MANTLE MINING
ASX: MNM and MNMO

DIRECTORS

Mr Martin Blakeman
Chairman

Mr Ian Kraemer
Managing Director

Mr Stephen de Belle
Non-Executive Director

Mr Peter Anderton
Executive Director, Technical

COMPANY SECRETARY

Mr Winton Willesee

PRINCIPAL PLACE OF BUSINESS AND REGISTERED OFFICE

Level 16, 190 Queen Street
Melbourne VIC 3000

CONTACT DETAILS

Website:
www.mantlemining.com

Email:
admin@mantlemining.com

ph: + 61 (8) 9481 8287
fax: + 61 (8) 9322 8248

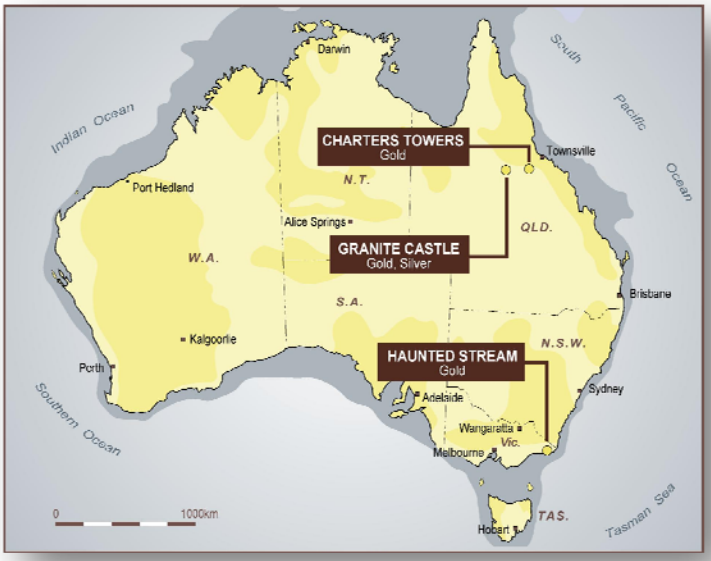
Level 16, 190 Queen Street
Melbourne VIC 3000

P.O. Box 3144
Broadway
Nedlands WA 6009

ASX Release
27 May 2008

Improved Confidence Levels for Latest Resource Estimates at Granite Castle

Mantle Mining Corporation Limited (ASX: MNM) wishes to advise that an upgraded resource estimate has recently been completed for the Granite Castle Project by Dr William Yeo MAusIMM. Dr Yeo is an employee of Hellman & Schofield Pty Ltd and he qualifies as a Competent Person under the meaning of the 2004 JORC Code. A summary of the underlying data and the methodology used for the resource estimates is appended to this announcement.



Granite Castle Location Plan

Key aspects of the resource estimate and report are summarised below.

Resource estimates of both gold and silver, from the 690m RL to the 540m RL have been produced for the Granite Castle Deposit, and are:-

Granite Castle Gold and Silver Resource Estimates @ 0.2 g/t Au

Class	tonnes	Au g/t	Au Ozs	Ag g/t	Ag Ozs
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 Resource Estimates @ 1.0 g/t Au

Class	tonnes	Au g/t	Au Ozs	Ag g/t	Ag Ozs
Measured	111,307	4.32	15,463	57.5	205,790
Indicated	249,988	3.59	28,829	70.7	567,910
Inferred	403,409	2.54	32,918	56.1	727,236
Total	**764,704**	**3.14**	**77,210**	**61.0**	**1,500,937**

(significant figures quoted do not imply precision)

It is pleasing to note that more than 50% of the resource estimate is now upgraded to the Indicated and Measured categories.

The geological model for the Granite Castle mineralization is relatively simple. Gold and silver mineralization is hosted in steeply dipping (~80 degrees) shear zones. The shear zones are characterized by sericite-talc alteration with sulphide minerals, silica flooding and extensive brecciation and are markedly different in appearance to the unaltered equigranular medium-grained biotite granite host rock. Two discrete zones have been identified and included in the resource.

Grade boundaries are usually sharp. Attention is drawn to the fact that the total Au and Ag ounces, for the two cut-off grades above, are very similar, so the estimate shows little sensitivity to the lower-end grade cut-off – at least in the range used above. Also, at a gold equivalent conversion of 55g/t Ag for 1g/t Au, silver contributes an additional 1g/t Au-equivalent to the gold resource grade estimate.

