

# **ANNUAL REPORT**

**Mineral Resources Tasmania  
Department of Infrastructure, Energy and Resources**

## **TITLE PAGE**

Licence No:	25/2008
Nature of Report:	Annual Report
Period Covered:	18 September 2010 to 18 September 2011
Name & Address of Licensee:	Tiger Coal Pty Ltd C/- Resource Generation Limited Level 12, Chifley Tower 2 Chifley Square Sydney NSW 2000
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Date of Report:	18 August 2011

## Abstract

Historical exploration data has been reviewed, recollected and then remodelled.

A prospective stratigraphic section for coal measure has been identified within the Jericho graben.

An 18 hole drill programme has been planned to test for coal measures in the three adjoining licences EL41/2008, EL25/2008 and EL26/2008.

Detailed field studies are planned identify suitable drill sites in EL25/2008.

Access availability and land owner notifications for proposed drill sites have not been completed to date.

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# 1 Introduction

## 1.1.1 Exploration rationale (objective) and geological setting

This area is being explored in conjunction with adjacent tenements 41/2008 and 26/2008. A major regional structure, the Jericho Trough, is present through the three licences and has demonstrated coal occurrence throughout the area.

The principal objective of exploration in the area is to develop a geological and geophysical model for coal resources within the near surface Permo-Triassic coal measures. Typically the Coal measures are associated with a characteristic lithic sandstone sequence that has been preserved from erosion by Jurassic dolerite capping. Continuity of the coal seams has been demonstrated by previous exploration through a combination of lithological, geophysical and coal quality correlation. The Jericho trough has a north to north-northwest trend and is disrupted by numerous northeast trending cross faults. The trough is believed to be a graben structure that extends for a minimum of 50 kilometres and varies from 1 - 5 kilometres wide. Indications are that coal seams are best developed within the graben structure.

Following the remodelling of historical exploration data, some of which is unreliable, an exploration programme to test the presence, structure and quality of shallow open cut coal is proposed.

## 1.1.2 Licence details

Tenement number:	EL 25/2008
Tenement name:	Melton Mowbray
Tenement location:	Dysart/Melton Mowbray/Jericho
Reporting period:	18 September 2010 – 18 September 2011
Tenement holder:	Tiger Coal Pty Ltd

### 1.1.3 Location

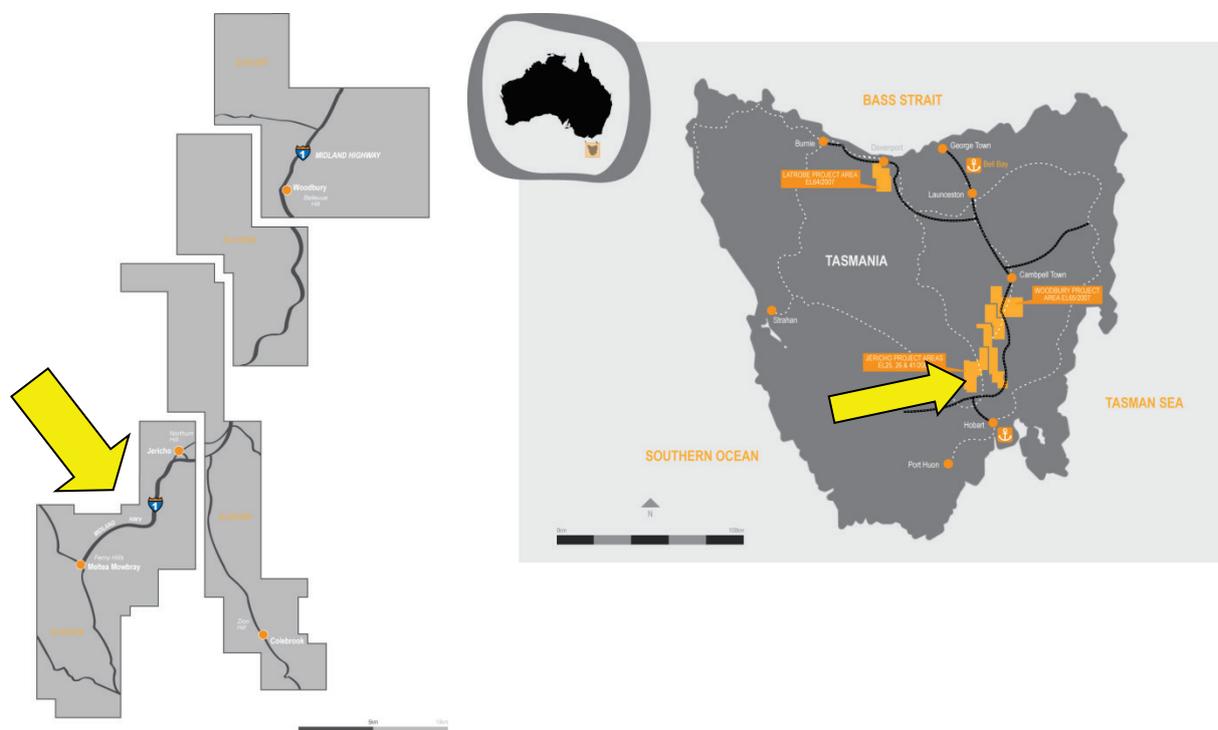


Figure 1. EL25/2008 Location Map

### 1.1.4 Tenure

Five years from 18 September 2008 to 18 September 2013

## 2 Review of previous work

### 2.1.1 Prior to current tenement

The Melton Mowbray area comprises parts of several previous EL areas originally held and explored by CRA in the early to mid 1980's. Titles which covered parts of the present title area included Parattah EL 18/82, Kempton EL 19/82 and Jericho EL 20/82. The current EL 25/2008 granted in this area has been designated as Melton Mowbray, being centred on that village, and covers an area of 203 square kilometres.

