



## **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**

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### **CONTACT DETAILS**

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## **ASX Release**

**27 April 2012**

## **March 2012 Quarterly Activities Report**

**Mantle Mining Corporation Limited (ASX: MNM) "Mantle"**, is pleased to provide an update on its activities for the quarter ended 31 March 2012:

### **Key Highlights:**

#### **Bacchus Marsh Coal Project (VIC):**

**Contains a 1-2 Billion tonne brown coal Exploration Target<sup>4</sup> (see last page).**

- Undertaking a 15 hole drilling program designed to report an Inferred Resource in accordance with the principles and guidelines of the JORC Code.
- 12 holes are now complete with coal thickness continuing to exceed prediction.
- Drilled new hole MBM 011a as a water monitoring bore. Currently drilling MBM 012.
- Draft Joint Venture Agreement being actively progressed with Exergen Pty Ltd.

#### **Trafford (Mt Mulligan) Coal Project (QLD):**

**Contains a 100-500 Million tonne black coal Exploration Target<sup>3</sup> (see last page).**

- Pre-trial settlement reached with Calcifer Industrial Minerals Pty Ltd.
- Court orders made reflecting complete success for Mantle in the proceedings.
- Became aware of considerations to change the land use classification of Mt Mulligan.
- Working with traditional custodians and government to progress the project.

#### **Other Projects:**

- Aerial survey (magnetics & radiometrics) flown at the Granite Castle gold project area.
- Fieldwork was ongoing at the Charters Towers and Haunted Stream gold projects.
- Desktop studies continued at the Texas and Latrobe Valley coal projects.
- The Ashford base and precious metals project tenements were granted.
- Entered into an Option and Sale Agreement with Mineore Pty Ltd in relation to the Barkly phosphate project tenements.

#### **Corporate:**

- Raised \$1,350,000 by way of a placement of 10,000,000 shares at 13.5 cents per share along with one free attaching listed option (7.5c, 1 Dec 2013) for every two shares allotted under the placement, with the assistance of Cygnet Capital Pty Ltd.

#### **Further information:**

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Mantle Mining  
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#### **Media enquiries:**

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## Bacchus Marsh Coal Project (VIC):

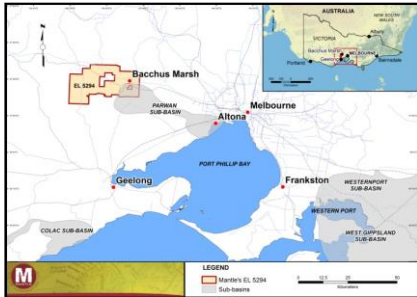


Figure 1: Project location plan.



Figure 2: Drilling operation.

