



ASX Release

28 February 2013

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ASX: MNM & MNMOA

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High Grade Gold Confirmed at Charters Towers

Mantle Mining Corporation Limited (ASX: MNM) "Mantle", is pleased to advise that recent field exploration has uncovered a very high grade (215 g/t = 6.9 oz/t) 1.45kg rock chip sample, centrally located within a historically high grade prospect at its Charters Towers Gold Project in Queensland:

Highlights:

- The Balfes Creek prospect is located on the southern end of a major magnetic, geologic and structural corridor to the east of the main Charters Towers Goldfield:
 - In addition to 215 g/t gold, the rock chip sample returned 59 g/t silver, 3.25% lead, 22.8% iron with minor copper and zinc.
 - The sample was taken from an outcropping breccia, located within an area previously drilled with the following excellent results;
 - 9m @ 3.0g/t gold from 12m in hole 96PZRC013,
 - 6m @ 1.24g/t gold from 14m in hole 96PZRC025,
 - 6m @ 8.0g/t gold from 3m in hole 96PZRC032,
 - 7m @ 18.3g/t gold from 2m in hole 97PZB064.
 - This drilling is coincident with a magnetic high, elevated soil sampling geochemistry, a structural corridor and a specific geologic unit, however the precise collar locations of these historic holes are yet to be determined.
- Notably, the corridor also contains two other key prospects:
 - The Gromac prospect where prior drilling intersected what appears to be the margin of a molybdenum copper porphyry system, intersecting widespread mineralisation from 77m to 148m at the end of one drill hole.
 - The Puzzler gold pit is an historic open cut that has recently reverted back into Mantle's tenement. The area is prospective for gold both below the pit and along strike.
- Company geologists are developing a geophysics survey and drilling program targeting all three of the Balfes Creek, Gromac and Puzzler prospects as well as the Great Britain JORC Compliant Inferred gold Resource which is located to the west of Charters Towers.

Further information:

Ian Kraemer
Managing Director
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Charters Towers Gold Project (QLD)

The Charters Towers Gold Project is located around the township of Charters Towers in north Queensland. Mantle’s tenement (EPM 14388) contains two main project areas; Great Britain and Gromac/Puzzler.

