



**Queensland Mining Corporation Limited**  
**ABN: 61 109 962 469**  
ASX Code: QMN  
Phone: +61 (8) 9488 8333  
Fax: +61 (8) 9320 7501  
Email: [admin@qmcl.com.au](mailto:admin@qmcl.com.au)  
Web: [www.qmcl.com.au](http://www.qmcl.com.au)  
Postal Address: GPO Box K845 WEST PERTH W.A. 6872

06/08/2013

**Company Announcements Platform**  
**Australian Stock Exchange**  
**10th Floor, 20 Bond Street**  
**Sydney**  
**NSW 2000**

### **Greenmount Resource Update**

QMC is pleased to announce the update of the Greenmount Mineral Resource Estimate with an improvement in the resource classification following the 2012 exploration and infill drilling program.

The Greenmount resource at the 0.2% Cu cut-off grade is now

**Total Mineral Resource: 12.7Mt @ 0.74% Cu containing 93.8Kt Cu**

Comprising

Measured Mineral Resource: 1.2 Mt @ 1.26% Cu  
Indicated Mineral Resource: 7.7 Mt @ 0.75% Cu  
Inferred Mineral Resource: 3.8 Mt @ 0.57% Cu

At a higher 0.5% Cu cut-off grade

**Total Mineral Resource: 5.3Mt at 1.31% Cu containing 69.8Kt Cu**

Comprising

Measured Mineral Resource: 0.8 Mt @ 1.61% Cu  
Indicated Mineral Resource: 3.3 Mt @ 1.31% Cu  
Inferred Mineral Resource: 1.2 Mt @ 1.10% Cu

The estimate was completed by Golder Associates Pty Ltd an independent consultant. A description of the property and details of the estimate as prepared under the guiding principles of the JORC code 2012 edition are provided in the attached document.

Greenmount is an oxide and transitional copper-cobalt-gold deposit previously assessed by the Matrix Metals feasibility study in 2004 for acid heap leach processing where copper is the principal element of interest. Significant mineralisation for cobalt and gold are also present averaging 0.05% Co and 0.3g/t Au. These additional elements were selectively assayed during previous drill programs with 91% and 59% of the drill hole samples within the mineralised zone assayed for cobalt and gold, respectively. This level of completeness reflects the confidence in the additional elements which could be recovered with additional or alternative processing methods.



**Queensland Mining Corporation Limited**

**ABN: 61 109 962 469**

ASX Code: QMN

Phone: +61 (8) 9488 8333

Fax: +61 (8) 9320 7501

Email: [admin@qmcl.com.au](mailto:admin@qmcl.com.au)

Web: [www.qmcl.com.au](http://www.qmcl.com.au)

Postal Address: GPO Box K845 WEST PERTH W.A. 6872

71% of the resource copper metal is located within several consistent zones of alteration that present a higher grade core zone. The resource estimate at a 0.5% cut off grade also identifies a higher grade zone that will be an important focus of ongoing development studies.

The resource update includes all drilling completed to date, including the drilling completed by QMC in 2012, which includes 38 holes for a total of 6,357m. The QMC drilling programme comprised 30 RC holes and 8 diamond drill holes (6 for metallurgical purposes and were not assayed). Previous drilling within and immediately adjacent to the deposit by Valdora/Homestake, Majestic and Matrix totalled 16,112 m of RC and 3,908 m of diamond drilling. QMC relogged from available chip trays (from Majestic and Matrix drilling) 9,000 m of RC and half the diamond drill core where core photos existed. This data along with QMC drilling formed the basis of producing a consistent geological model throughout the deposit.

The infill drilling program confirmed the mineralised zones in all cases.

The exploration program successfully converted all resources within the historical Matrix Metals pit design (2005 Feasibility Study) to either Measured or Indicated Mineral Resources. Some small loss of tonnage during this conversion was offset by slightly higher average copper grade estimates. Infill in high metal areas was successful in adding confidence to resource.