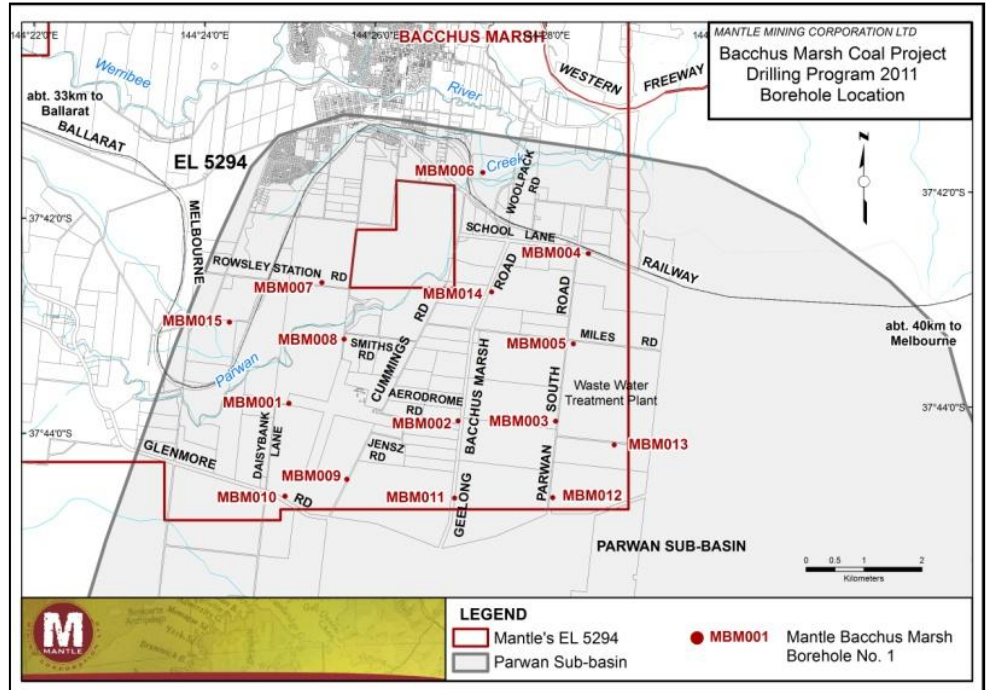


Figure 3: Drill hole location plan.

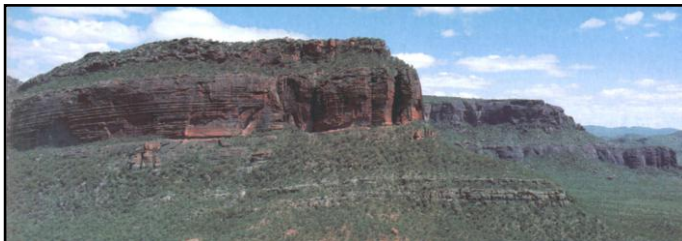
The Bacchus Marsh Brown Coal Project is located approximately 50km west of Melbourne and a similar distance north of the port of Geelong. Based on a review of historic drilling, Mantle is of the view that EL 5294 contains an Exploration Target<sup>4</sup> of between 1 and 2 billion tonnes of brown coal. The company is progressing a 15 hole drilling program designed to report an Inferred Resource in accordance with the principles and guidelines of the JORC Code.

Drill Hole	Depth to seam (m)	Seam Thickness (m)		Proximate Analysis (% dry basis)					Calorific Value (MJ/Kg)	
		Predicted	Actual	Moisture (%)	Ash	Volatile Matter	Fixed Carbon	Sulphur (% db)	Net Wet	Gross Dry
MBM 001	86.3	26.0	5.6	55.2	14.4	45.2	40.5	4.0	8.6	23.1
MBM 002	70.0	35.0	54.8	58.6	9.6	48.8	41.6	4.0	8.5	24.8
MBM 003	75.4	31.0	48.4	57.2	9.4	48.9	41.6	4.3	9.2	25.4
MBM 004	47.9	24.0	36.5	59.4	11.7	48.5	39.8	4.5	8.1	24.2
MBM 014	47.0	35.0	48.0	60.4	11.3	47.9	40.1	3.3	8.1	25.0
MBM 015	85.6	17.7	18.2	57.7	10.5	47.9	41.6	2.4	8.7	24.6
MBM 007	69.7	24.0	26.9	58.2	12.4	46.9	40.7	2.5	8.4	24.2
MBM 008	59.9	32.0	43.6	57.7	11.5	48.2	40.0	4.1	8.7	24.5
MBM 010	99.2	22.3	40.1	Analytical Results Pending						
MBM 009	85.0	29.0	48.5	Analytical Results Pending						
MBM 006	9.4	24.0	23.2	Analytical Results Pending						
MBM 005	61.0	31.0	45.2	Analytical Results Pending						

**Table 1:** Drilling program results to date (Note: Roof and floor cut-offs are currently not defined. Above figures are weighted averages of not less than 93% of logged seam thickness).



