

**MANTLE MINING**  
ASX: MNM & MNMOA

**DIRECTORS**

Mr Martin Blakeman  
Non-Executive Chairman

Mr Ian Kraemer  
Managing Director

Mr Peter Anderton  
Non-Executive Director

Mr Stephen de Belle  
Non-Executive Director

**COMPANY SECRETARY**

Mr Winton Willesee

**PRINCIPAL PLACE OF  
BUSINESS AND  
REGISTERED OFFICE**

Level 1, 2 Ross Place  
South Melbourne VIC 3205

**CONTACT DETAILS**

Website:  
www.mantlemining.com

Email:  
admin@mantlemining.com

ph: + 61 (3) 9602 4133  
fax: + 61 (3) 9670 6643

G.P.O. Box 2986  
Melbourne VIC 3001

**ASX Release**

**09 December 2010**

**Mantle Applies for Bacchus Marsh Tenements.**

**Mantle Mining Corporation Limited (ASX: MNM) the Company,** is pleased to advise that it has been granted priority status over three (3) additional applications for Coal Exploration Licences at the Company's 100% owned Bacchus Marsh Coal project in Victoria.

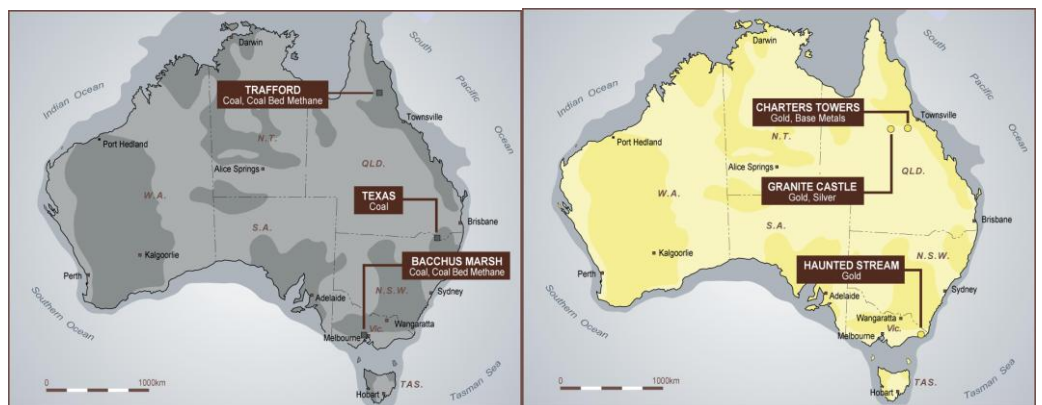
**Bacchus Marsh Coal Project Highlights:**

- EL's 5323, 5324 and 5325 are located within the Company's existing EL 5294 application and adjacent to ML 4701 (held by others). Addition of these ELs will consolidate remaining areas in EL 5294 under Mantle control. EL 5294 contains an exploration target<sup>4</sup> between 1 to 2 Billion tonnes of brown coal. (Figures 2, 3 and 4).
- Mantle executed a Memorandum of Understanding with Exergen Pty Ltd to develop Bacchus Marsh. Exergen's clean coal technology, Continuous Hydrothermal Dewatering, will deliver up to 40% emission reductions from modern power stations.
- Recent laboratory trials have reduced 47% moisture content coal to a 5% moisture content briquette. A bulk sample is being sourced for continuous pilot plant trials.

**Mantle's Pre-development Projects:**

- Granite Castle Gold: 79,000 oz gold & 1.5 million oz silver JORC Resource<sup>1</sup>,
- Charters Towers Gold: 125,000 oz gold JORC Resource<sup>2</sup>,
- Trafford Coal: 100 - 500 Million tonne Exploration Target<sup>3</sup>,
- Bacchus Marsh Coal: 1 - 2 Billion tonne Exploration Target<sup>4</sup>.

1, 2, 3 & 4: Mineral Resources, Exploration Targets, and Competent Persons Statements on page 5.