Investigation of extrapolated Inferred Mineral Resource below the base of the previous pit design and existing drilling were mixed but in several areas demonstrated a reduction in grade or thickness with depth. These results do not significantly impact the previous economic analysis and pit design as they are well below the likely open cut mining depths.

Attached are further details of the resource estimate as prepared under the guiding principles of the JORC code 2012 edition.

The Company's CEO Mr Tony Martin said "the new resource has been successful in improving the confidence in the Greenmount Mineral Resource and will allow the Company to conduct future feasibility studies on extracting the best economic value in particular focussing on the higher grade portions of the resource"

For further information please contact either of the following persons:

1) Tony martin

CEO, QMC

Phone: 08 9488 8333

Email: [tony.martin@qmcl.com.au](mailto:tony.martin@qmcl.com.au)

2) Dr. Lakshman Jayaweera

Director, QMC

Mobile: 0418 239 441 or + 94 777900447

Email: [office@chemmet.com.au](mailto:office@chemmet.com.au)

Queensland Mining Corporation Limited

## GREENMOUNT RESOURCE ESTIMATE UPDATE FOR JULY 2013

### Introduction

The Greenmount project is situated in north-west Queensland, Australia, approximately 35 km south of Cloncurry, Figure 1. The property has a current mining lease that contains a copper-gold-cobalt deposit hosted in carbonaceous rocks of the Mid Proterozoic Marimo Slate, close to the contact with the Staveley Formation.

