

# **Open File Envelope**

## **No. 12,063**

**EL 4272**

**CADAREE HILL**

### **FIRST PARTIAL SURRENDER REPORT FOR THE PERIOD 24/6/2009 TO 23/6/2010**

Submitted by  
Linc Energy Ltd  
2010

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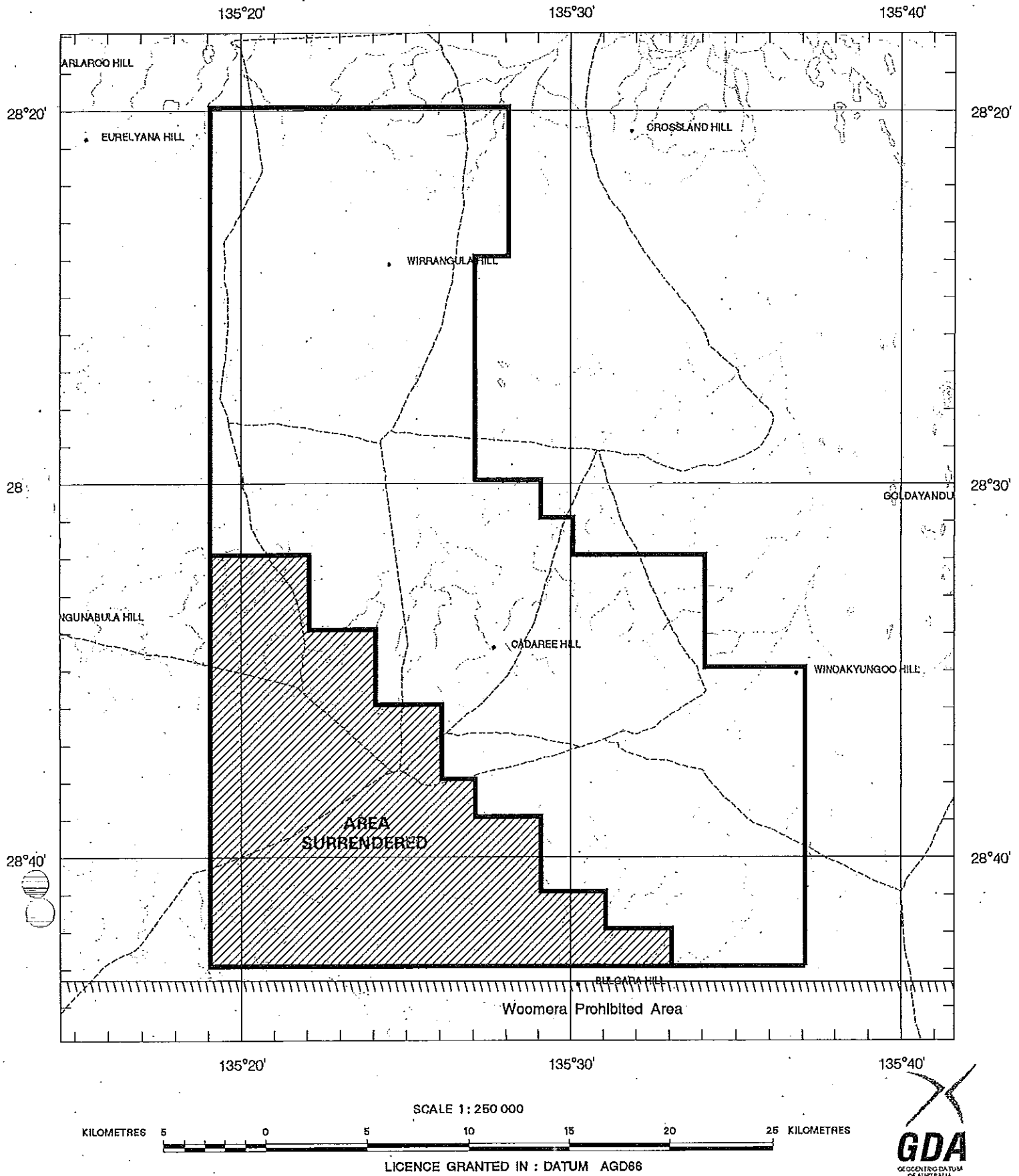
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**Government of South Australia**  
Primary Industries and Resources SA

