

**Queensland Coal Investments Pty Ltd**

**Exploration License 28772 (Andado)**

**Relinquishment Report**

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**Date**

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## 1.0 SUMMARY

Exploration License (EL) 28772 was granted to Queensland Coal Investments Pty Ltd (QCI) on the 4<sup>th</sup> of November 2011 for a period of 6 years. The first relinquishment of 205 sub-blocks (50% of total) is due after the second year of tenure however QCI have elected to do a full relinquishment of all sub-blocks at this time. This decision is based on a desktop review completed in the first tenure year indicating the tenement to have limited potential for economic coal. An attempt was made to enter into a data share arrangement with Santos Ltd (Santos) for seismic data that was to be acquired in 2013. Santos ultimately decided to not give access to the data which contributed to the final decision by QCI to relinquish the entire tenement.

## 2.0 INTRODUCTION

QCI is a wholly owned subsidiary of Hancock Prospecting, and was granted the Exploration License (EL) 28772 on the 4<sup>th</sup> of November 2011 for a period of 6 years. The tenement has a total of 410 sub-blocks (Table 1) covering 1278.11 km<sup>2</sup> of the northwest edge of the Pedirka Basin.

**Table 1 – Blocks and sub-blocks of EL 28772**

Map Sheet 1:1,000,000	Block ID	Sub-Blocks	Number
SG53	469	a,b,c,d,e,f,g,h,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z	25
SG53	470	a,b,c,d,e,f,g,h,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z	25
SG53	471	a,b,c,d,e,f,g,h,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z	25
SG53	539	a,b,c,d,e,f,g,h,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z	25
SG53	540	a,b,c,d,e,f,g,h,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z	25
SG53	541	a,b,c,d,e,f,g,h,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z	25
SG53	542	a,b,c,d,e,f,g,h,j,k,l,m,n,o,q,r,s,v,w,x	20
SG53	610	a,b,c,d,e,f,g,h,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z	25
SG53	611	a,b,c,d,e,f,g,h,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z	25
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SG53	613	a,b,c,d,e,f,g	7
SG53	681	a,b,c,d,e,f,g,h,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z	25
SG53	682	a,b,c,d,e,f,g,h,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z	25
SG53	683	a,b,c,d,e,f,g,h,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z	25
SG53	752	a,b,c,d,e,f,g,h,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z	25
SG53	753	a,b,c,d,e,f,g,h,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z	25
SG53	754	a,b,c,d,e,f,g,h,j,k	10
SG53	755	a,b,c,d,e,f,g,h,j	9
SG53	824	c,d,e,j,k,n,o,p,s,t,u,x,y,z	14
<b>TOTAL</b>			<b>410</b>

The Pedirka Basin is an intracratonic basin straddling the Northern Territory and South Australian borders in Central Australia, with the majority of the basin located in the Northern Territory. The basin is understood to contain two Permo-Carboniferous formations containing coal with potential as a thermal product. This report outlines sub-blocks for relinquishment and the geological details constituting the basis for relinquishment.

## 2.1 Location and Access

Access to the area is from Alice Springs via the Philipson Stock Route which joins the Stuart Highway 72km south of Alice Springs. The Philipson Stock Route passes through the north-east corner of EL28772 and provides access to the Andado Homestead located 80km south of the EL. Todd River Downs is the nearest homestead and is located 25km to the north of the EL and is accessible from the access road to Andado (Figure 1).