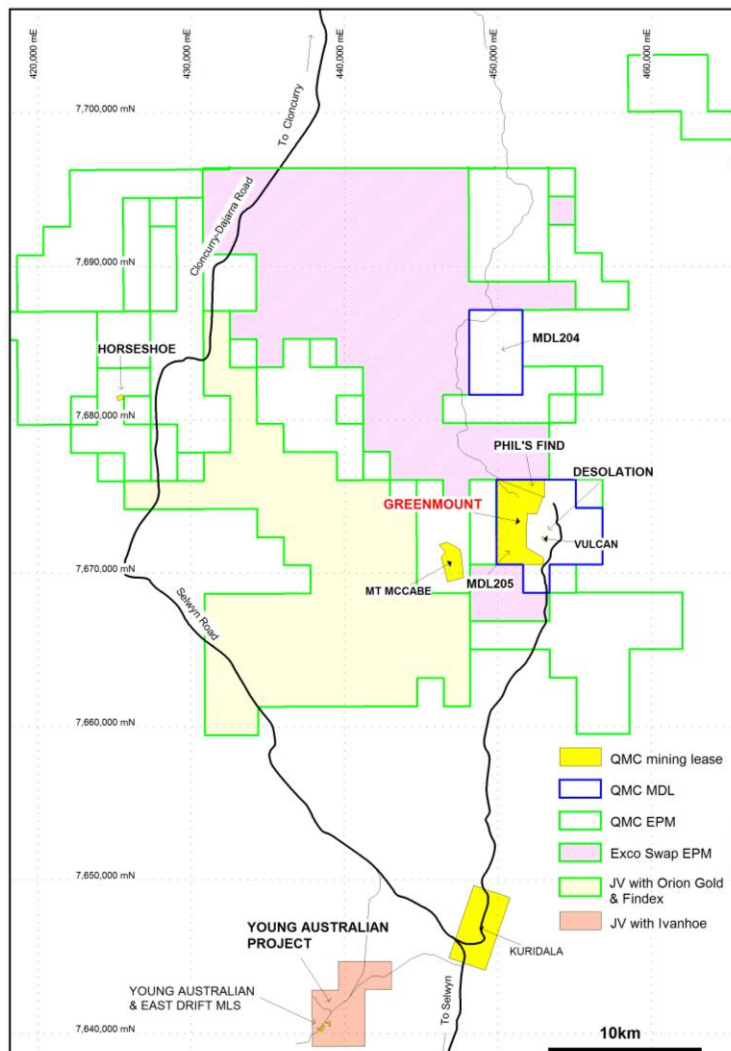


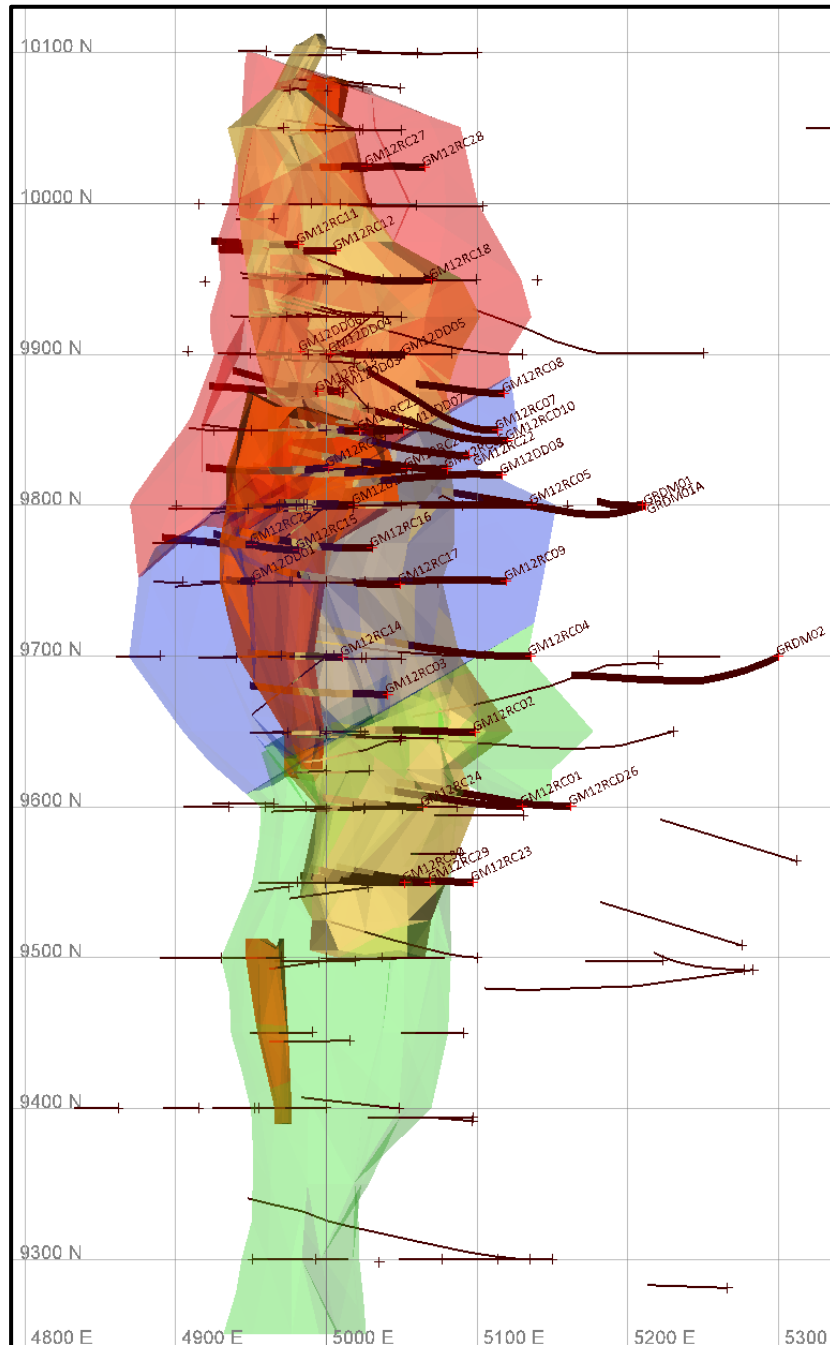
Figure 1: Greenmount Location Plan



The deposit has structural controls with mineralisation associated with variable grades of alteration. The deposit dips at 65° to the east and is subparallel to the Marimo-Steveley contact. Higher grade mineralisation associated with potassic alteration generally dips slightly steeper at 75° to 80°.