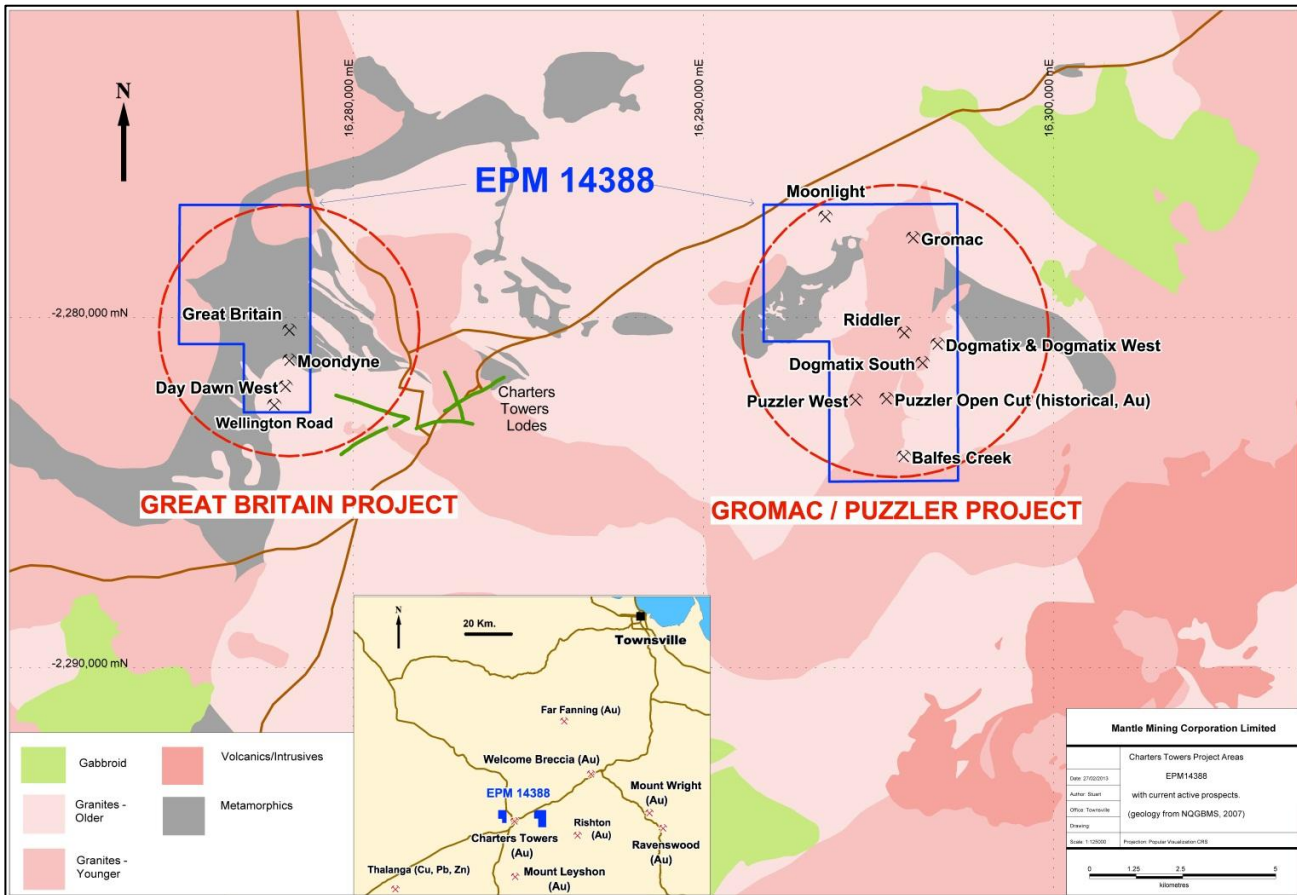
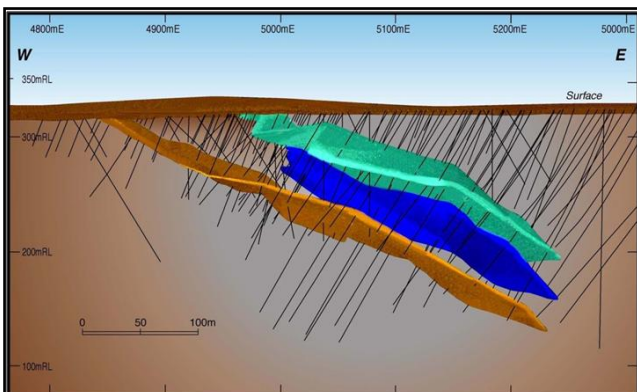


Figure 1: EPM 14388 location with historic mines on surface geology.

The Great Britain Project area contains the historic Great Britain, Moondyne, Day Dawn West and Wellington Road mines. These mines lie immediately to the west of the main Day Dawn reef which is the most westerly of the five major historically mined reefs at Charters Towers. These historic reefs are currently the subject of evaluation by Citigold (ASX: CTO) for major underground mine redevelopment. Great Britain contains a JORC Compliant Inferred Gold Resource².



The geological model for the Great Britain JORC Resource is relatively simple with mineralisation hosted in three shallowly dipping lenses that sub-crop just below the surface.

Mantle drilled an additional 51 holes in the deposit area, with the aim being to further define the deposit by testing for possible extensions and closing off gaps to the NW and SE thereby enabling refinement of the lateral and down dip extents.

The drilling appears to have added incrementally to the overall extent of the alteration envelope and contained mineralisation.

Figure 2: Great Britain geologic model in section view.

The Gromac/Puzzler area is prospective for bulk tonnage disseminated deposits of gold, silver, molybdenum and copper.