**Figure 1:** Mantle Mining's Coal Projects (LHS) and Gold Projects (RHS) Location Plan.

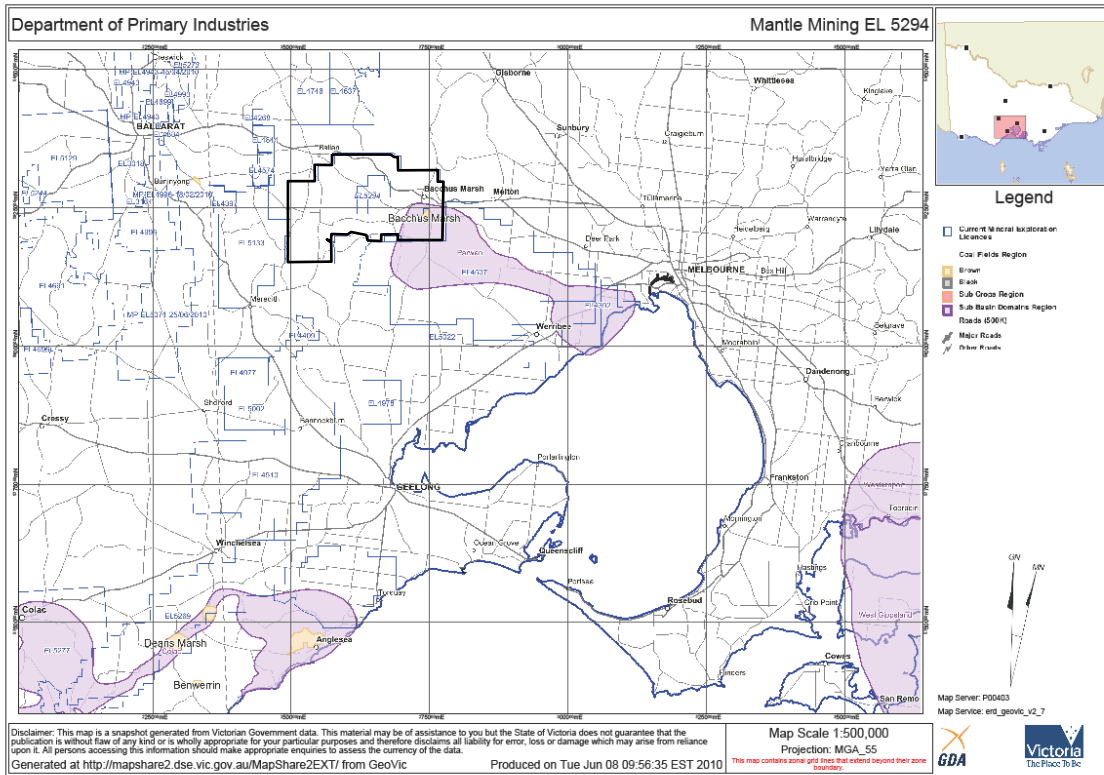


Figure 2: Mantle’s Bacchus Marsh EL 5294 with Victorian Coal Fields.