Comparison to Previous Estimate

The previous Resource Estimate (from 690m RL to 380m RL and all in the Inferred category) produced by Walhalla Mining in 1994 was:-

1.2Mt @ 4.2 g/t Au at a cut-off grade of 0.5 g/t Au
0.84Mt @ 4.9g/t Au at a cut-off grade of 1.0 g/t Au

The current Resource Estimate (from 690m RL to 540m RL and upgraded to include both Indicated and Measured resources) at the same cut-off grades is:-

0.84Mt @ 2.92 g/t Au at a cut-off grade of 0.5 g/t Au
0.76Mt @ 3.14 g/t Au at a cut-off grade of 1.0 g/t Au

Hellman & Schofield note that the difference in tonnes is mostly due to limiting the current resource to above 540m RL along most of the strike extent and to 420m RL where deeper drill hole intersections allow, whilst the historic resource was projected to the 380m RL. (Natural surface is approximately 690m - 695mRL).

Below the resource, the mineralised structure has been identified in several drill holes and can be projected to 380m RL, but insufficient data exists to estimate block grades. Hellman & Schofield report that this part of the structure provides exploration potential of:

Granite Castle Exploration Potential

	tonnes	**Au g/t**	**Ag g/t**
Exploration. Potential	300,000 – 400,000	2.5 – 3.5	55 – 70

Exploration potential does not constitute a mineral resource and the potential quantity and grade is conceptual in nature. There has been insufficient exploration to define a Mineral Resource for this potential and it is uncertain if further exploration will convert this to a Mineral Resource.

For further information;
Ian Kraemer
Managing Director
Mantle Mining
0407 758 722

Doug Macdonald
Capital Group
0424 255 959

The information in this report that relates to Exploration Results is based on information compiled by Mr Peter Anderton, a Director of Mantle Mining Corporation Ltd. Mr Anderton is a Member of the Australasian Institute of Mining and Metallurgy (M.AusIMM). Mr Anderton 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 Anderton consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

H & S Hellman & Schofield Pty Ltd

Technical specialists to the minerals industry
ABN 14083 082 722

16th May 2008

Mr Peter Anderton
Mantle Mining Corporation

Granite Castle Gold – Silver Resource - May 2008

The resource estimate for Granite Castle has been completed by Dr William Yeo, MAusIMM, who is an employee of Hellman & Schofield Pty Ltd and who qualifies as a Competent Person under the meaning of the 2004 JORC Code. He consents to the inclusion of these estimates, and the attached notes, in the form and context in which they appear.

A detailed description of relevant reporting and estimation criteria has been included. This uses Table 1 of the 2004 JORC Code as a template.

Resource estimates of gold and silver, have been produced for the Granite Castle Deposit, and are:

Granite Castle Gold and Silver Resource Estimates @ 0.2 g/t Au

Class	**tonnes**	**Au g/t**	**Au Ozs**	**Ag g/t**	**Ag Ozs**
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 Resource Estimates @ 1.0 g/t Au

Class	**tonnes**	**Au g/t**	**Au Ozs**	**Ag g/t**	**Ag Ozs**
Measured	111,307	4.32	15,463	57.5	205,790
Indicated	249,988	3.59	28,829	70.7	567,910
Inferred	403,409	2.54	32,918	56.1	727,236
Total	**764,704**	**3.14**	**77,210**	**61.0**	**1,500,937**

(significant figures quoted do not imply precision)

SYDNEY
6/3 Trelawney St., Eastwood, NSW, 2122
P.O. Box 599, Beecroft, NSW, 2119
Ph: (02) 9858 3863 Fax: (02) 9858 4057
Email: hellscho@hellscho.com.au

BRISBANE
Level 4, 46 Edward St., Brisbane, QLD, 4000
P.O. Box 16116, City East, Qld., 4002
Ph: (07) 3012 9393 Fax: (07) 3012 9373
Email: brisbane@hellscho.com.au

PERTH
102 Colin St., W.Perth, WA, 6005
P.O. Box 125, W.Perth, WA, 6872
Ph: (08) 9485 0403 Fax: (08) 9485 0406
Email: perth@hellscho.com.au

Below the resource the mineralised structure has been identified in several drill holes and can be projected to 380m RL, but insufficient data exists to estimate block grades. This part of the structure provides exploration potential of:

Granite Castle Exploration Potential

	tonnes	**Au g/t**	**Ag g/t**
Exploration. Potential	300,000 – 400,000	2.5 – 3.5	55 – 70

The Granite Castle database is largely comprised of historical records acquired by previous owners. None of the historical data was in digital form and was captured form existing plans and reports. No independent quality control data is available for the historical assay data, although a number of check assay programs, including re-sampling of all the historical diamond core, have been completed by Mantle Mining and suggest the quality of data is acceptable. Hellman & Schofield have not been able to independently validate the database or comment directly on the accuracy and reliability of the historical assay data. Mantle Mining Corporation therefore takes responsibility for the accuracy and correctness of the data used in this resource estimate.

William J A Yeo, MAusIMM PhD
Consulting Geologist, Hellman & Schofield Pty Ltd

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.