# SCHEDULE A



APPLICANT : **SAPEX LTD**

FILE REF : **347/08**

TYPE : **MINERAL ONLY**

AREA : **632 km<sup>2</sup> (approx.)**

1:250000 MAPSHEETS : **WARRINA**

LOCALITY : **CADAREE HILL AREA - Approximately 80 km northeast of Coober Pedy**

DATE GRANTED : **24-Jun-2009**

DATE EXPIRED : **23-Jun-2010**

EL NO : **4272**



## **EXPLORATION LICENCE 4272**

**Cadaree Hill**

**South Australia**

### **Partial Relinquishment Report**

**For the Period**

**24 June 2009 to 23 June 2010**

***Tenement Holder:*** SAPEX Limited (A wholly owned subsidiary of Linc Energy)

***Operator:*** Linc Energy Limited

***Date:*** August 2010

***Distribution:*** PIRSA Minerals Energy and Resources (digital copy)  
Linc Energy Limited (digital + hard copy)

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## **1. Summary**

Exploration Licence 4272, 'Cadaree Hill', covering an area of 885km<sup>2</sup> lies northeast of Coober Pedy, in the Arckaringa Basin, South Australia was reduced from 885 km<sup>2</sup> to 663.5 km<sup>2</sup> (25% reduction) at renewal, June 2010.

EL 4272 was acquired for coal exploration of the Permian Mount Toondina Formation in the Arckaringa Basin.

This report describes activities conducted on the relinquished portion of the tenement area from grant 24 June 2009 to 23 June 2010.

Summary of all activities conducted include; Archive data compilation and 3D modeling

### **Keywords**

Linc Energy, SAPEX, Coober Pedy, Arckaringa, 1:250 000 Map Sheet – Warrina, 1:100 000 Map Sheet – Eurelyana, Coal, Arckaringa Basin.

### **Exploration Index Map**

1:250 000 Map Sheet –	WARRINA	(SH 53-03)
1:100 000 Map Sheet –	EURELYANA	(5941)
	OOLGELIMA	(5940)
	BOORTHANNA	(6040)

## 2. Introduction

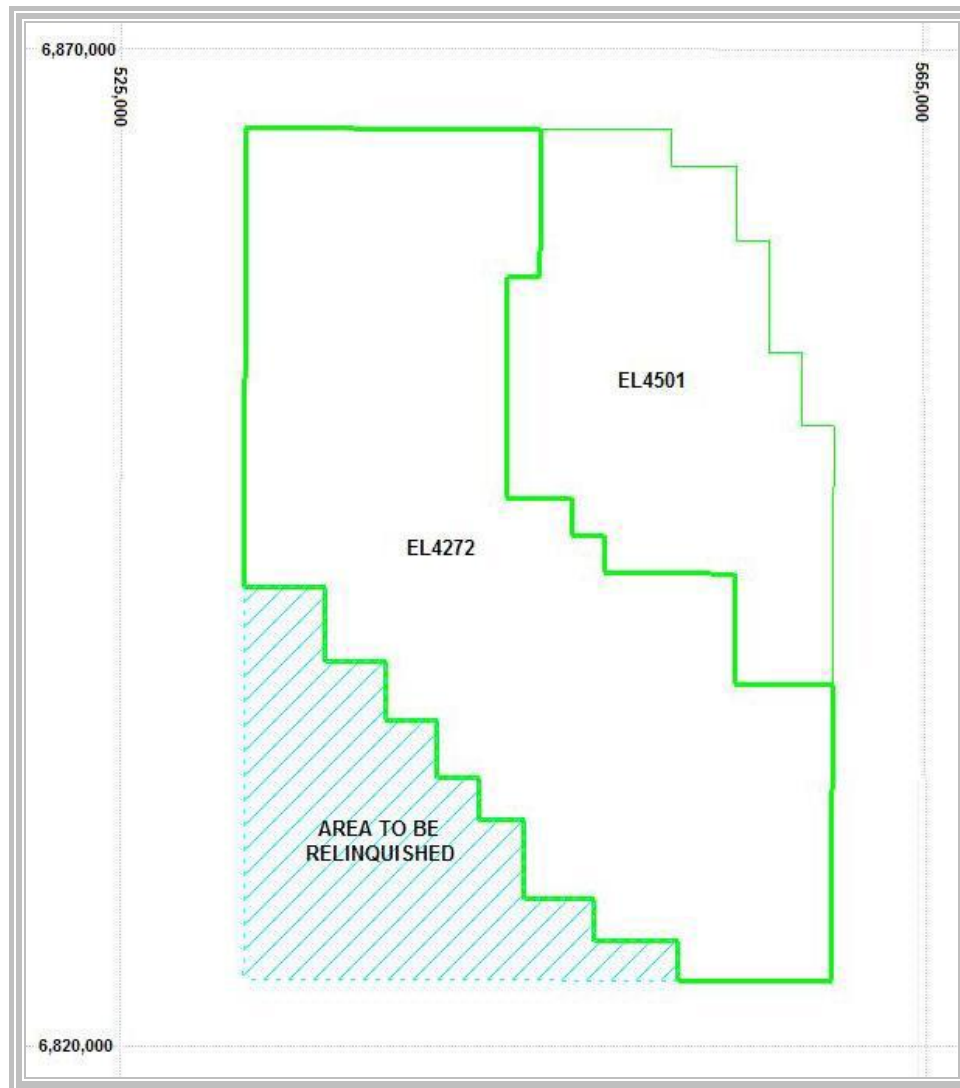
EL 4272 is located northeast of Coober Pedy and approximately 100km south of Oodnadatta in the Arckaringa Basin, SA.