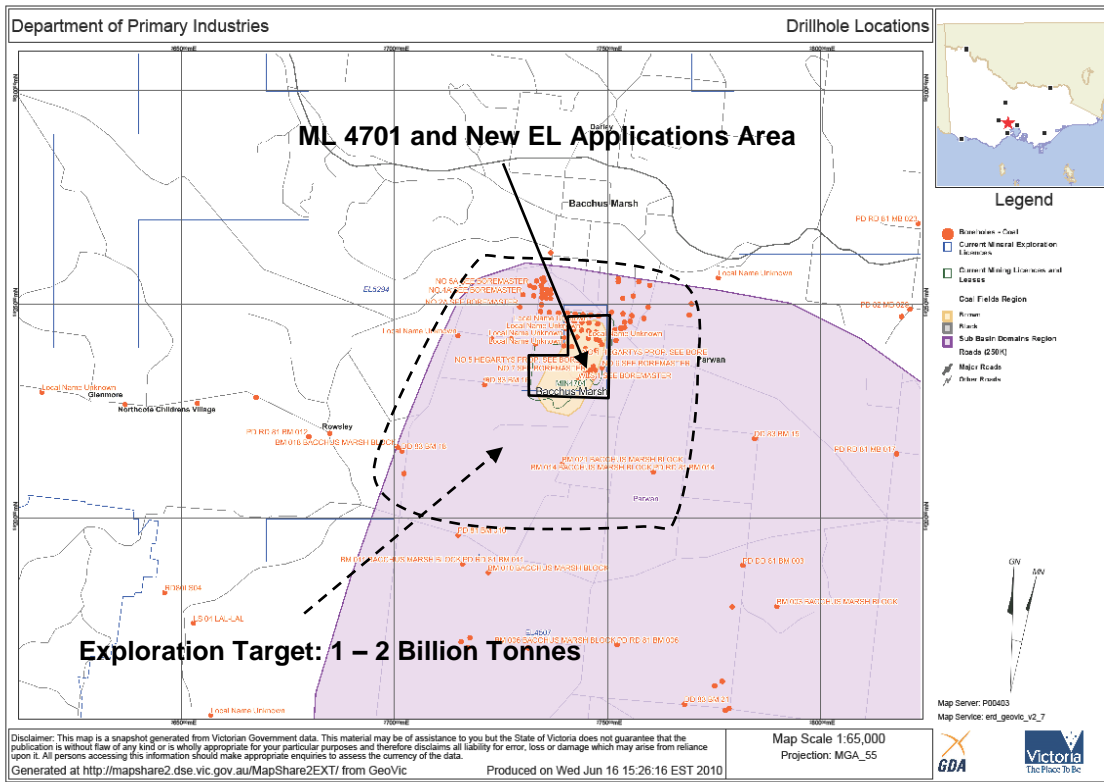
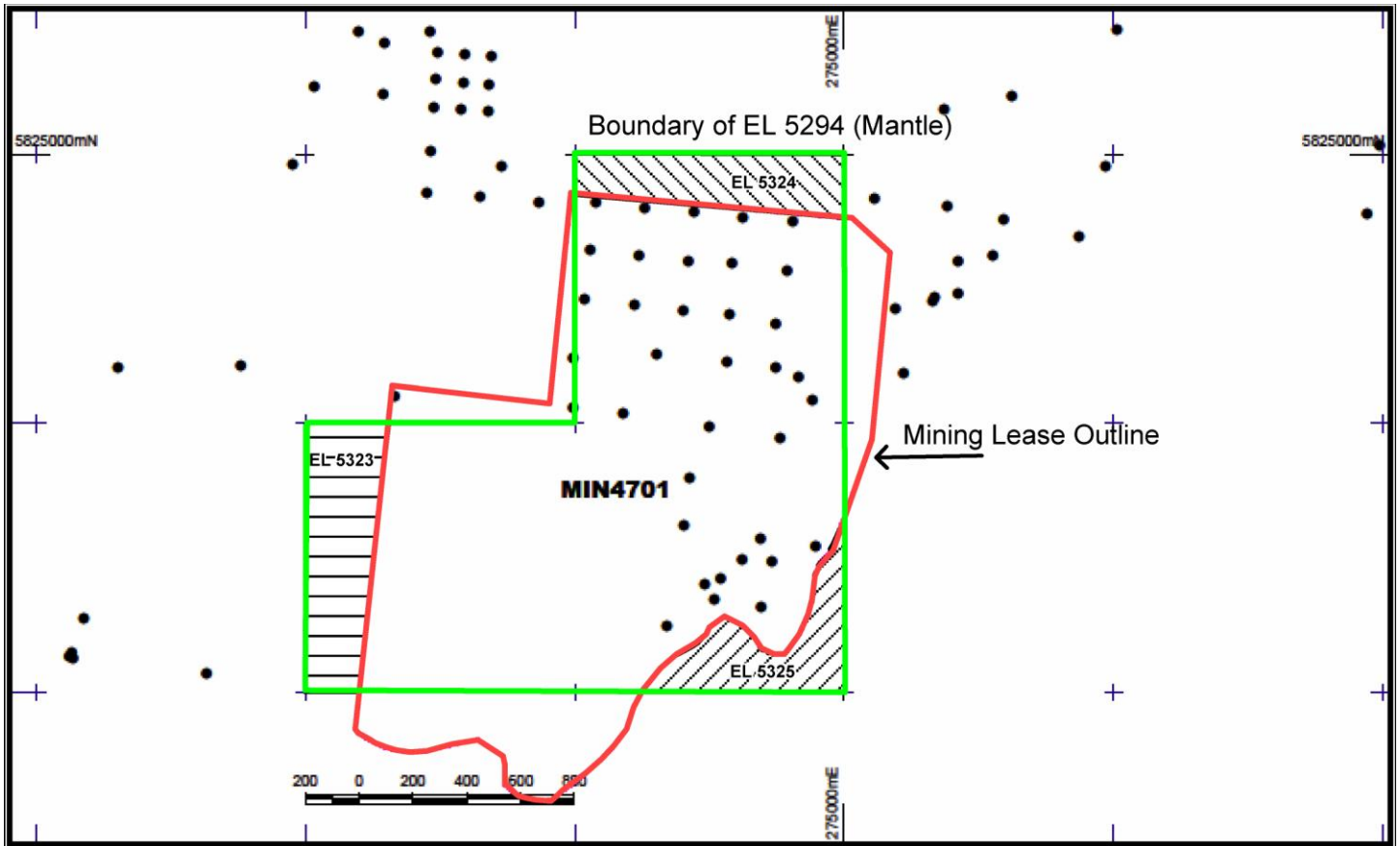