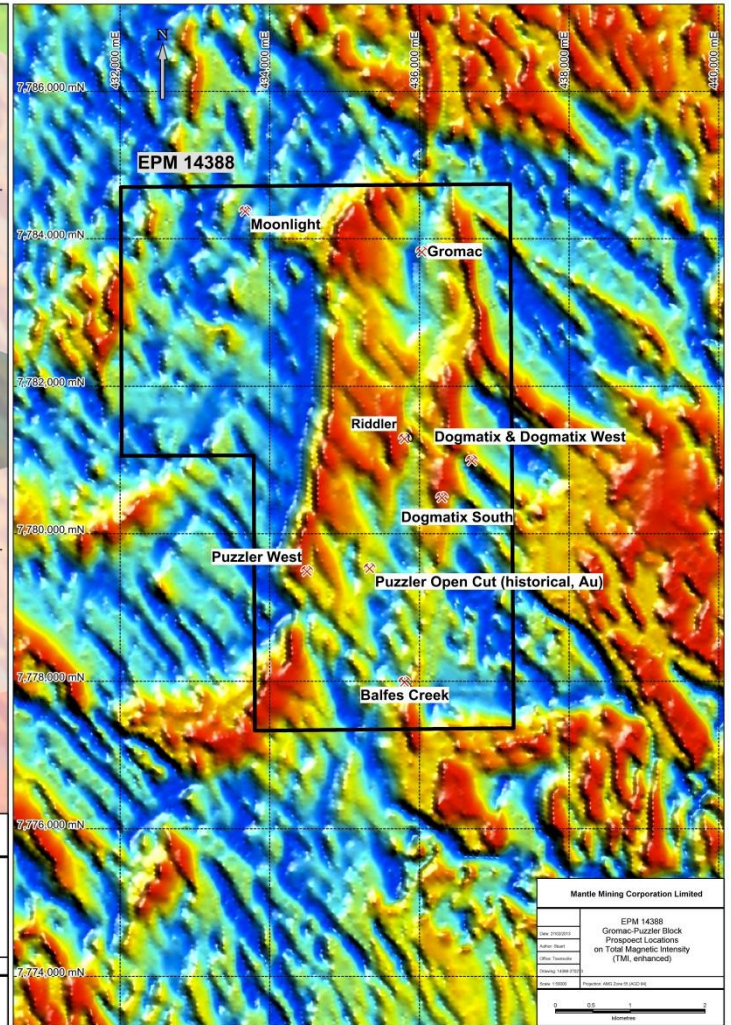
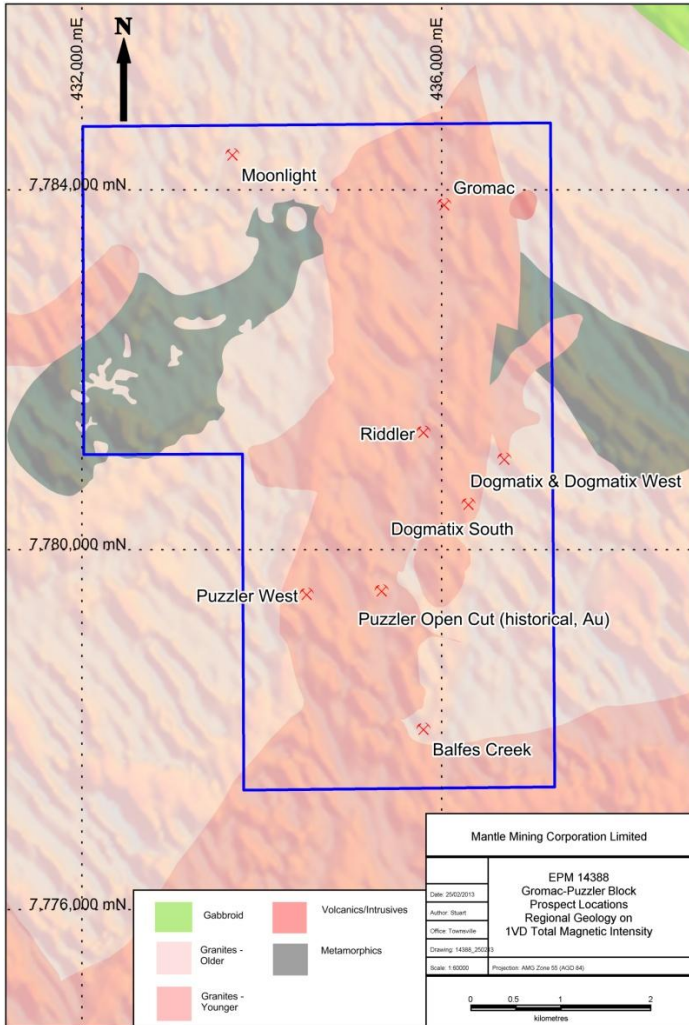