### 2.1.2 During current tenement

A previous evaluation of the regional geology was not able to confirm the extent that the Jericho Trough continues through the licence. Most of the licence is dominated by Jurassic dolerite and basalt which obscure the older underlying sedimentary sequence. In some areas the dolerite is intrusive and contact metamorphism is recorded in the Permo-Triassic sediments. An area in the southwest of the licence has been identified as containing Permo-Triassic sediments that may be an extension of the coal bearing sequence known from the adjoining York Plains area.

Two secondary graben structures have been identified immediately to the west of Melton Mowbray and Kempton. These are possibly truncated structures of somewhat limited extent. Their resource potential has not been appraised.

### **3 Exploration completed during the reporting period**

#### **3.1.1 Prospect-based exploration activities**

Coal occurrences have been identified within the Jericho graben by CRA who conducted a regional drilling programme in 1984. The exploration confirmed the graben extends some 50 kilometres north-south through the Midlands region and is from 1 – 5 km wide. The graben is bounded by steep sub-vertical flanking faults and is intersected by a number of secondary cross faults that trend northeast-southwest. However there is little confirmed data that the graben structure continues south from EL26/2008 into EL25/2008.

The data currently available comprises exploration data from the mid 1980's, data from historical water bores and geological data from the State geological mapping at 1:50,000 and 1:25,000 publishing in 1976. Some regional magnetic data is also available but is of limited use.

A regional stratigraphic drilling programme of 18 holes has been prepared to test the structure, quality and extent of shallow coal measure occurrences within the graben. The programme is aimed to evaluate all three licences EL41/228, EL25/2008 and EL26/2008. The locations of the holes are shown in Figure 2, Proposed Drill Holes. The holes are designed to intersect the "Sequence 1" strata of previous workers. This is the uppermost member of the Permo-Triassic stratum of the region and has been inferred to be the most prospective section for economic coal seam occurrence. Up to six seams are thought to be present. The holes are placed 2 - 3 kilometres apart in areas where there is believed to be continuity of seams over significant areas and potential exists to define economic resources.

Due to the unknown extent of the Permo-Triassic stratigraphy in EL25/2008 two holes have been proposed to test the stratigraphy in southwest of the licence. This area is thought to contain coal measures in two secondary graben structures that have been identified immediately to the west of Melton Mowbray and Kempton. These are possibly truncated structures of somewhat limited extent.

Availability of land access for the proposed hole locations has not been confirmed to date and the locations of some holes may have to be adjusted depending on access conditions and landowner activities at the time of drilling.

Figure 2

## **4 Discussion of results**

Studies of previous exploration and other data indicate the level of knowledge of the occurrence of coal measures in the licence is unreliable. Consequently it has been decided that the most useful approach is conduct a controlled stratigraphic drilling programme along the graben and extend information obtained into the interpretation and exploration of adjacent unknown areas.

Two holes proposed for the licence are located in the south west area of the licence.

## **5 Conclusions**

As reliable data on the presence of coal measures is not present, a regional stratigraphic exploration approach is required to test the stratigraphy of the Permo-Triassic sequence. Subject to obtaining adequate access a drilling program is to be undertaken in order to derive the viable presence of coal occurrences.

A significant number of landowners are present in the tenement and this will require considerable management to ensure ease of access and to minimize any negative sentiment toward exploration or subsequent activity.

## **6 Environment**

Generally the area comprises a variation of undulating to steep properties which vary in agricultural uses.

Economic conditions have been unfavourable and this is reflected in a general “run-down state” of infrastructure. Until recent rains, drought conditions have prevailed for a number of years.

The currently planned drilling program has been designed to result in minimal impact to the area and any disturbance to the land will be rehabilitated at the completion of drilling.

## 7 Expenditure

Expenditure to date has amounted to \$208,304 this being a pro-rata calculation for work conducted on all three Jericho tenements (\$65,965 during 2008/09 period, \$81,755 during 2009/10 period and \$60,584 during 2010/11 period excluding the September quarter which has not yet expired).

Further exploration will be undertaken following initial exploration which will assist in defining the presence and location of viable coal sequences. It is envisaged that Licence conditions will be met subject to initially achieving access and subsequent success of the first program. The budget for the exploration program is as follows:

<b>Jericho Exploration Programme</b>			
<b>Contractor</b>	<b>Activity</b>	<b>Time</b>	<b>Cost</b>
KMR	Drilling	14 weeks	270,577
Groundsearch Australia	Geophysical Logging	11 days	27,970
Peter Binney	Survey	3 days	3,600
KMR/Sub-contractor	Excavation Services	2 week	15,000
Marston	Geological Supervision	14 weeks	160,735
<b>Total</b>			<b>\$477,882</b>