### **Trafford (Mt. Mulligan) Coal & CBM Project (QLD):**



**Figure 4:** Mount Mulligan mesa.



**Figure 5:** Historic mine.



**Figure 6:** Historic buildings.

Mantle's Trafford Black Coal and CBM Project is located approximately 100km west of Cairns in north Queensland. The project area contains the Mt. Mulligan black coal deposit and historic underground mines and Mantle is of the view that the area contains an Exploration Target<sup>3</sup> of between 100 and 500 million tonnes of black coal.

Mantle acquired the tenements in 2007 and 2008 and, due to the high level of cultural significance of the area, proceeded to negotiate an Indigenous Land Use Agreement (ILUA) with the traditional custodians. However a dispute arose with the vendor, Calcifer Industrial Minerals Pty Ltd (Calcifer) that delayed progress.

Mantle subsidiaries Trafford Coal Pty Ltd and Mt Mulligan Coal Pty Ltd began proceedings against Calcifer in the Supreme Court of Queensland to enforce the agreements for assignment of the Mt. Mulligan tenements and a trial date was set down for the 5<sup>th</sup> to 8<sup>th</sup> March 2012.

On 5<sup>th</sup> March 2012, Mantle announced that it had reached a pre trial settlement with Calcifer. The parties agreed to the Supreme Court making a number of orders in resolution of the dispute. Pursuant to those orders:

- Calcifer shall take all steps required to perfect the assignment of EPC 772 and ATP 718 (once granted) to Trafford Coal Pty Ltd and Mt Mulligan Coal Pty Ltd,
- Calcifer shall execute the Indigenous Land Use Agreement (ILUA) in the form as already agreed between Mantle and the traditional custodians, and
- Calcifer shall pay to Mantle its standard costs of proceedings.

These orders reflect complete success for Mantle's subsidiaries on their claims in the proceedings. During discussions over the ensuing tenement transfers with the relevant Queensland Government Departments, it came to Mantle's attention that:

- Mt Mulligan had been designated Sterile Land with a proposal to change its land use status to National Park,
- Up to this point, Mantle had been unable to meaningfully engage with the relevant Government Departments regarding the tenements because Mantle was not recorded as the tenement holder.

Since issuance of the Court orders, Mantle has been working with the traditional custodians towards scheduling an ILUA signing (Authorisation) ceremony and engaging with the relevant Government Departments towards the most appropriate strategy to progress the project. Positive discussions have been held in both instances and are ongoing.

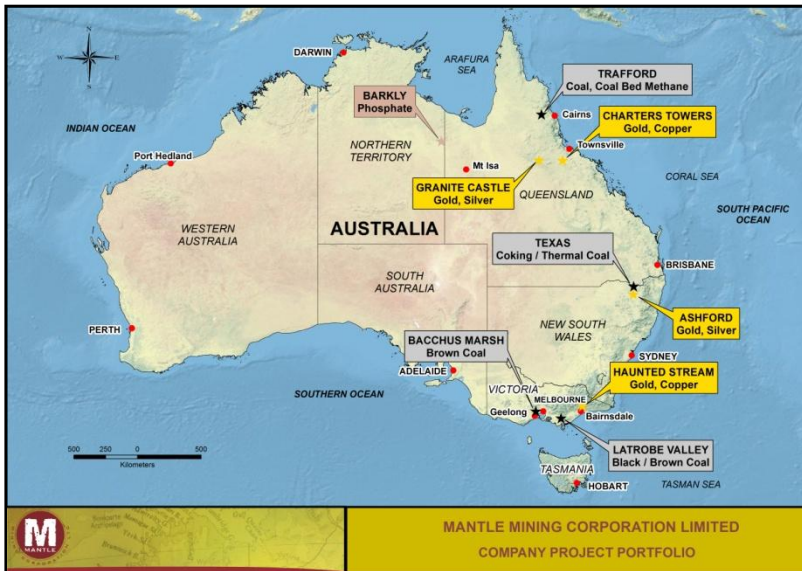
### **COMPETENT PERSONS STATEMENT:**

*The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Callum Lamont and Mr Stuart Moore, both Executives of Mantle Mining Corporation Ltd. Mr Lamont and Mr Moore are both Members 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 Lamont (for Coal) and Mr Moore (for Minerals) consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.*