Figure 3: EL 5294 exploration target area with ML 4701 and new EL applications area.



**Figure 4:** ML 4701 and new ELs 5323, 5324 and 5325 application areas.

Although relatively small in relation to EL 5294, these three new EL areas will consolidate all remaining available areas within the known Bacchus Marsh historic coal deposit under Mantle control. In addition to removing any possibility of third parties staking claim to these areas, the approach will allow for optimal exploration and future mine planning.

For further information:

Ian Kraemer  
Mantle Mining  
0407 758 722

Media enquiries:

Doug Macdonald  
Capital Group  
0424 255 959

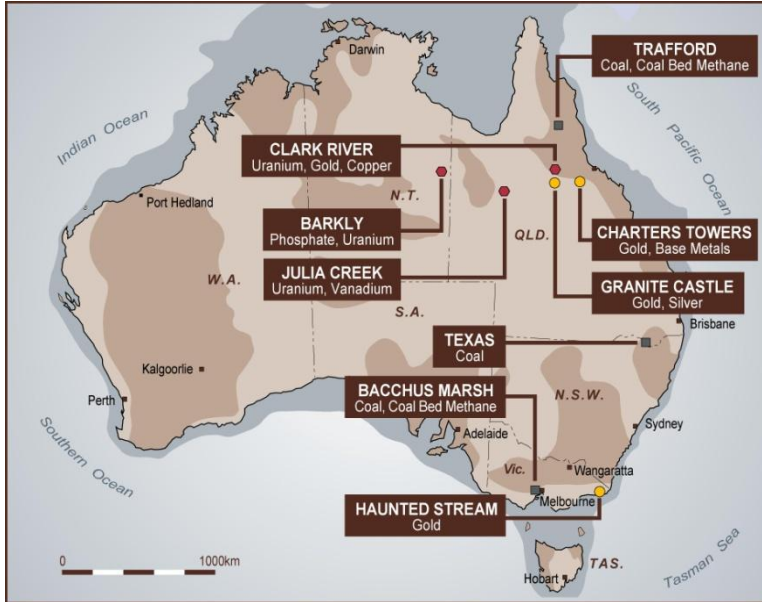
**COMPETENT PERSONS STATEMENT:**

*The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Ian Kraemer and Mr Stuart Moore, both Executives of Mantle Mining Corporation Ltd. Mr Kraemer is a Fellow, and Mr Moore is a Member, of the Australasian Institute of Mining and Metallurgy and both have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Kraemer (for Coal and Coal Bed Methane) and Mr Moore (for Base & Precious Metals, Phosphate and Uranium) consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.*





**MANTLE MINING CORPORATION LIMITED's COMPANY PROJECT PORTFOLIO:**



- Granite Castle Gold & Silver (QLD)
- Charters Towers Gold (QLD)
- Trafford Coal & CBM (QLD)
- Bacchus Marsh Coal & CBM (VIC)
- Haunted Stream Gold (VIC)
- Texas Coal (QLD)
- Barkly Phosphate (NT)
- Clarke River Uranium (QLD)
- Julia Creek Uranium (QLD)

The Granite Castle Gold & Silver Project area contains a JORC Compliant (Measured, Indicated and Inferred) gold and silver Resource<sup>1</sup>. Mineralisation occurs in a single 600m long shear. Over 6km of additional shears have been located, with drill holes and/or rock chip samples at similar grades to the JORC Compliant shear. The Company is currently undertaking detailed preparation work for drilling the next most prospective shears.