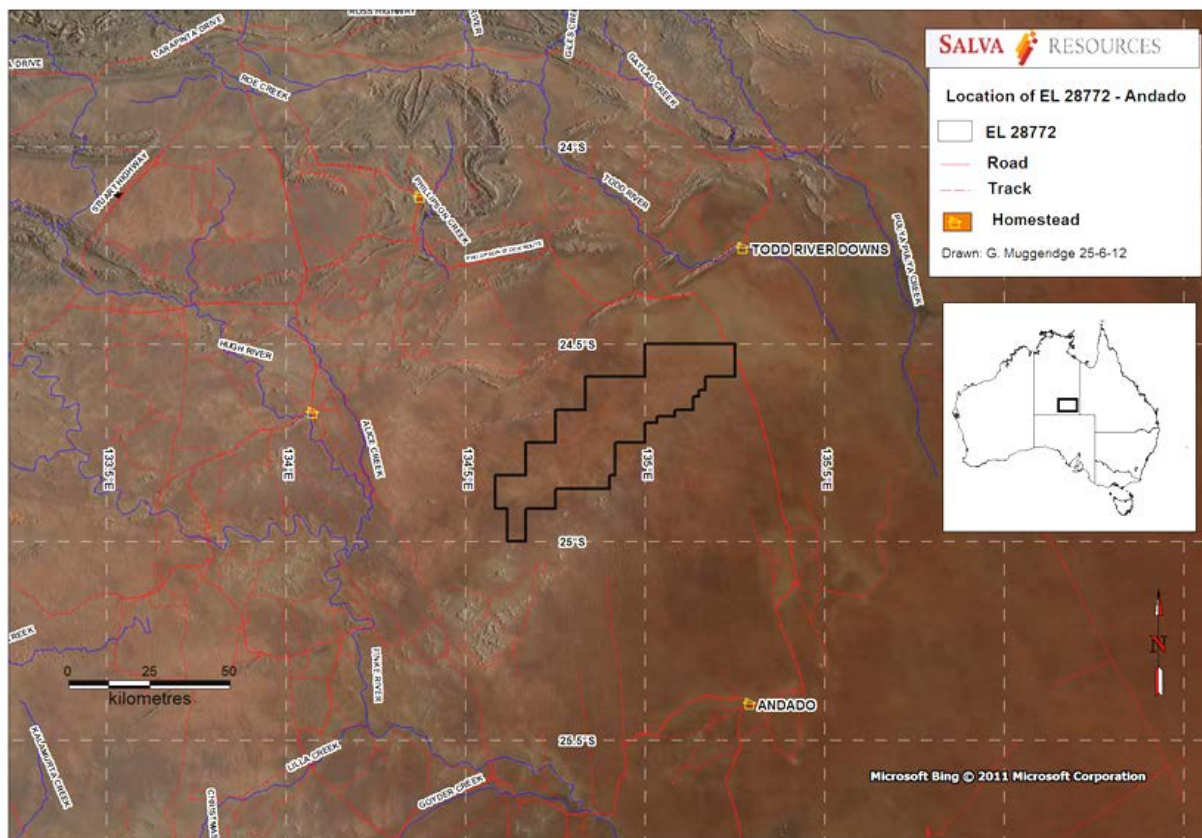


Figure 1– Location of EL 28772

## 3.0 GEOLOGY

### 2.1 Regional Geology

The EL straddles the boundary of the Pedirka Basin where it on-laps the pronouncedly folded lower-middle Palaeozoic Amadeus Basin sequence (Figure 2).

The Amadeus Basin is a large (ca. 170,000 km<sup>2</sup>) intracratonic sedimentary basin in Central Australia. Locally, deposition of up to 14 km of marine and non-marine sedimentary rock took place from the Neoproterozoic to the Late Paleozoic.

The Pedirka Basin unconformably overlies the south east Amadeus Basin and western Warburton Basins. A northwest–southeast compressional phase of the Alice Springs Orogeny in the Mid to Late Carboniferous initiated deposition in the Pedirka and created thrust faults such as those that occur

at Mt Hammersley. Permo-Carboniferous sediments were subsequently deposited in a tectonically quiescent sag phase.

Two Permo-Carboniferous formations are present in the subsurface and outcrop on the basin margin in the Northern Territory. The lowermost unit (Crown Point Formation) consists of fluvio-glacial and glacio-lacustrine sediments. The overlying Purni Formation was deposited in a floodplain environment containing meandering river systems and extensive swamps in which coal developed (Figure 3). Three facies suites are distinguishable on the basis of relative proportions of sandstone, shale and coal.