TENEMENT SCHEDULE							
Number	Project	Name	Grant Date	Period (yrs)	Expiry Date	Area	Interest (%)
<b>Queensland</b>							
						sub-blocks	
EPM 14388	Charters Towers	Charters Towers	24/02/2005	5 + 5	23/02/2015	29	100
EPM 14179 <sup>1</sup>	Granite Castle	Range Creek	25/11/2004	5 + 3	24/11/2012	6	100
EPM 15527	Granite Castle	Oaky Creek	30/11/2007	5	29/11/2012	48	100
EPM 19334	Granite Castle	Granite Castle	Applic			100	100
EPC 772 <sup>2</sup>	Trafford	Mount Mulligan	05/12/2002	3 + 5 + 3	Renewal	72	100
ATP 718 <sup>2</sup>	Trafford	Mount Mulligan	Applic			150	100
EPC 2190	Texas	Texas	21/01/2011	5	20/01/2016	300	100
EPC 2192	Texas	Mt Gunyan	25/01/2011	5	24/01/2016	188	100
<b>Victoria</b>							
						grat-sects	
EL 3576	Haunted Stream	Haunted Stream	21/10/1994	annual	20/10/2012	66	100
EL 4784	Haunted Stream	Mount Baldhead	25/01/2006	5 + 2	24/01/2013	87	100
EL 4785	Haunted Stream	Mount Nugong	Applic			179	100
EL 4786	Haunted Stream	Mount Elizabeth	Applic			495	100
EL 4819	Haunted Stream	Buchan East	Applic			389	100
MIN 5505	Haunted Stream	Dogtown	20/08/2010	2	19/08/2012	0.9Ha	100
EL 5294 <sup>3</sup>	Bacchus Marsh	Bacchus Marsh	23/03/2011	5	22/03/2016	388	100
EL 5323 <sup>3</sup>	Bacchus Marsh	Bacchus Marsh	10/08/2011	2	9/08/2013	1	100
EL 5336	Latrobe Valley	Jeeralang	Applic			368	100
EL 5337	Latrobe Valley	Thorpdale	20/04/2011	5	19/04/2016	198	100
EL 5338	Latrobe Valley	Baromi	Applic			3	100
<b>Northern Territory</b>							
						blocks	
EL 26018	Barkly	Mittiebah	05/12/2007	6	04/12/2013	124	100
EL 26019	Barkly	Mitchiebo	05/12/2007	6	04/12/2013	70	100
EL 27035	Barkly	Carrara Bore	01/05/2009	6	30/04/2015	78	100
EL 27037	Barkly	Boomerang Creek	07/10/2009	6	06/10/2015	29	100
<b>New South Wales</b>							
						Units	
EL 7892	Ashford	Atholwood	6/02/2012	3	6/02/2015	89	100
EL 7893	Ashford	Yetman	6/02/2012	3	6/02/2015	84	100
EL 7894	Ashford	Bonshaw	6/02/2012	3	6/02/2015	96	100
<ol style="list-style-type: none"> <li>Held by Zulu Gold Pty Ltd which is a 100% owned subsidiary of Mantle.</li> <li>Held by Calcifer Industrial Minerals Pty Ltd however Mantle holds 100% beneficial interest via its 100% owned subsidiaries: Trafford Coal Pty Ltd (87.5% beneficial interest) and Mt Mulligan Coal Pty Ltd (12.5% beneficial interest).</li> <li>Subject to a Pre JVA with Exergen Pty Ltd whereby the parties intend to form a 50/50% Joint Venture.</li> </ol>							



