



## SIGNIFICANT GOLD IN HISTORIC HOLES AT GREAT BRITAIN JORC RESOURCE

ASX ANNOUNCEMENT

3 JUNE 2013

**Mantle Mining Corporation Limited (ASX: MNM)**, is pleased to announce that review of historic drilling within the company's Great Britain 2004 JORC Compliant gold Resource<sup>2</sup> area has highlighted significant, thick gold intersections at shallow depths in 8 drill holes that are not yet included in the Resource Base<sup>2</sup> model. A total of 40 historic holes are currently not included in the model.

### Highlights

- **All 40 holes intersected gold grades above the lower cut-off for the Great Britain JORC Resource base, with 8 holes containing significant intersections. Preliminary structural interpretation suggests influence of high-grade sub-vertical structures with potential to increase the overall size and grade of the deposit.**

GBD702:	18.6m @ 1.35g/t	from 58.4m	including	4m @ 3.2g/t	from 58.4m
GBD703:	39.3m @ 1.41g/t	from 20.0m	including	8m @ 4.1g/t	from 27.3m
GBD705:	31.5m @ 2.24g/t	from 38.4m	including	8.4m @ 4.7g/t	from 38.4m
GBD735:	11.0m @ 2.03g/t	from 47.1m	including	5.5m @ 4.1g/t	from 49.4m
GBRC704:	46.0m @ 1.20g/t	from 9.0m	including	3m @ 8g/t	from 44m
GBRC707:				6m @ 3.25g/t	from 21m
GBRC714:				6m @ 4.19g/t	from 54m
GBRC725:				7m @ 4.1g/t	from 34m

- **Mantle is fast-tracking design for an extensive drilling program at its North QLD Gold Projects, where the Granite Castle<sup>1</sup> and Great Britain<sup>2</sup> Projects already contain significant JORC Compliant Gold and Silver Resources<sup>1,2</sup>. A recent review also highlighted thick, high grade and shallow mineralisation at the Balfes Creek prospect (ASX announcement dated 28 February 2013), which is also being targeted for drilling.**

1 & 2: *Superscripts denote JORC Compliant Resource base Tables & Competent Person Statements on the last page of this report.*

For further information please contact:

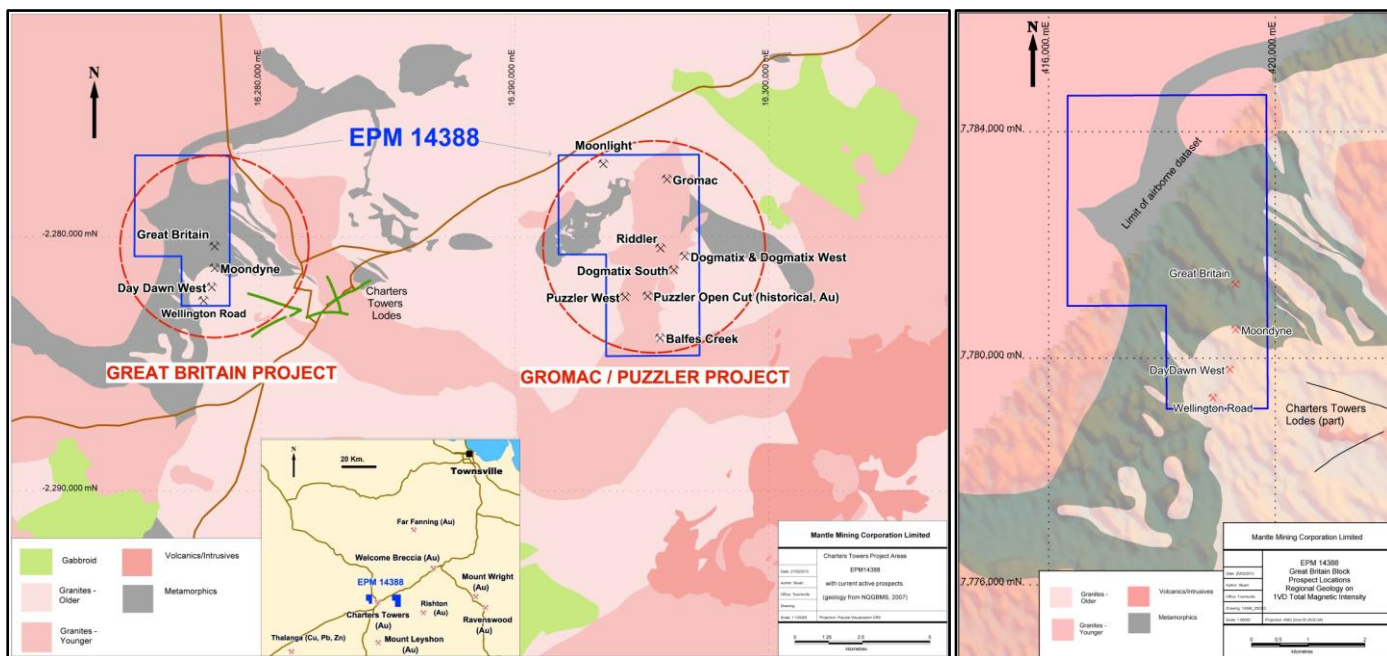
Ian Kraemer  
Managing Director  
Mantle Mining Corporation Limited  
[ikraemer@mantlemining.com](mailto:ikraemer@mantlemining.com)  
P: +61 7 3310 8932