Figure 3: Surface geology on 1-VD aerial magnetics.

Figure 4: Gromac/Puzzler on TMI aerial magnetics.



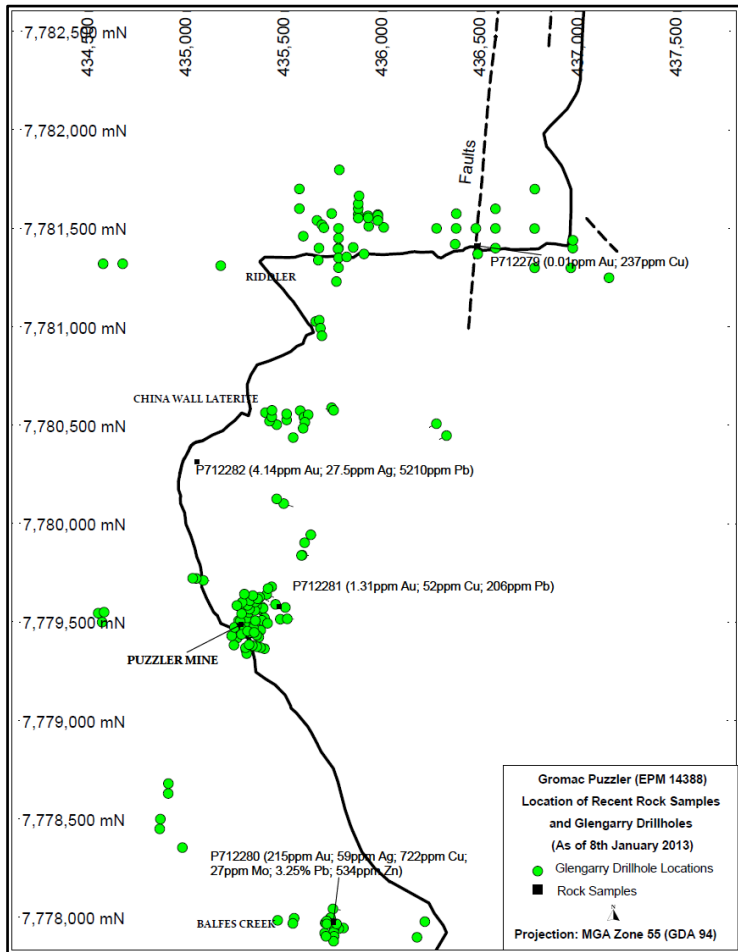
Prior drilling by Mantle at the Gromac prospect intersected what appears to be the upper margin of a molybdenum copper porphyry system.

Two holes were drilled, with one of the holes intersecting widespread mineralisation from 77m to 148m deep at the end of the drill hole.

Mantle is of the view that the mineralisation system at Gromac is similar in nature to those underlying the Mt Leyshon and Ravenswood porphyry gold mines.

These mines lie to the south and south east of Charters Towers respectively and are each based on multi million ounce deposits.

Picture 1: Gromac drill core with intense veining.