Early small scale mining is poorly documented, only one small pit exists which is assumed to have occurred in this time. Modern exploration commenced in 1954 and continued sporadically by a series of parties. Resource drilling consists of 250 drillholes to date with significant drilling completed in programs in the late 1980's (80 holes by Homestake), late 1990s (67 holes by Majestic), early 2000's (64 holes by Matrix Metals) and 38 recent holes by QMC in 2012.

Total drilling for the project includes 250 drill holes totalling 28 km of drilling. Surface drill hole traces are displayed in Figure 2 with respect to the mineralisation wireframe models.



Drill hole traces in black with QMC 2012 drilling labelled and thicker traces  
Enveloping unaltered mineralisation domains are translucent to reveal the internal altered mineralisation domain

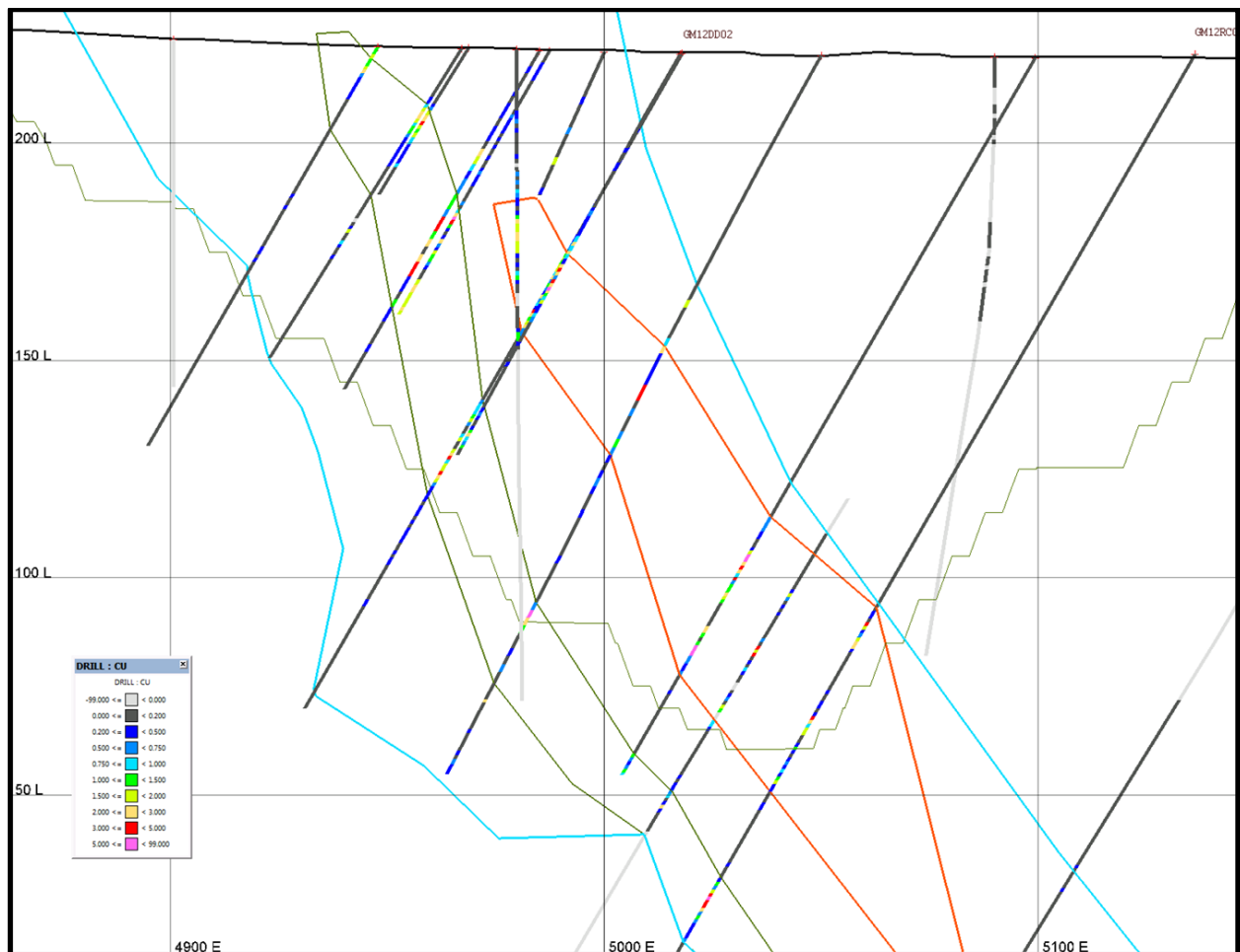
Figure 2: Greenmount Drill Hole Plan

Figure 3 provides a cross section of the Greenmount geology and mineralisation domains.

A number of existing Mineral Resources held by QMC are located within 30 kms of Greenmount. These have the potential to make a material difference to the Greenmount project by providing additional feed to any processing facility located at Greenmount. These resources include Kuridala, Vulcan, Desolation, Young Australia and Mt McCabe and are subjects of previous resource estimates and public announcements.

The Mineral Resources were estimated using a block modelling approach with grades estimated using indicator kriging. The estimated area was divided into two mineralisation styles for the higher grade alteration zone and lower grade unaltered zone. These were further subdivided into three faulted block systems which have relatively small lateral offsets. Figure 4 displays an example cross section of the block average grade estimates for copper as a representation of the indicator kriging estimates.

Golder Associates Pty Ltd estimated the Mineral Resources using all drilling available to 31 June 2013. The Mineral Resources in Table 1 are provided using a copper cut-off. Assaying of other elements for gold, silver and cobalt are less consistent in the older drilling. As a result the estimates for these elements are less precise and not presented in the resource statement that is based on copper estimates only for resource classification. Deep weathering at Greenmount has resulted in transitional copper minerals persisting to the full depth of the resource with only remnant pods of fresh sulphide minerals occurring in places. The most likely processing route is considered to be heap leach copper extraction as studied by Matrix Metals in their 2006 feasibility study. However remnant fresh sulphides and significant gold occurrences could make sulphide flotation processing a more economically viable option. For this purpose the additional elements of gold, cobalt and silver are also presented in Table 1. These additional element estimates should be considered indicative due to incomplete assaying and may not be recoverable using some processing methods.



*Blue outline of unaltered mineralised domain, Green & Red outlines of altered mineralised domains, thin green profile of Matrix Metals 2005 pit design*

*Figure 3: Section 9800N Displaying Geology Interpretations and Copper Drilling Assays*