### About Mantle Mining Corporation Limited

Mantle Mining (ASX: MNM) is an Australian based minerals exploration company that is focussed on a range of in high demand commodities. Mantle's principal activities are to acquire exploration tenements and locate economically developable deposits of coal and gold. It is Mantle's intention to progress mineral deposits through feasibility and into mining operations, to the benefit of all stakeholders.

Mantle's 100% owned Exploration Permit for Minerals (EPM) 14388 is located at Charters Towers and consists of two separate project areas, each including a number of highly prospective historic gold areas.

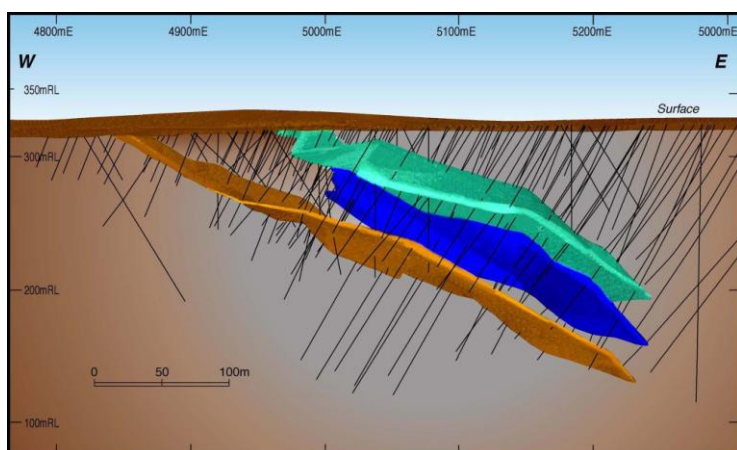
The Great Britain gold deposit, located just a few kilometres NW of Charters Towers, is hosted within the pre-Ordovician aged Charters Towers Metamorphics. This metamorphic sequence is comprised of interbedded siltstones, sandstone, calc-silicate, phyllites and a rare Banded Iron Formation (BIF), all of which have been intruded by abundant diorite dykes and sills. The entire sequence is weakly metamorphosed and strongly altered.



Alteration at Great Britain can be grouped into 4 distinctive styles, these being Chlorite, Sericite, Carbonate and Silica. Within the deposit, gold commonly occurs in association with sericite and silica alteration. Gold grades increase dramatically where sericite and silica alteration occur together. In general terms, the mineralisation at Great Britain occurs in two ways:

- Broad, continuous and low grade;
- Narrow, discontinuous and high grade;

Resource models developed for the Great Britain deposit have often relied on the assumption that the mineralisation is strata bound within metasediments dipping shallowly to the north east. The initial JORC resource at Great Britain (2004), suggests that the mineralised lodes occur as elongate NW trending, moderately NE dipping zones of strongly sericite-silica altered metasediments and calc-silicate. The current resource model has incorporated only the first type of mineralisation, that being broad, continuous and low grade.