Picture 2: Historic Puzzler gold mine.

The Puzzler mine is an historic gold pit that has recently reverted back into Mantle's tenement area.

The area is considered prospective for gold both below the pit and along strike.

Mantle is currently reviewing historic reports to establish structural targets for potential drilling after the northern wet season.

Figure 5: Historic drill hole locations and recent rock chips.

The prior holder of the tenement (Glengarry) reported that gold mineralisation at Balfes Creek is associated with the basal contact of a shallow (ca. 45°) east dipping, north northeast striking Permo-Carboniferous intermediate to rhyolite dyke. Mineralisation can be traced over at least 100m strike and remains open with depth.



Picture 3: Balfes Creek Prospect area.



Reverse circulation drilling by Glengarry at Balfes Creek is reported to have produced the following significant results:

- 9m @ 3.0g/t gold from 12m in 96PZRC013,
- 6m @ 1.24g/t gold from 14m in 96PZRC025,
- 6m @ 8.0g/t gold from 3m in 96PZRC032,
- 7m @ 18.3g/t gold from 2m in 97PZB064.

Clearly the area is prospective with moderate to high gold grades intersected, however the precise location of these historic holes is yet to be determined.

Rock Chip Sample P712280 is situated within the southern end of the soil sample grid. This is 19m south west from the inferred NW-SE trending Rhyolite breccia.

The proximity of this very high (215 ppm = 215 g/t) gold value in relation to the peak geochemistry values (red) of gold from soil sampling (sampled in April 2012) strengthens the possibility of the presence of a localised structure containing high grade gold.

Picture 4: Balfes Creek high grade Rock chip sample P712280.

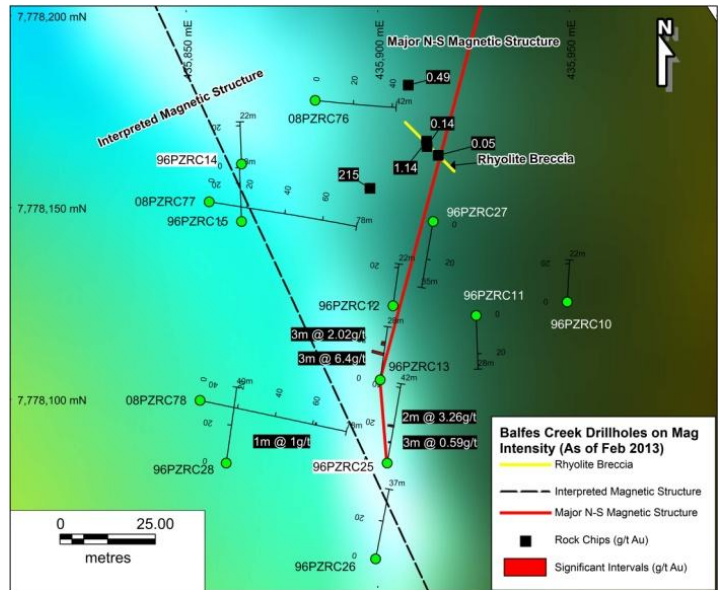
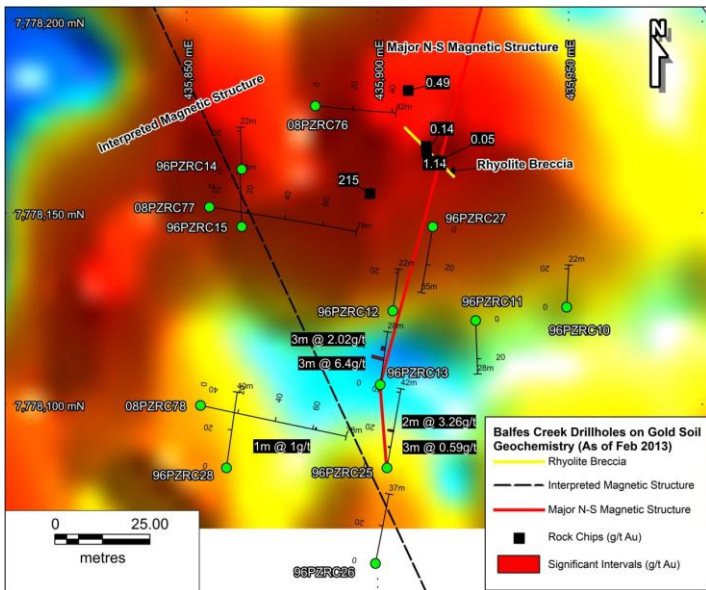