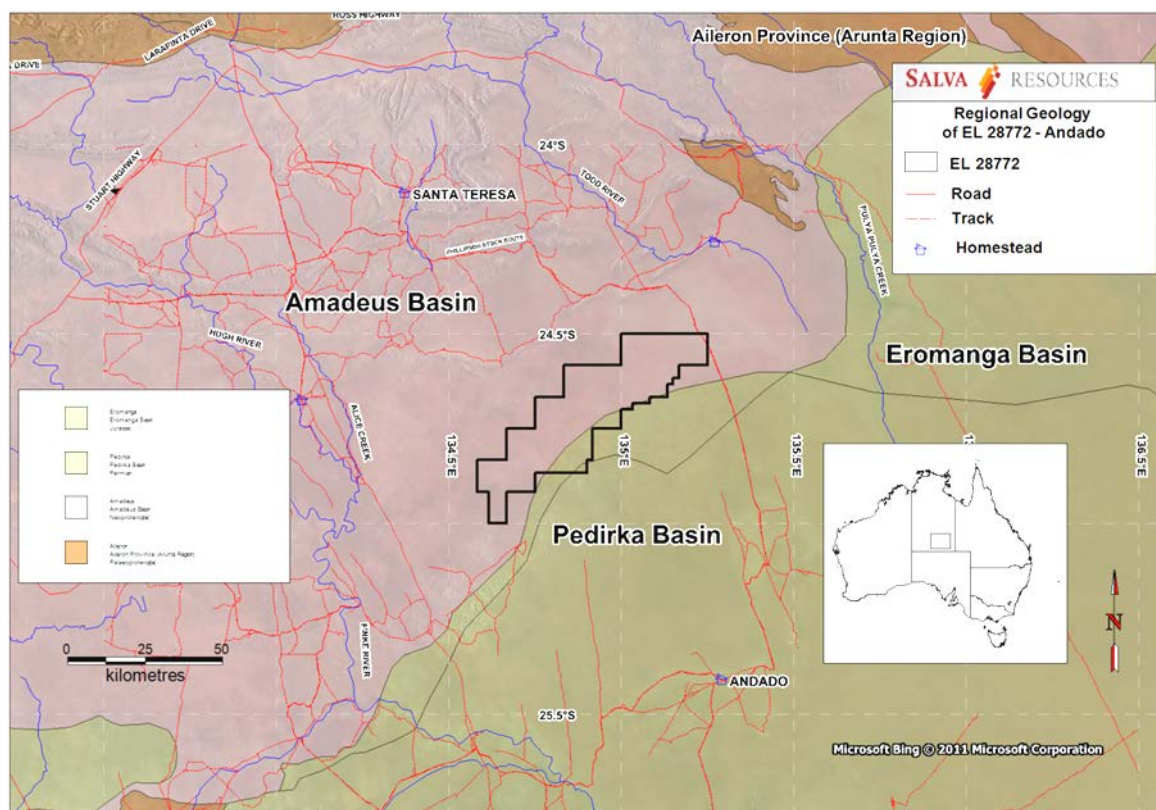


Figure 2– Regional Geology of EL 28772

The eastern part of the Pedirka Basin is covered by a thin section of units of the Simpson Basin which are Triassic in age. This unit is in turn overlain by the much thicker Eromanga Basin formations which are Jurassic-Cretaceous in age. In places, the Simpson Basin section is absent, particularly along the northwest margin of the basin where the Eromanga Basin formations directly and unconformably overlay the Pedirka Basin formations. The major structural elements in the Pedirka Basin are the Erina and Madison Troughs separated by the McDills Anticline (Figure 3). The stratigraphy of the Pedirka and overlying basins is provided in Figure 4.