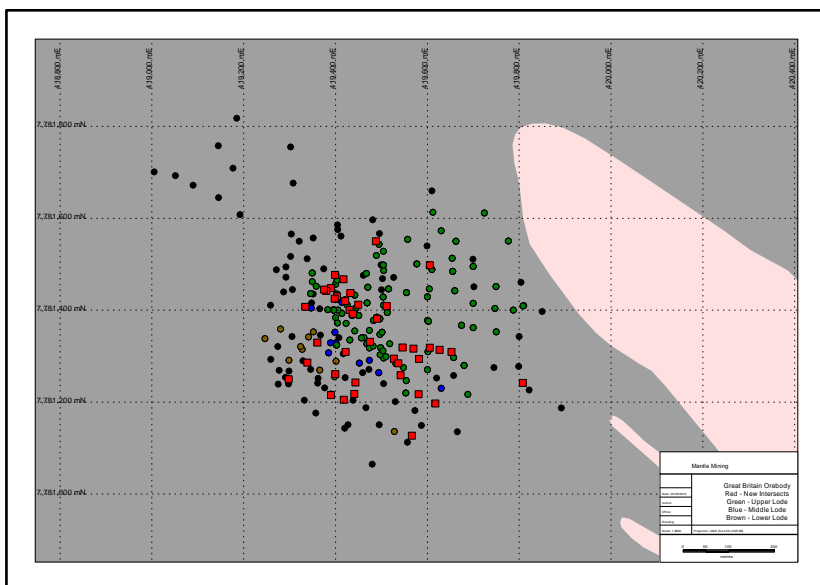


Mantle acquired the Great Britain deposit in 2007, and has since undertaken detailed geological mapping and completed further reverse circulation and diamond core drilling. The results of the mapping indicate the presence of steeply dipping NE structures (both shear zones and intrusive dykes) that may localise high grade components of the orebody.

It is thought that these structures, controlling the second style of mineralisation, could provide significant upside to the overall gold grade at Great Britain if their true orientation within the orebody can be accurately mapped / interpreted.

A review of all drilling at Great Britain showed that 40 holes are currently not included in the 2004 JORC resource base model. Most of these were drilled post 2004, although 7 holes do pre-date the resource being calculated. The collar locations of these holes relative to the holes included in the resource are shown below.

The green, blue and brown dots represent holes that intersected one or more of the upper (green), middle (blue) and lower (brown) mineralised zones currently represented in the resource model, while the red squares represent the 40 new holes. Bearing in mind that all 40 holes that are not currently included in the resource have intersections greater than 1g/t gold, the following are the best 8 intersections:



Diamond core (D) drill holes:

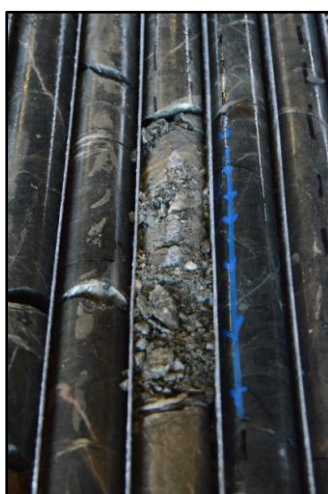
- GBD702: 18.6m @ 1.35g/t from 58.4m  
(incl: 4m @ 3.2g/t from 58.4m)
- GBD703: 39.3m @ 1.41g/t from 20m  
(incl: 8m @ 4.1g/t from 27.3m)
- GBD705: 31.5m @ 2.24g/t from 38.4m  
(incl: 8.4m @ 4.7g/t from 38.4m)
- GBD735: 11m @ 2.03g/t from 47.1m  
(incl: 5.5m @ 4.1g/t from 49.4m)

Reverse Circulation (RC) drill holes:

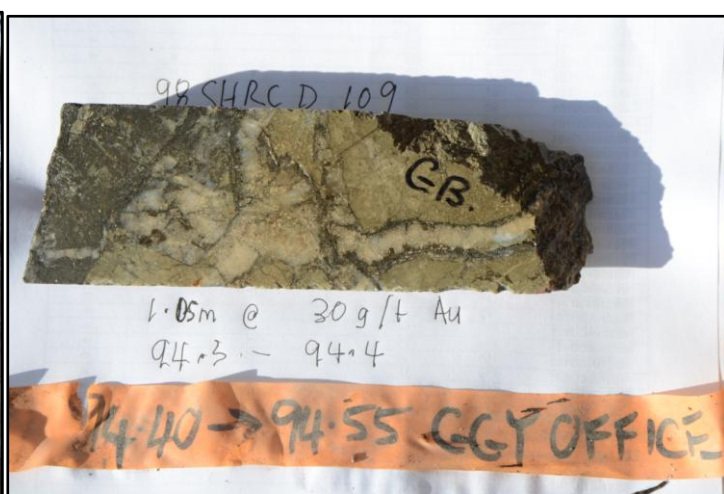
- GBRC704: 46m @ 1.2g/t from 9m  
(incl: 3m @ 8g/t from 44m)
- GBRC707: 6m @ 3.25g/t from 21m
- GBRC714: 6m @ 4.19g/t from 54m
- GBRC725: 7m @ 4.1g/t from 34m