GRANITE CASTLE CHECKLIST OF ASSESSMENT AND REPORTING CRITERIA

Preamble

These notes are based on Table 1 of the 2004 JORC Code. Table 1 is a Guideline and the details are not required to be included in Mineral Resource statements unless there are material issues relating to inadequacies or uncertainties in any of the items or criteria. These notes are included, however, to provide details of the resource estimation process.

JORC Table 1

Criteria	**Explanation**
Sampling Techniques and Data	
Sampling techniques	Data is predominantly from RC drilling (94%), the remainder coming from diamond core (6%). Drilling was completed by Conatus Pty Ltd in 1988 114 RC holes for 2,648m Walhalla Mining Company 1993 94 RC holes for 7,182m 20 Diamond Core holes for 3,737m Mantle Mining 2007 14 RC holes for 161m 3 Diamond Core holes for 161m
Drill sample recovery	RC sample recovery data has been recorded for the Walhalla and Mantle Mining holes. Summary statistics and plots show there is no correlation between recovery and gold. No recovery data exists fro the earlier Conatus RC holes. Diamond core recoveries for historical holes are not available. Inspection of core showed that recoveries were generally good. Core recovery for the three Mantle Mining diamond holes was effectively 100% through the mineralized zones.
Logging	Geological logging has been completed in a quantitative way and supports observations seen.
Sub-sampling techniques and sample preparation	Diamond core was cut and ¼ core taken for assay. RC samples were collected via riffle splitter. No RC sampling at the project was observed during the current study.
Quality of assay data and laboratory tests	Gold assays were obtained using Fire Assay methods by ALS and SGS and Analabs. Laboratory repeat analyses for the Conatus holes showed very good agreement, 2.30g/t vs 2.26 g/t. No independent QAQC data is available from the 1988 and 1993 drilling programs.

	Two different assay standards were used during the 2007 drill program but both were low grade (0.0385g/t Au and 0.45 g/t Au) and did not reflect the range of grades characteristic of the project. Results obtained for these standards though were reasonable. The 0.45g/t Au standard (after removing one outlier) reported 4% higher than the recommended value on average.

Verification of sampling and assaying	A number of duplicate sampling programs have been completed. These include: Duplicate core sampling of 1993 diamond holes completed by Mantle Mining in 2008 Duplicate RC sampling of the 2007 RC samples Duplicate sampling of the 1998 RC samples completed in 1993 by Walhalla Mining. Comparison between the original core and duplicate analyses (44 pairs) shows very good agreement. The means of the two sample populations were 1.15 g/t Au vs 1.11 g/t Au. A difference of <4%. Standards were used with these samples and reported differences between +/-6%. Comparison between the original RC and duplicates assays from the 2007 drill program (20 pairs) showed very good agreement with reported means of 2.90g/t Au vs 2.86g/t Au. Comparison between original RC and duplicate assays from the 1988 drilling program (255 pairs) shows that the mean grade (5.20 g/t Au) of original samples (assayed by ALS in 1988) is about 15% higher than the duplicate mean grade (4.44g/t Au) (assayed by Analabs in 1993). No twinned holes have been completed. H&S recommend that the Walhalla Mining RC holes are validated by completing a program of twinned diamond holes.
Location of data points	All drill hole collars have been re-surveyed in 2007/2008. No down hole surveys exist for the shallow RC holes but deeper RC and diamond core have down hole surveys.
Data spacing and distribution	Drill hole spacing is variable. The top 20m of the mineralized structure is tested at approximately 10m x 10m, from 20m to about 70m depth the drill pattern is nominally 20m x 25m over much of the strike length of the deposit. From 70m to about 130m the drill pattern is nominally 50m x 50m. Below this level data is sparse and unevenly distributed,

<table>
<tr><th>Criteria</th><th>Explanation</th></tr>
<tr><td colspan="2">Estimation and Reporting of Mineral Resources</td></tr>
<tr><td>Database integrity</td><td>Historic data was collated and validated by geological consultants Ravensgate from existing reports and plans as part of the Independent Geologists Report. H&S have not completed any additional data validation because the original logs and assay reports are not available.

The company does not maintain a fully relational database. Data is kept in various spreadsheets. H&S recommend that Mantle Mining invest in formal database. This will make data handling and processing easier as well as improving data security.</td></tr>
<tr><td>Geological interpretation</td><td>The geological model for the Granite Castle mineralization is relatively simple. Gold and silver mineralization is hosted in steeply dipping (~80 degrees) shear zones. The shear zones are characterized by sericite-talc alteration with sulphide minerals, silica flooding and extensive brecciation and are markedly different in appearance to the unaltered equigranular medium-grained biotite granite host rock. Two discrete zones have been identified and included in the resource.