The Charters Towers Gold Project area contains the Great Britain JORC Compliant Inferred gold Resource<sup>2</sup> as well as a number of historic mines, including Day Dawn West, immediately west of Citigold's (ASX: CTO) proposed "City" mining area. The Gromac/Puzzler area is prospective for deposits of copper, gold, silver and molybdenum.

The Trafford Coal & CBM Project area contains a large Exploration Target<sup>3</sup> of black coal. The Company is negotiating with the traditional custodians of Mt Mulligan towards an Indigenous Land Use Agreement (ILUA) and has commenced proceedings in QLD's Supreme Court to enforce an agreement for the assignment of the tenements.

The Bacchus Marsh Coal & CBM Project area contains a large Exploration Target<sup>4</sup> of brown coal. The Company has executed a non-binding MOU with Exergen Pty Ltd to develop the deposit utilising Exergen's patented coal drying technology to upgrade the coal for export. Exergen's partners include Tata Power, Itochu, Thiess and Sedgman.

The Haunted Stream Gold Project area is prospective for gold/copper including many historical, high-grade, gold mines along the Haunted Stream fault corridor. Anomaly 4 is a major target for possible deep vein gold or porphyry copper-gold mineralisation. A deep drilling program has intersected multiple shear zones with visible base metals.

The Texas Coal Project area is prospective for both thermal and coking coals of a similar quality to Surat and Bowen Basin coals. The tenements are adjacent to the NSW border and along strike from known coking coal deposits and exciting new thermal coal drilling intercepts located variously to the south and north.

The Barkly Phosphate Project area sits in the Georgina Basin strategically located between Minemaker's (ASX: MAK) Wonarah deposit and Phosphate Australia's (ASX: POZ) Highland Plains deposit. The Company has completed broad spaced scout drilling over its large tenement holdings.

The Clarke River Project area is prospective for uranium, base and precious metals. The Company is planning for preliminary scout reconnaissance to be followed by targeted drilling. The Julia Creek Project area has been sufficiently tested and is in the process of being relinquished.

1, 2, 3 & 4: Mineral Resources, Exploration Targets and Competent Persons Statements on page 5.



## **MINERAL RESOURCES, EXPLORATION TARGETS and COMPETENT PERSONS STATEMENTS:**

### **1. Granite Castle Gold & Silver Project:**

<b>Granite Castle Gold and Silver Resource Estimate @ 0.2 g/t Au lower cut-off</b>					
<b>Class</b>	<b>Tonnes</b>	<b>Au g/t</b>	<b>Au oz</b>	<b>Ag g/t</b>	<b>Ag oz</b>
Measured	122,614	3.99	15,727	53.3	209,941
Indicated	264,021	3.44	29,198	67.6	574,182
Inferred	460,443	2.32	34,375	50.4	746,680
<b>Total</b>	<b>847,078</b>	<b>2.91</b>	<b>79,301</b>	<b>56.2</b>	<b>1,530,803</b>

<b>Granite Castle Gold and Silver Exploration Target</b>			
<b>Target</b>	<b>Tonnes</b>	<b>Au g/t</b>	<b>Ag g/t</b>
Below Granite Castle JORC Resource	300,000 – 400,000	2.5 – 3.5	55 - 70
<b>Total</b>	<b>300,000 – 400,000</b>	<b>2.5 – 3.5</b>	<b>55 - 70</b>

Statements in this report relating to the Granite Castle Gold and Silver Mineral Resource are based on a report provided to the Company by Hellman and Schofield Pty Ltd, dated 16<sup>th</sup> May 2008 and first released to the ASX by Mantle on 28<sup>th</sup> May 2008: "The information in this report that relates to Mineral Resources is based on information compiled by Dr William Yeo, a full time employee of Hellman and Schofield Pty Ltd. Dr Yeo is a Member of the Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Yeo consents to the inclusion of the matters based on his information in the form and context in which it appears in this report." The report also covered mineralised structures below the resource and quantified a contained exploration potential (Exploration Target) within those structures. Note that the potential quantity and grade of the Exploration Target is conceptual in nature, that there has been insufficient exploration to define a Mineral Resource, and that it is uncertain if further exploration will result in the determination of a Mineral Resource