Figure 6: Rock chips and drill holes on soil geochemistry.

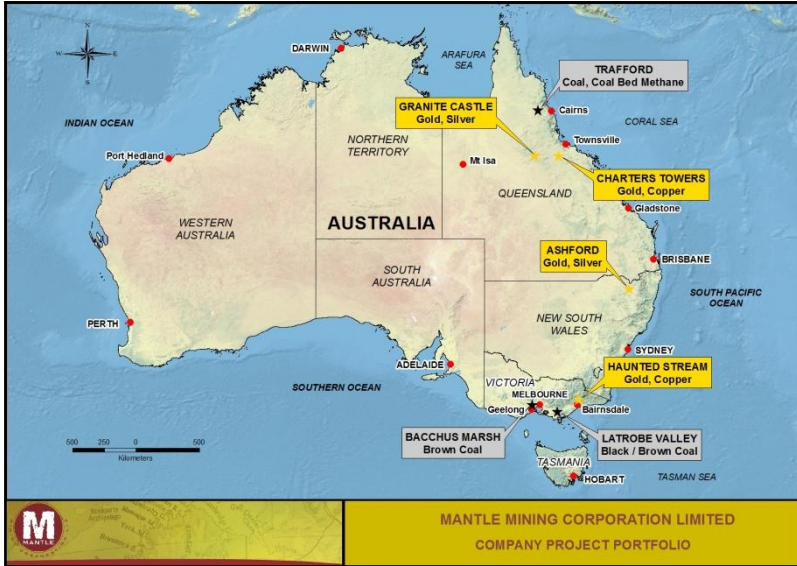
Figure 7: Rock chips and drill holes on magnetic intensity

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 Stuart Moore, who is an Employee of Mantle Mining Corporation Ltd. Mr Moore 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 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 Moore consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



MANTLE MINING CORPORATION COMPANY PROJECT PORTFOLIO:



Gold Projects

- ★ Granite Castle Gold & Silver (QLD)
- ★ Charters Towers Gold & Copper (QLD)
- ★ Haunted Stream Gold & Copper (VIC)
- ★ Ashford Gold & Silver (NSW)

Coal Projects

- ★ Trafford Coal & Coal Bed Methane (QLD)
- ★ Latrobe Valley Black & Brown Coal (VIC)
- ★ Bacchus Marsh Brown Coal (VIC)

Mantle's Gold Projects

The **Granite Castle** Project area contains a JORC Compliant (Measured, Indicated and Inferred) gold and silver Resource¹. Mineralisation occurs in a 600m long portion of a single shear. Over 14km of additional shears have been located, most 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 Resource² as well as a number of historic mines, including Day Dawn West, immediately west along strike from the main historic underground mining area. The Gromac/Puzzler area is prospective for deposits of copper, gold, silver and molybdenum.

The **Haunted Stream** Project area is prospective for gold and copper including many historical, high-grade, gold mines along the Haunted Stream fault corridor. A number of additional Exploration Licence areas prospective for base metals have been applied for.

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.

Mantle's Coal Projects

The **Trafford** Project area contains a large Exploration Target³ of black coal. Mantle executed an Indigenous Land Use Agreement (ILUA) with the Native Title Holders of the Mt Mulligan area, the Djungan People and is progressing preliminary activities ahead of initial low impact exploration.