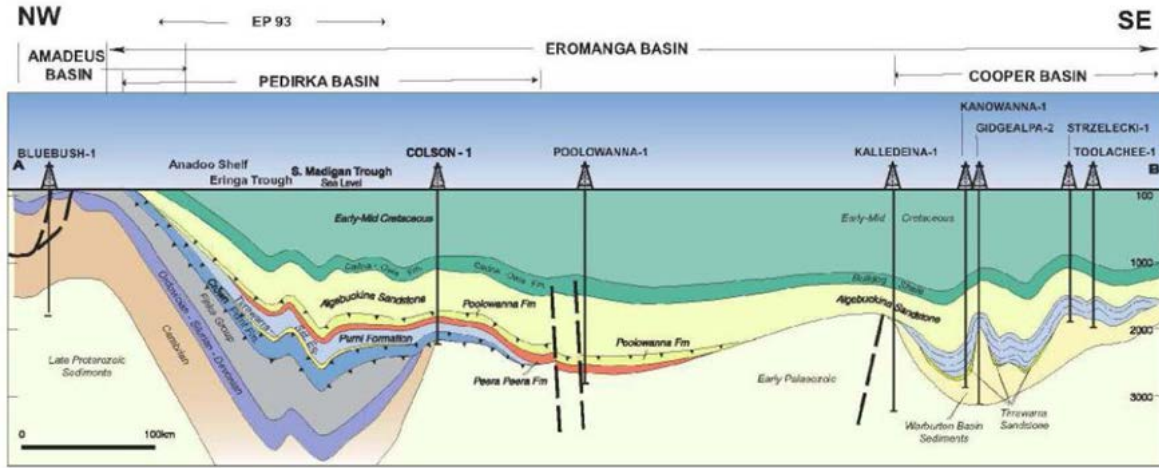


Figure 3– NW/SE cross-section across the Pedirka Basin

BASIN	AGE	STRATIGRAPHY
EYRE	TERTIARY	Recent sediments
		Eyre Formation
EROMANGA	CRETACEOUS	Winton Formation
		Allaru Mudstone
		Tooloobuc Formation
		Cadna-owie Formation
	JURASSIC	Algebuckina Sandstone
		Poolowanna Sandstone
SIMPSON	TRIASSIC	Peera Peera Formation
		Walkandi Formation
PEDIRKA	CARB PERMIAN	Purni Formation
		Crown Point Formation
	PRE-CARB	Undifferentiated

Figure 4 – Stratigraphic table of the Eromanga, Simpson and Pedirka Basins

### 2.2 Project Geology

The topography of the area includes folded ranges, which reflect the underlying geology and structure of Amadeus Basin in the west and north to longitudinal sand dunes that trend across the flat low gradient surface of the Pedirka Basin in a northnorthwest-southsoutheast direction. The Todd, Hugh and Finke Rivers are the main drainage lines in the area although none pass through EL28772. The elevation within the EL ranges from 240 metres to 300 metres at the top of some isolated hills which are located along the eastern boundary of the EL. The EL is transgressed by a closely spaced pattern of north northwest – south southeast trending longitudinal sand dunes and is part of the Simpson Desert.

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Figure 5 shows the 1:250,000 geology as shown on the Rodinga (SG53-02) and Hale River (SG53-03) sheets. The dominant surface geological feature is the Quaternary desert sands which form the edge of the Simpson Desert. The only mapped outcrops of the underlying formations are the low hills containing outcrops of undifferentiated Silurian to Carboniferous sandstone and conglomerates located just inside the south-east boundary of the EL. These are part of the Amadeus Basin sequence.