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



- ★ Granite Castle Gold & Silver (QLD)
- ★ Charters Towers Gold & Copper (QLD)
- ★ Haunted Stream Gold & Copper (VIC)
- ★ Ashford Gold & Silver (NSW)
- ★ Trafford Coal & Coal Bed Methane (QLD)
- ★ Latrobe Valley Black & Brown Coal (VIC)
- ★ Bacchus Marsh Brown Coal (VIC)
- ★ Texas Black Coal (QLD)
- ★ Barkly Phosphate (NT)

### QLD Gold Projects

The **Granite Castle** Project area contains a JORC Compliant (Measured, Indicated and Inferred) gold and silver Resource<sup>1</sup>. Mineralisation occurs in a 600m long portion of a single shear. Over 14km of additional shears have been located, many with drill holes and/or rock chip samples at similar grades to the JORC Compliant shear. The **Charters Towers** 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 along strike of Citigold's (ASX: CTO) proposed "City" mining area. The Gromac/Puzzler area is prospective for deposits of copper, gold, silver and molybdenum.

### VIC Gold Projects

The **Haunted Stream** Project area is prospective for gold and copper including many historical, high-grade, gold mines along the Haunted Stream fault corridor. Deep drilling at centrally located Anomaly 4, a major target for possible deep vein gold or porphyry copper-gold mineralisation, intersected multiple shear zones with visible base metals. Three additional tenements remain to be granted pending finalisation of a Native Title access agreement.

### NSW Gold Projects

The **Ashford** Project area is prospective for precious and base metals and a number of other minerals. The company has been granted three tenements for an initial three year period and is currently undertaking a detailed study of historical mining activity and regional prospectivity. The area represents Mantle's first work in NSW, a state where the company believes future access for mineral exploration will be expanded.

### QLD Coal Projects

The **Trafford** Project area contains a large Exploration Target<sup>3</sup> of black coal. Mantle is negotiating with the traditional custodians of Mt Mulligan towards an Indigenous Land Use Agreement (ILUA) and has recently reached a pre trial settlement to enforce an agreement for assignment of the tenements from the prior tenement holders. The **Texas** Project area is prospective for thermal and coking coals of similar quality to Surat and Bowen Basin coals. The tenements are along strike from known coking coal deposits and thermal coal drill intercepts located to the south and north.

### VIC Coal Projects

The **Bacchus Marsh** Project area contains a large Exploration Target<sup>4</sup> of brown coal surrounding the Maddingley mine. Mantle executed a Pre-JVA with Exergen Pty Ltd to develop the deposit utilising Exergen's patented Continuous Hydro-Thermal Dewatering (CHTD) technology. Exergen's partners include Tata Power, Itochu, Thiess and Sedgman. The **Latrobe Valley** Project area is prospective for both black and brown coal deposits including many historical mines within the Gippsland Basin. The tenements immediately about the main Latrobe Valley depression. There is a high level of prospectivity that the historic Wonthaggi Black coal seams exist at depth within the project area.

### NT Phosphate Project

The **Barkly** Project area sits in the Georgina Basin between Minemaker's (ASX: MAK) Wonarah deposit and Phosphate Australia's (ASX: POZ) Highland Plains deposit. Historic phosphate rock intercepts exist within the tenements and Mantle is undertaking a series of annual drilling programs to more closely define the potential for covered deposits.

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

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

Granite Castle Gold and Silver Resource Estimate @ 0.2 g/t Au lower cut-off					
Class	Tonnes	Au g/t	Au oz	Ag g/t	Ag oz
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>

Granite Castle Gold and Silver Exploration Target			
Target	Tonnes	Au g/t	Ag g/t
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:**

Great Britain Gold Resource Estimate @ 0.5 g/t Au lower cut-off				
Class	Tonnes	Au g/t	Au oz	
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:**

Mount Mulligan Black Coal Exploration Target						
Target	Tonnes	TM %	Ash %	VM %	FC %	CV MJ/kg
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:**

Bacchus Marsh Brown Coal Exploration Target					
Target	Tonnes	TM %	Ash %		
Parwan 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."