2011	<b>Compliant</b>	Yes
Maeorg M., (2011). Arckaringa Basin Work Area Clearance 17-21 January 2011 A102071-2 2D Seismic Survey, William Creek Alternate 1 & 2 Wells, and Haystack Well Borrow Pits 1 & 2 in PELs 121, 122, 123.					
<b>Due Date</b>	N/A	<b>Date Submitted</b>	N/A	<b>Compliant</b>	
Cuthbertson. T. and Fergie. D., (Jan 2011). Haystack Sibsey, Stratigraphic 1 & 2 Wells and Access Roads; and 2D Seismic Survey in PELs 117, 121 and 122 Arckaringa Basin <i>Work Area Clearance A102071</i> Ularaka Arabunna Association Inc.					
<b>Due Date</b>	N/A	<b>Date Submitted</b>	9 January 2011	<b>Compliant</b>	Yes
SAPEX Ltd / Linc Energy Ltd, (2010). Annual Report PELs 117, 12 and 122 for the period 3 October 2009 to 2 October 2010.					
<b>Due Date</b>	1 December 2010	<b>Date Submitted</b>	14 December 2010	<b>Compliant</b>	Yes
Haines. T., (2011). Work Area Clearance Survey: A report to SAPEX Ltd and AMYAC.					
<b>Due Date</b>	N/A	<b>Date Submitted</b>	3 February 2011	<b>Compliant</b>	Yes
Freeman. S., (2011). Work Area Clearance of the proposed Linc Energy/SAPEX Limited 2011 Arckaringa 2D Seismic programme on PEL 117; located to the west and south west of Oodnadatta, in the Far North of South Australia, a report for Yankunytjatjara/Antakirinja Native Title Claimant Group.					
<b>Due Date</b>	N/A	<b>Date Submitted</b>	20 June 2011	<b>Compliant</b>	Yes

Cane. S and Cane A,. (2010). Work Program Clearance PEL 117 Yankunytjatjara Native Title Determination Area, Arckaringa Basin South Australia.					
<b>Due Date</b>	N/A	<b>Date Submitted</b>	12 January 2011	<b>Compliant</b>	Yes
SAPEX Ltd / Linc Energy Ltd, (2011). Emergency Response Plan – Drilling and Exploration Arckaringa Basin South Australia.					
<b>Due Date</b>	N/A	<b>Date Submitted</b>	25 March 2011	<b>Compliant</b>	Yes
SAPEX Ltd / Linc Energy Ltd, (2011). Emergency Response Plan – Cootanoorina 2 Drilling and Exploration Arckaringa Basin South Australia.					
<b>Due Date</b>	N/A	<b>Date Submitted</b>	22 August 2011	<b>Compliant</b>	Yes
RPS Environmental and Planning, (2011) Technical Safety and Risk HAZID Report for Environmental and Planning, (2011), Supplement to Environmental Assessment Report – South Well Spring Arckaringa Basin, South Australia.					
<b>Due Date</b>	N/A	<b>Date Submitted</b>		<b>Compliant</b>	Yes
SAPEX Ltd / Linc Energy Ltd, (2011). Health, Safety & Environment Management Plan Drilling and Exploration Arckaringa Basin South Australia.					
<b>Due Date</b>	N/A	<b>Date Submitted</b>	23 March 2011	<b>Compliant</b>	Yes
SAPEX Ltd / Linc Energy Ltd, (2011). Emergency Response Plan Wirrangulla Hill 1A and Arck 1 Drilling and Exploration Arckaringa Basin South Australia.					
<b>Due Date</b>	N/A	<b>Date Submitted</b>	21 June 2011	<b>Compliant</b>	Yes
Terrex Seismic, (2010). Emergency Response Plan – 2D Regional Seismic Survey PELs 117, 121 & 123 Arckaringa Basin South Australia.					
<b>Date Due</b>	N/A	<b>Date Submitted</b>	17 January 2011	<b>Compliant</b>	Yes
Terrex Seismic, (2010). Site Specific Safety Procedures – 2D Regional Seismic Survey PELs 117, 121 & 123 Arckaringa Basin South Australia.					
<b>Date Due</b>	N/A	<b>Date Submitted</b>	17 January 2011	<b>Compliant</b>	Yes
Terrex Seismic, (2010). Safety Management Plan – 2D Regional Seismic Survey PELs 117, 121 & 123 Arckaringa Basin South Australia.					
<b>Date Due</b>	N/A	<b>Date Submitted</b>	17 January 2011	<b>Compliant</b>	Yes

## **Regulation 33 (2) (f):**

### ***Incidents reported to the Minister under the Act***

- Serious Incident 1 - Haystack 1 well 74km South of Oodnadatta, SA on 7 June 2011
  - The Haystack 1 well experienced a flow of water between the 13 3/8" (inch) and 20" (inch) cement annulus at a depth of approximately 24 metres and was subsequently killed by cementing.
    - Cause;

It appears that ground water channeling through the annulus due to the cement not having enough hydrostatic pressure to contain it, this may have resulted when the window was cut in the conductor and cement drained, resulting in a hydrostatic head decrease.
    - Impact;

an assessment of the impact of the water flow from an environmental perspective was made and assessed to be minor as no waterways, habitats of significance or other sensitive receptors were impacted. Given no mud losses were noted and only a small section of the Cadna-Owie Formation was exposed (24m) at the time of the incident there is limited possibility of cross flow between different aquifers. Additionally all produced groundwater was contained within the sump and contained no contaminants of concern. The incident is therefore not expected to have any adverse environmental impacts.
    - Rehabilitation;