Cretaceous outliers forming cappings on small conical hills are also present in this part of the EL. These units are the Jurassic De Souza Sandstone and the Cretaceous Rumbalara Shale. Just outside the EL boundary to the southeast there are outcrops of the lower Permian Crown Point Formation comprised of sandstone, pebbly conglomerate and siltstone. This is the basal formation of the Pedirka Basin. There are additional outcrops of the Amadeus Basin formations of Silurian to Carboniferous sandstone outside the EL boundary to the east. Isolated outcrops of the Jurassic De Souza Sandstone and the Cretaceous Rumbalara Shale form mesa like hills in the landscape. A series of playa lakes are present just outside the eastern boundary of the EL.

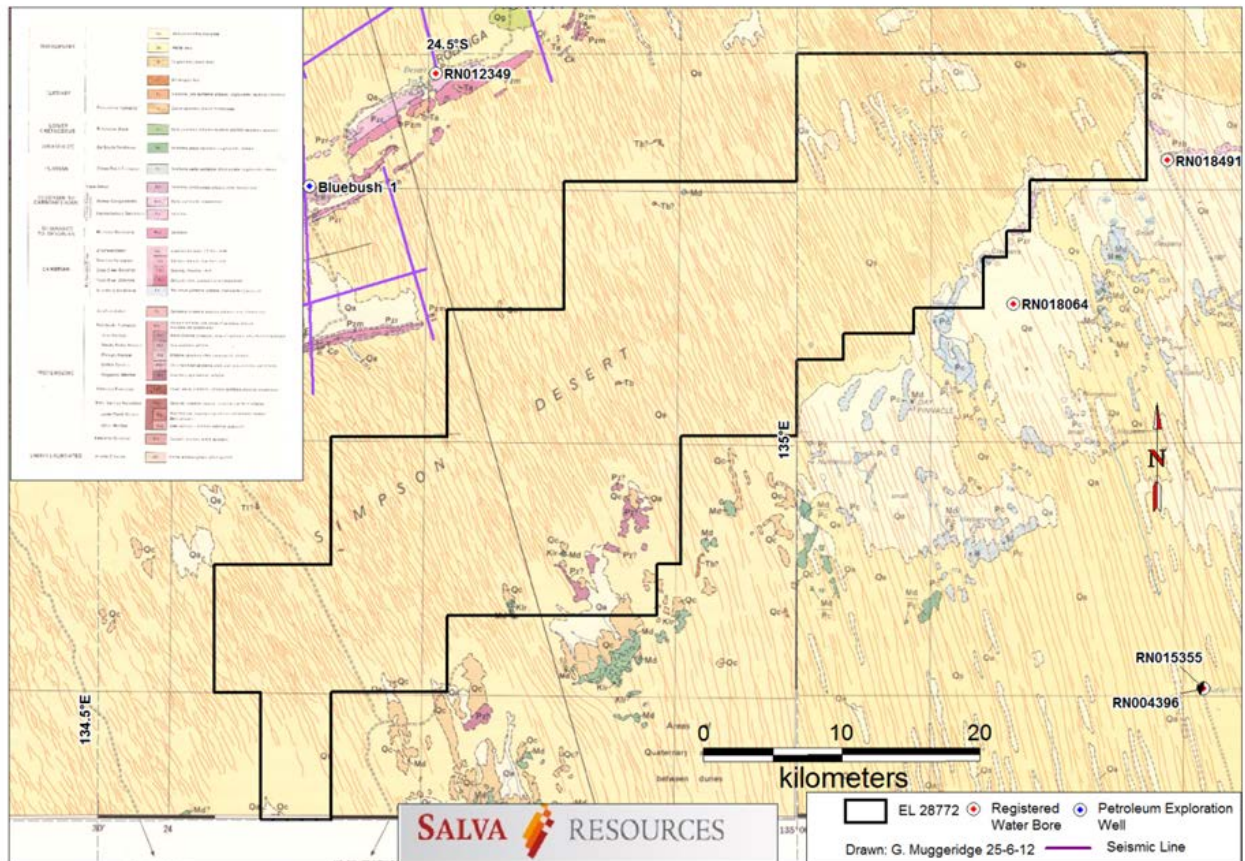


Figure 5– EL 28772 Local geology

### 4.0 BLOCKS RELINQUISHED

All sub-blocks from EL 28772 are to be relinquished, which are represented in yellow in Figure 2 and listed in Table 2 below.