The **Bacchus Marsh** Project area contains a 1.6 Billion tonne JORC Compliant brown coal Resource⁴. Mantle executed a 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 abut 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.

1, 2, 3 & 4: **JORC Compliant Exploration Target, Mineral Resource or Ore Reserve Tables and Specific Competent Persons Statements on next page.**



JORC COMPLIANT MINERAL RESOURCE or ORE RESERVE TABLES & COMPETENT PERSON STATEMENTS:

1. Granite Castle Gold & Silver Project:

Granite Castle Gold and Silver Resource Estimate (@ 0.2 g/t Au low grade & 30 g/t Au high grade cut-offs)					
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
Total	847,078	2.91	79,301	56.2	1,530,803

Granite Castle Gold and Silver Exploration Target					
Target	Tonnes	Au (g/t)	Au (oz)	Ag (g/t)	Ag (oz)
Granite Castle Shear	300,000 – 400,000	2.5 – 3.5	24,000 – 45,000	55 – 70	530,000 – 900,000
Coronation Shear	1,720,000 – 1,870,000	2.5 – 3.5	138,000 – 210,000	55 – 70	3,040,000 – 4,210,000
Total	2,020,000 – 2,270,000	2.5 – 3.5	162,000 – 255,000	55 – 70	3,570,000 – 5,110,000

Statements in this website relating to the Granite Castle Gold and Silver Resource Estimate are based on a report provided to the Company by Hellman and Schofield Pty Ltd, dated 16th May 2008 and first released to the ASX by Mantle on 28th 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 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". 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 Granite Castle JORC Resource and quantified a contained exploration potential (Exploration Target) within those structures. Dr Yeo notes 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." Statements in this report relating to the Coronation shear Exploration Target are based on data generated by the Company as first released in a report to the ASX by Mantle on 5th December 2012. "The information in this report that relates to the Coronation shear Exploration Target is based on information compiled by Mr Stuart Moore, a full time employee of Mantle Mining Corporation Ltd. Mr Moore 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 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 Moore consents to the inclusion of the matters based on his information in the form and context in which it appears in this report." Mr Moore notes 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 low grade & 30 g/t Au high grade cut-offs)					
Class	Tonnes	Au (g/t)	Au (oz)		
Inferred	2,128,000	1.8	125,000		
Total	2,128,000	1.8	125,000		

Statements in this report relating to the Great Britain Gold Resource Estimate 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 2nd 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:

Mt Mulligan Black Coal Exploration Target							
Target	Tonnes (Mt)	TM (%)	Ash (% adb)	VM (% daf)	FC (% daf)	TS (% adb)	SE (Mj/Kg)
Mulligan Sub-basin	100 – 500	2 – 3	11 – 42	29 – 39	60 – 71	0.14 – 0.43	16 – 28
Total	100 – 500	2 – 3	11 – 42	29 – 39	60 – 71	0.14 – 0.43	16 – 28

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 25th 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 (Maddingley Seam) Brown Coal Resource Estimate (@ 30% Ash upper cut-off)							
Class	Tonnes (Bt)	TM (%)	Ash (% db)	VM (% db)	FC (%db)	TS (% db)	GDSE (Mj/Kg)
Inferred	1.6	52.9	10.4	47.2	42.4	3.4	24.5
Total	1.6	52.9	10.4	47.2	42.4	3.4	24.5

Statements in this report relating to the Bacchus Marsh Brown Coal Resource estimates are based on a report provided to the Company by AMC Consultants Pty Ltd, dated August 2012: "Information in this report that relates to Coal Resource estimates prepared by AMC Consultants Pty Ltd is based on information compiled by Ms K Zunica, who is a Member of the Australasian Institute of Mining and Metallurgy and is a full time employee of AMC Consultants Pty Ltd. The estimates are based on exploration data provided by Mantle Mining Corporation Ltd. Ms Zunica has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which she 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". Ms Zunica has provided written consent to the inclusion in the report of the matters based on her information in the form and context in which it appears."