### **2. Charters Towers Gold Project:**

<b>Great Britain Gold Resource Estimate @ 0.5 g/t Au lower cut-off</b>				
<b>Class</b>	<b>Tonnes</b>	<b>Au g/t</b>	<b>Au oz</b>	
Inferred	2,128,000	1.8	125,000	
<b>Total</b>	<b>2,128,000</b>	<b>1.8</b>	<b>125,000</b>	

Statements in this report relating to the Great Britain Gold Mineral Resource are based on a report provided to Glengarry Resources Ltd by Resource Evaluations Pty Ltd dated August 2004 and independently confirmed by Ravensgate Minerals Industry Consultants and included in Mantle's 2006 Prospectus as released to the ASX by Mantle on 2<sup>nd</sup> October 2006. The Resource Evaluations Pty Ltd report was compiled by Mr Mark Drabble, a Member of the Australasian Institute of Mining and Metallurgy and Mr Gerry Fahey, also a Member of the Australasian Institute of Mining and Metallurgy: "This report was completed under the overall supervision and direction of Gerry Fahey and the 3D modelling and Mineral Resource estimation was carried out by Mark Drabble both of whom are Competent Persons as defined by the Australasian Code for the Reporting of Mineral Resources and Ore reserves (JORC Code) 1999 edition and who consent to the inclusion in this report of the matters based on his information in the form and context in which it appears."

### **3. Trafford Coal Project:**

<b>Mount Mulligan Black Coal Exploration Target</b>						
<b>Target</b>	<b>Tonnes</b>	<b>TM %</b>	<b>Ash %</b>	<b>VM %</b>	<b>FC %</b>	<b>CV MJ/kg</b>
Mulligan Sub-basin	100 Million – 500 Million	2 - 3	11 - 18	28 - 34	50 - 70	26 - 28
<b>Total</b>	<b>100 Million – 500 Million</b>	<b>2 – 3</b>	<b>11 - 18</b>	<b>28 - 34</b>	<b>50 - 70</b>	<b>26 - 28</b>

Statements in this report relating to the Mt Mulligan Coal Exploration Target are based on data provided to the Company by the vendors of the project, as first released in a report to the ASX by Mantle on 25<sup>th</sup> September 2007: "Under the Guidelines for the Estimation and Reporting of Australian Black Coal Deposits (1999), Mount Mulligan had an identified Class 1 deposit of 144m tonnes and an identified Class 2 deposit of 507m tonnes". Upon review of the geological data in consultation with Mantle's consultant geologists, it was considered appropriate that the range of the Exploration Target be considered as 100m to 500m tonnes. Information in this report that relates to Exploration Results is based on information compiled by Mr Ian Kraemer an Executive of Mantle Mining Corporation Ltd. Mr Kraemer is a Fellow of the Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Kraemer consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. In addition, Mr Kraemer notes that the potential quantity and grade of the Black Coal Exploration Target is conceptual in nature, that there has been insufficient exploration to define a Mineral Resource, and that it is uncertain if further exploration will result in the determination of a Mineral Resource.

### **4. Bacchus Marsh Coal Project:**

<b>Bacchus Marsh Brown Coal Exploration Target</b>					
<b>Target</b>	<b>Tonnes</b>	<b>TM %</b>	<b>Ash %</b>		
Parwin Sub-basin	1 Billion – 2 Billion	35 – 61	4 - 11		
<b>Total</b>	<b>1 Billion – 2 Billion</b>	<b>35 – 61</b>	<b>4 - 11</b>		

Statements in this report relating to the Bacchus Marsh Brown Coal Exploration Target are based on preliminary review of existing data and drill hole logs as first released in a report to the ASX by Mantle on 17<sup>th</sup> June 2010: "Information in this report that relates to Exploration Results is based on information compiled by Mr Ian Kraemer an Executive of Mantle Mining Corporation Ltd. Mr Kraemer is a Fellow of the Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Kraemer consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. In addition, Mr Kraemer notes that the potential quantity and grade of the Brown Coal Exploration Target is conceptual in nature, that there has been insufficient exploration to define a Mineral Resource, and that it is uncertain if further exploration will result in the determination of a Mineral Resource."