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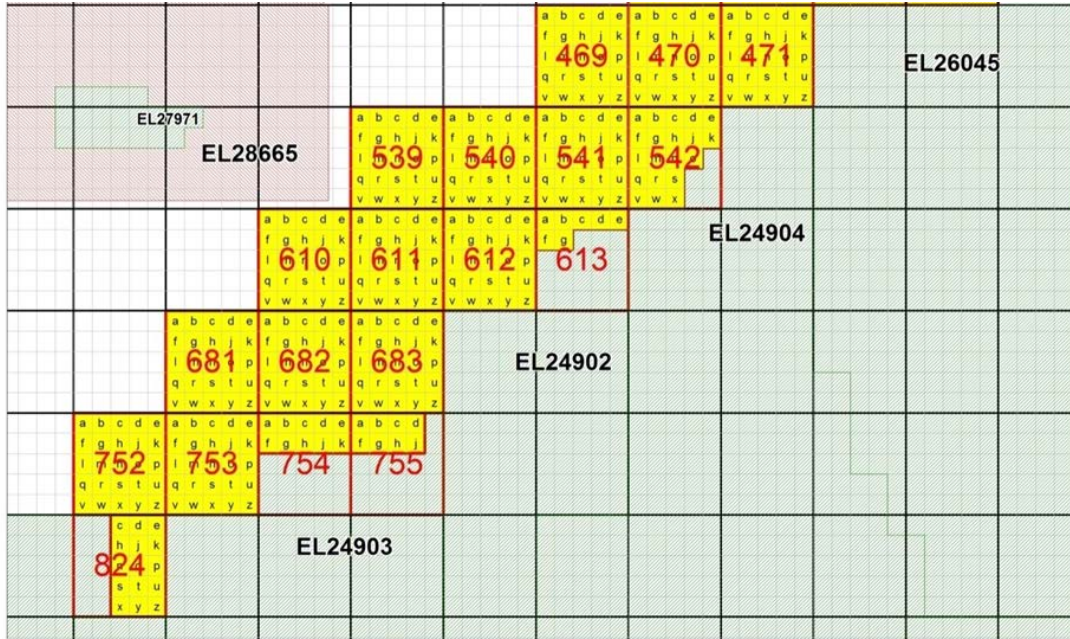


Figure 6–Blocks and sub-blocks of EL 28772 for relinquishment

Table 2 –Blocks and sub-blocks for relinquishment on EL 28772

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<b>TOTAL</b>			<b>410</b>



## **5.0 WORK CONDUCTED ON RELINQUISHED GROUND**

### **5.1 Year 1**

During the first year of tenure for EL 28772a comprehensive desktop study was completed on the acquisition, plotting, compilation and interpretation of exploration data available in the public domain. This work was undertaken by a combination of effort by Salva Resources Pty Ltd and Global Ore Discovery Pty Ltd.

### **5.2 Year 2**

Negotiations were conducted with Santos in order to establish a share agreement on the seismic data that was acquired by the gas explorer. After a protracted negotiation, an agreement was not reached and the data was not made available to QCI. No other activities were conducted on the tenement during the second year of tenure.

### **5.3 Year 3**

No activities have been conducted on the tenement during the third year of tenure.

## **6.0 CONCLUSIONS**

EL 28772 was assessed during the first year of tenure as holding limited potential for the presence of Purni Formation coal. This is mainly indicated by the presence of the basal Permian unit outcrops of the Crown Point Formation just outside the eastern boundary of the EL. Further to this, failure to gain access to the seismic data for the area was interpreted as an indication that there were limited coal resources identified in the area from seismic. This prompted the decision by QCI to relinquish all the sub-blocks in the tenement in early 2014.