The tenement was granted to SAPEX Limited wholly owned subsidiary of Linc Energy Limited on 24 June 2009 for a term of one(1) year.

At renewal a reduction in area by 25% (221.5km<sup>2</sup>) was lodged with PIRSA. An area identified in the southwest corner of the tenement was deemed as having the least prospective coal targets and selected for relinquishment.

**Table 1: EL 4272 Tenure Status (extract from SARIG, 2010)**

TEN_NUM	TEN_TYPE	GRANTED	EXPIRY	AREA_KM2	FILE_REF	LOCALITY	LOCAL_DESC	MIN_ONLY	DATUM	LICENSEE
4272	EL	24/06/2009	23/06/2010	885	347/08	Cadaree Hill	Approximately 80 km northeast of Coober Pedy	Y	AGD66	SAPEX Ltd



**Figure 1-** Exploration Licence 4272 - illustrating relinquished portion (MGA 53)

### **3. Work Conducted**

Activities conducted on the relinquished portion of the tenement area from grant 24 June 2009 to 23 June 2010, included; Archive data compilation and 3D modeling of coal

#### **Archive data compilation and modeling of coal**

A variety of historical data such as seismic and borehole logs collected in the 1980s from Cyprus Australia Coal Company and Getty Oil Development Company Ltd was formatted and uploaded into the 3D mining software package, Vulcan. Once the database was constructed, an Arckaringa Basin super model was produced and subsequent contour plots of the structure, thickness and midburden were created and examined along with cross-sections to validate seam names given to coal intersections. Composite coal thickness grids were also constructed. This data capture aids to develop a mining feasibility study and for the purpose of identifying targets for future drilling programs. Boreholes that were not drilled deep enough to intersect the full coal sequence were given interpolated depths and thicknesses for the missing coal horizons from surrounding holes. The interpolation was also conducted using Vulcan.

Bore hole coverage was generally quite sparse within EL 4272, with most of the holes being concentrated nearer the central eastern boundary, coinciding with the location of the Weedina deposit. Spacing is generally around 6km apart, following no obvious grid pattern. The coal seams in most cases can be confidently correlated between bore holes within EL 4272 and the greater Weedina deposit in EL 4501. Correlations become increasingly difficult further west as the basin shallows and coal horizons become thinner and more interbedded.

Bore hole 8501 did not record any coal intersections and bore hole 8502 recorded 11 thin interbedded seams.

### **4. Rehabilitation**

Linc Energy did not conduct any exploration on any of the area relinquished from this exploration licence during the period in which it has held this exploration tenement. As there was no field exploration conducted by Linc on the area relinquished, Linc caused no contamination of land on this area. Accordingly, Linc has not conducted any rehabilitation on the area in question. In the same way, there is no requirement for ongoing rehabilitation, maintenance and management. Finally, Linc has met all applicable statutory responsibilities and there are no public safety liability issues to disclose on Linc Energy's behalf.

## 5. References

Drexel, J.F. and Preiss, W.V. (Eds), 1995. *The Geology of South Australia*. Vol. 2, The Phanerozoic. South Australia. Geological Survey. Bulletin, 54.

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SADME. (1991). *Open file Envelope 5910*. South Australia Department of Mines and Energy.

SAPEX/ Linc Energy Ltd (2009). *EL3326\_2009\_Annual Technical Report P.E 12.4.2010*, SAPEX Ltd