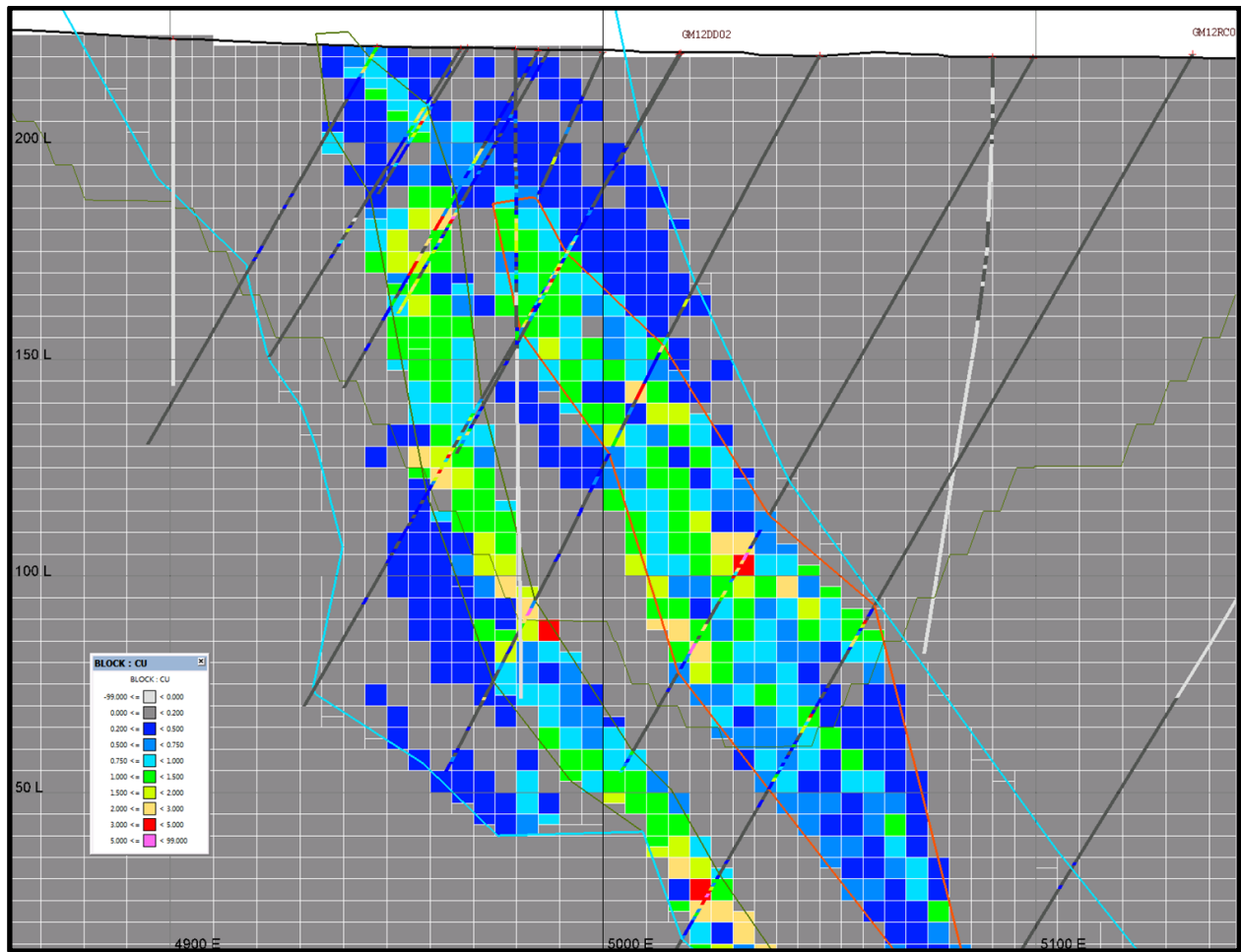


Figure 4: Section 9800N Displaying Copper Average Block Grade Estimates

A cut-off of 0.2% Cu is considered appropriate for reporting a Mineral Resource for open pit mining as the lowest likely grade for a potential acid heap leach processing method.

### Resource Statement

The total Mineral Resource estimate, effective date 31 June 2013, for the Greenmount copper deposit, within the interpreted copper mineralisation geological envelopes at a copper cut-off grade of 0.2% Cu is summarised as:

Measured Mineral Resource:	1.2 Mt @ 1.26% Cu
Indicated Mineral Resource:	7.7 Mt @ 0.75% Cu
Inferred Mineral Resource:	3.8 Mt @ 0.57% Cu

Additional details of the estimate are provided in Table 1, with additional elements and a breakdown by the mineralisation type. The additional elements for gold, cobalt and silver are indicative as they are not completely assayed across the resource. For the mineralised domains these additional elements have a sampling completeness of 59% for gold, 96% for cobalt and 27% for silver. This provided an indication of the robustness of the additional elements and which are not considered for the resource classification.