The well was killed by cementing and the site rehabilitated by backfilling attempted repair works.
    - Corrective Actions;
      1. Factors that will be reviewed for ongoing / future drilling include:
        - a. Well /casing /collar design, installation, cementing and construction
        - b. Cementing chemicals to help prevent water channeling
        - c. Drilling additives to prevent shallow water invading well.
- Serious Incident 2 - Haystack 1 well 74km South of Oodnadatta, SA on 18 June 2011.
  - The Haystack 1 well encountered pressurised aquifers during the early stages of drilling. The well was successfully killed with drilling mud and cement plugged at 109m. Given the

large volumes of water that had to be release from the well, while drilling it was necessary to construct a second sump for containment. Water was spotted flowing from the eastern wall of the sump the volume of water escaping was too great to contained and followed the natural drainage lines outside of the previously cleared area and onto the salt flat and pooled at the lowest point. After encountering pressurized aquifers during the early stages of drilling it was decided to set an intermediate casing string as isolation, cement was pumped but failed to isolate the loss zone

- Cause;

The water flow from sump 2 was found to be due to the design of the surface facilities, built quickly to deal with unexpectedly high volume groundwater flows. Given the water table being less than 1.5m from the surface a deep sump was unable to be constructed as would normally be the case. Instead sump 2 was constructed to a shallow depth with additional volume achieved by an aboveground bund.

- Impact;

An assessment of the surface and groundwater impacts from Haystack 1 incident will have negligible effect on the receiving environment as no waterways, habitats of significance or other sensitive receptors were impacted by the single, small scale discharge of groundwater within or around the site.

- Rehabilitation;

The well was killed with drilling mud and the site rehabilitated by backfilling attempted repair works.

- Corrective Actions;

1. Factors that will be reviewed for ongoing / future drilling includes;

- a. Site layout and location
- b. Ensuring adequate storage capacity is available for drilling / well fluids and that contingency plans are in place (e.g. for groundwater flows)
- c. Construction / inspection processes of pits / sumps / ponds including:
  - i. Ensuring the base of the sumo is above the groundwater table, should shallow groundwater tables be encountered
  - ii. Use of appropriate materials for lining the sump(s)
  - iii. Extending the construction of the sumps above ground level, where required and practical to do so.

- Serious Incident 3 – Wirrangulla Hill 1A well uncontrolled flow of water to surface.
  - After cementing the 4 ½” intermediate casing approximately 100 bbls of formation water flowed to surface. All the water was contained in the cellar and pumped to the flare pit as required and no water was spilled on the ground. A small amount of cement and drilling fluid may have penetrated the formation but it is considered unlikely that this would have posed any threat to aquifers. The well was killed by bullheading drilling fluid down the 7” x 4 ½” casing annulus and the annulus secured by bullheading cement.
    - Cause;
 

The most likely cause of the incident was the heavy cement breaking down and flowing into the formation which allowed water to flow from above the loss zone. It is also possible that the use of an un-weighted water spacer contributed to the flow.
    - Impact;
 

The environmental impacts from this incident are considered to be negligible with regards to the surface environment as the formation water was contained to surface pits. The impact on aquifers is also considered to be minor as only a small amount of cement and drilling fluid was lost to the formation.
    - Rehabilitation;
 

No surface rehabilitation was required as all produced fluids were contained in surface pits. The downhole environment was secured by bullheading cement into the loss zone.
    - Corrective Actions;
      2. Factors that will be reviewed for ongoing / future drilling include:
        - a. Use of weighted spacers when cementing small hole sizes.
        - b. Use of light weight slurries in cementing programs

**Table 8: Serious Incidents reported to the Minister under the Act**

Date	Incident	Well	Reported Reg 32(2)(a)(i)	Incident Report Reg 32(2)(b)	Compliant
6 Jun 2011	Serious incident	Haystack 1	7 June 2011	1 Sept 2011	Y
18 Jun 2011	Serious incident	Haystack 1	20 June 2011	13 Sept 2011	Y
13 Sept 2011	Serious incident	Wirrangulla Hill 1	14 Sept 2011	Due 12 Dec 2011	Y

- Reportable Incident – PEL 121 - Haystack 1 drilling campaign
- During the drilling campaign of Haystack 1 on PEL 121 an incident occurred that was investigated and determined not to be a serious incident as defined in the Statement of Environmental Objectives (SEO) for Exploration Drilling Activities.
  - PIRSA was notified of an engine oil spill on the access track to the Haystack 1 lease. In total 30 litres of sump oil was lost onto the ground from a punctured engine sump of a moving truck. The area was cleaned up and oil disposed of at an EPA approved facility as per the SEO. A comprehensive incident report was undertaken and provided to PIRSA.

**Table 9: Reportable Incidents**

Date	Incident	Well	Reported PIRSA Reg 32(1)(b) & 32(5)	Compliant
28 May 2011	Engine Oil Spill	Haystack 1	31 May 2011	Yes

**Regulation 33 (2) (g):**

***Foreseeable threats that present a hazard to facilities or activities***

- Woomera Test Range Facility –
  - PEL 122: the southern portion of PEL 122 lies within the Woomera Prohibited Area, SAPEX signed a 6 month Deed of Access agreement with the Department of Defence to enter the area to undertake activities. An access agreement will be an ongoing requirement to conduct any activities on this licence area.
- No threats to activities which are not already covered in the relevant EIR’s for exploration and seismic programs.

**Regulation 33 (2) (h):**

***Operations proposed for 1 Year of Term 2***

SAPEX is undertaking a review of PELs 117, 121 and 122 for renewal and part relinquishment requirements to advance into Year 1 of Term 2. With this review a new five (5) Year Work Program will be determined.

## 5. Expenditure Statement

### **Regulation 33 (3):**

*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.*