Indications of the presence of steeply dipping NE structures (both shear zones and intrusive dykes) that may control the high grade component of the orebody can be illustrated from orientated structural readings from two non-mineralised shear structures shown below. The first is a shallow dipping shear zone in hole 98SHRCD111 while the second is shown in hole 98SHRCD122 which appears to be a steeply dipping shear zone. A surface outcrop exposure of the Shamrock lode, near the northern boundary of the deposit, exhibits strong gold mineralisation in close association with sub-vertical structures.

A variety of alteration styles are associated with mineralisation at Great Britain and many of the holes display zones of strong alteration, sulphide enrichment, brecciation and shearing that have yet to be sampled. Importantly, some of these zones sit well below the current outline of the JORC resource.



Shallow dipping shear in drill hole 98SHRCD111

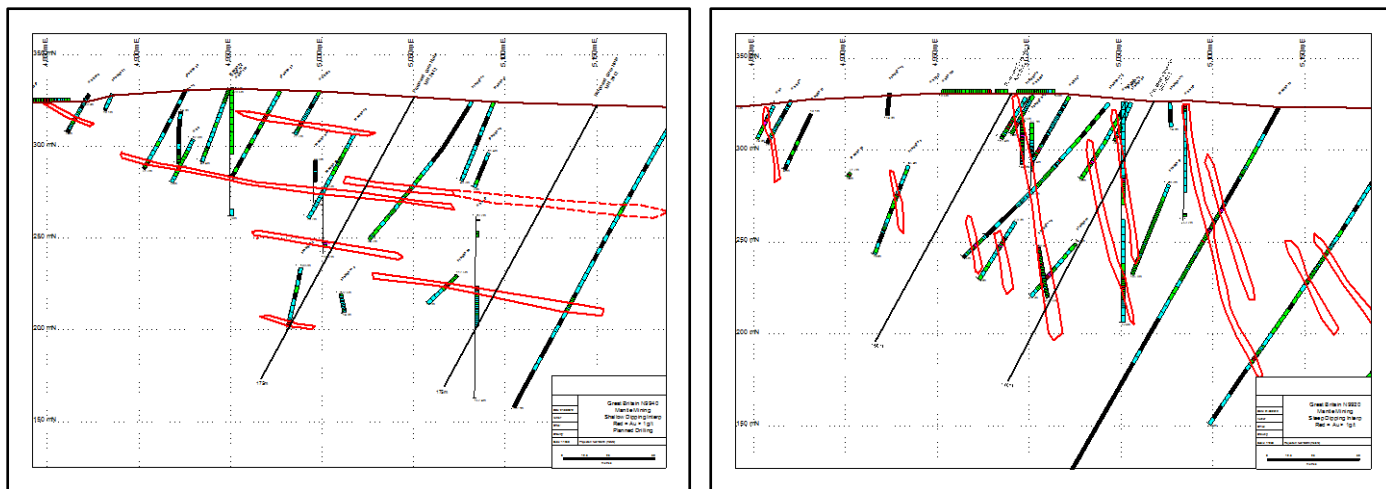


High grade altered metasediment with quartz vein in drill hole 98SHRCD109



Steeply dipping structure in drill hole 98SHRCD122

In order to generate updated structural information for the resource area, 6 diamond drill holes have been designed to intersect potentially high grade gold bearing structures controlling the distribution of gold whether they are either shallow or steeply dipping. Two of these holes are shown on representative interpretive sections below as thin black traces. Existing drill holes are shown as thick traces with intersections included colour coded to gold grade:



Once the proposed new drilling has been completed, all new and historic holes not yet included in the deposit database will be validated and the geologic model updated such that the JORC Resource base can be restated in accordance with JORC 2012 specifications.

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 Limited. 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.

## 1. Granite Castle Gold Project JORC Compliant Resource Base

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
<b>Total</b>	<b>847,078</b>	<b>2.91</b>	<b>79,301</b>	<b>56.2</b>	<b>1,530,803</b>

Statements in this report 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.”

## 2. Charters Towers Gold Project JORC Compliant Resource Base

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	
<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 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.”