Greenmount has a higher grade zone of mineralisation with 71% of the copper metal in 0.2% Cu cut-off resource estimate in Table 1 derived from the higher grade alteration domains. The alteration domains display reasonable continuity and define a discreet core to the resource. Also 74% of the metal is retained at the higher cut-off grade of 0.5% Cu, Table 2.

**Table 1: Greenmount *in situ* Mineral Resource as at June 2013 at a 0.2% Cu cut-off**

Domain Group	Classification	Mt	Cu %	Co %	Au g/t	Ag g/t	Cu Kt ( <i>in-situ</i> )
Altered	Measured	1.16	1.26	0.07	0.46	0.8	14.6
	Indicated	4.02	1.04	0.07	0.45	1.1	42.0
	Inferred	1.03	0.99	0.06	0.40	1.2	10.1
	Sub-total	6.21	1.07	0.07	0.44	1.1	66.8
Unaltered	Measured	0.00					0.0
	Indicated	3.70	0.43	0.04	0.14	0.7	15.7
	Inferred	2.75	0.41	0.03	0.12	0.3	11.3
	Sub-total	6.45	0.42	0.04	0.13	0.6	27.0
Total	Measured	1.16	1.26	0.07	0.46	0.8	14.6
	Indicated	7.72	0.75	0.06	0.30	0.9	57.7
	Inferred	3.78	0.57	0.04	0.20	0.5	21.4
	Total	12.66	0.74	0.05	0.28	0.8	93.8

**Table 2: Greenmount *in situ* Mineral Resource as at June 2013 at a 0.5% Cu cut-off**

Domain Group	Classification	Mt	Cu %	Co %	Au g/t	Ag g/t	Cu Kt ( <i>in-situ</i> )
Altered	Measured	0.84	1.61	0.07	0.51	0.9	13.5
	Indicated	2.58	1.44	0.08	0.50	1.2	37.2
	Inferred	0.61	1.44	0.07	0.48	1.3	8.7
	Sub-total	4.02	1.48	0.07	0.50	1.1	59.5
Unaltered	Measured	0.00					0.0
	Indicated	0.73	0.85	0.04	0.17	0.6	6.2
	Inferred	0.56	0.73	0.03	0.14	0.2	4.1
	Sub-total	1.29	0.80	0.03	0.16	0.5	10.3
Total	Measured	0.84	1.61	0.07	0.51	0.9	13.5
	Indicated	3.31	1.31	0.07	0.43	1.1	43.4
	Inferred	1.16	1.10	0.05	0.32	0.8	12.8
	Total	5.31	1.31	0.06	0.42	1.0	69.8

Mineral Resources are not Mineral Reserves. Mineral resources that have not been converted to Mineral Reserves do not have demonstrated economic viability.

The previous resource estimate and resource statement by QMC was in 2010 at 0.2% Cu cut-off. A comparison of the previous and current resource estimates at this cut-off is provided in Table 3. Infill drilling and down dip drilling by QMC targeted Inferred Mineral Resources close or within previous pit designs.

Conversion of previous Inferred Mineral Resources to Indicated or Measured Mineral Resources in 2012 resulted in some losses as down dip zones were generally confirmed but in places were narrower than predicted. Other down dip extensions has resulted in a similar total Mineral Resource.

Mineral Resources within the previous pit design were all converted from Inferred to a higher category but with slightly lower tonnage and slightly higher grade copper.