An oxidation surface, based on logging, was defined at a depth of 15m.</td></tr>
<tr><td>Dimensions</td><td>The main shear zone varies in thickness from ~1m to a maximum of about 10m in places and has a known strike length of about 600m. The shear zone has been drilled to a depth of about 300m.</td></tr>
<tr><td>Estimation and modelling techniques</td><td>Modelling method and parameters used:

Block size 5m (along strike) x 1m x 2m vertically.
Grade Estimation was completed using Ordinary Kriging. Data analysis shows that the constrained mineralized population have relatively low CV values indicating that Ordinary Kriging is an appropriate estimation technique. High grades were cut to 30 g/t Au and 500 g/t Ag.

<table>
<tr><th></th><th>Au</th><th>Au cut</th><th>Ag</th><th>Ag cut</th></tr>
<tr><td>No. Data</td><td>1062</td><td>1062</td><td>1062</td><td>1062</td></tr>
<tr><td>mean</td><td>3.44</td><td>3.31</td><td>56.46</td><td>54.09</td></tr>
<tr><td>CV</td><td>1.815</td><td>1.579</td><td>1.754</td><td>1.595</td></tr>
<tr><td>Minimum</td><td>0.01</td><td>0.01</td><td>0.25</td><td>0.25</td></tr>
<tr><td>Q1</td><td>0.42</td><td>0.42</td><td>6</td><td>6</td></tr>
<tr><td>Median</td><td>1.028</td><td>1.028</td><td>14</td><td>14</td></tr>
<tr><td>Q3</td><td>3.78</td><td>3.78</td><td>65</td><td>65</td></tr>
<tr><td>Maximum</td><td>90.8</td><td>30</td><td>870</td><td>500</td></tr>
<tr><td>IQR</td><td>3.36</td><td>3.36</td><td>59</td><td>59</td></tr>
</table>

Data was composited into 1m equal length composites for estimation.
Estimation was completed using a series of search ellipse becoming progressively smaller, from 100m x 100m (along strike and down dip) x 10m (across the shear zone) to 30mx30mx10m, 20mx20mx10m and finally 10mx10mx10m.
Block estimates were only allowed if data composites from at least two drill holes were used for Inferred estimates or at least four drill holes for higher confidence Indicated or Measured estimates.</td></tr>
</table>

	The maximum number data to use was set at 24. Ore blocks were assigned a block partial or Ore% value based on the proportion of the block inside the constraining wireframe. Modelling and estimation was carried out using Minesight software. Grade estimates were validated by: Visually comparing the block grades with data composites. Calculating mean model block and composite grades for a series of panels, with each panel representing 100m of strike length and 40m vertical extent. The previous Resource Estimate produced by Walhalla Mining in 1994 was: 1.2Mt @ 4.2 g/t Au at a cut-off grade of 0.5 g/t Au 0.84Mt @ 4.9g/t Au at a cut-off grade of 1.0 g/t Au The current Resource at the same cut-off grades is 0.84Mt @ 2.92 g/t Au at a cut-off grade of 0.5 g/t Au 0.76Mt @ 3.14 g/t Au at a cut-off grade of 1.0 g/t Au The difference in tonnes is mostly due to limiting the depth of current resource, to above 540m RL along most of the strike extent and to 420m RL where deeper drill hole intersections allow, whilst the historic resource was projected to the 380m RL.
Cut-off parameters	The constraining wireframes were based on a cut-off grade of approximately 0.2g/t Au. Contacts between the mineralized shear zone and host granite are sharp and wide low grade haloes adjacent to the shear zone are not typical.
Metallurgical factors or assumptions	No metallurgical test work has been completed by Mantle Mining. Previous test work was completed by Amdel for Conatus in 1988. Initial test work on two surface samples returned cyanide leach recoveries of 89% and 84%. Follow-up test work on the same samples produced cyanide leach recoveries of 72-75%. In 1989 Amdel completed more extensive test work on two drill hole composite samples. The results were: A column cyanide leach on one composite with gold recovery of only 26%. Bulk flotation test on the other sample with gold recovery of 41% Sequential flotation test showed 75% of gold reported in the pyrite-arsenopyrite concentrate. Most effective processing system would be either flotation followed by roasting and cyanide leach of oxidized material or bacterial oxidation and heap leaching.

Bulk density	A bulk density of 2.6 has been used for Oxide material and 2.8 for primary material, based data from existing reports. No new data has been acquired to verify these values. H&S recommend that additional bulk density determinations are completed.
Classification	The resource has been classified into Measured Indicated and Inferred categories based on the results of grade estimation and the progressive restriction of the estimation data searches. Measured estimates are those were data from at least 4 drill holes has been used with a 10mx10m search radii (along strike and down dip), or where 6 drill holes have been used with a 20mx20m search radii. Indicated estimates are those where data from at least 4 drill holes has been used with a 30mx30m search radii. Inferred estimates are those where data from at least 2 drill holes has been used. Search radii vary from a maximum of 100mx100m to 30mx30m along strike and down dip.