**Table 3: Resource Estimate Comparison by Classification for 0.2% Cu Cut-off**

Resource Model	Classification	Mt	Cu %	Co %	Au g/t	Ag g/t
2010	Measured	1.0	1.27	0.061	0.51	-
	Indicated	6.2	0.70	0.052	0.28	-
	Inferred	5.1	0.78	0.069	0.28	-
	Total	12.3	0.78	0.060	0.30	-
2013	Measured	1.2	1.26	0.068	0.46	0.85
	Indicated	7.7	0.75	0.056	0.30	0.92
	Inferred	3.8	0.57	0.043	0.20	0.53
	Total	12.7	0.74	0.053	0.28	0.80

The Mineral Resource estimate is based on information and responsibilities as follows:

- Exploration and resource drilling were completed by QMC.
- Geology and mineralisation interpretations were updated by QMC and implemented and modified by Golder.
- Data analysis and Mineral Resource estimation was completed by Golder.

Competent Persons involved in the preparation of the resource estimate and this statement include:

- Data management and drilling by QMC were completed under the supervision of Doug McLean (QMC) and Tony Martin (QMC).
- Resource estimation was undertaken by John Horton (Golder)

The Greenmount deposit resources were previously estimated and publically released by QMC via the ASX on 22 April 2010.

The current estimate includes the following additional data:

- 30 surface RC drill holes by QMC in 2012
- 2 surface diamond drill holes by QMC IN 2012
- 6 metallurgical surface diamond drill holes which were not assayed by QMC in 2012
- 2 surface diamond drill holes drilled by Matrix in 2006

The current resource estimate includes all available drilling and updates all resource areas at Greenmount.

This Mineral Resource estimate is based upon and accurately reflects data compiled or supervised by Mr John Horton, Principal Geologist, who is a Fellow of the Australasian Institute of Mining and Metallurgy, a Member of the Australian Institute of Geoscientists and a full time employee of Golder Associates Pty Ltd. Mr Horton has sufficient experience that is relevant to the style of mineralisation and the type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

Exploration data used as the basis for the resource estimate were compiled or completed under the supervision of Mr Doug McLean and Mr Tony Martin, who are Members of the Australasian Institute of Mining and Metallurgy, a Member of the Australian Institute of Geoscientists and are full time employees of QMC. Mr McLean and Mr Martin have sufficient experience that is relevant to the style of mineralisation and the type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves' or as a Qualified Person under NI43-101.



## Resource Estimate Details

A technical report has been prepared that documents aspects of the Mineral Resource estimate. The following tables provide a brief summary of that information in the order and form of the JORC (2012) Table 1.

Criteria	Explanation
Sampling techniques	<p><i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></p> <p>Previous sampling methods were poorly documented. There is no indication that the sampling methods were unusual, with the exception of the some fillet and grind core samples. No surface samples, trenches or RAB data was used in the resource estimate although some of this data does exist.</p> <p>All samples used for resource estimation are from diamond core drilling (~20%) or reverse circulation (RC) drilling (~80%) across multiple periods and operating companies.</p> <p>Homestake (1988 to 1990) RC and diamond drilling methods are not documented. RC sampling was on predominantly 2 m intervals and occasionally on 1 m intervals. Diamond core was NQ diameter. Sampling of half core was on irregular intervals generally between 1 and 4 m based on geology.</p> <p>Majestic (1994 TO 1996) RC sampling was on 1 m intervals from a cyclone and riffle split to 75:25 to produce a 2 to 3 kg sample. Some (10 to 20 %) of the RC drilling is logged as wet or moist. Foam was used to improve wet sample recovery. Wet samples were split by taking a grab sample. Majestic diamond core was by PQ triple tube, and fillet sampled by grinding an edge of the core. This is a geochemical method only and inappropriate for resource assessment but was undertaken to preserve the core. Two hundred and fifty trial intervals were re-sampled by cutting larger fillets, 10 to 15 mm thick, from two drill-holes (GDHM03 and GDHM04) indicated a consistent bias for the grind sample to overstate the copper content by around 15%.</p> <p>Matrix (2004) RC drilling was by face sampling hammer and a rig with 300 psi and a 150 psi booster. Sampling was at 1 m intervals from a cyclone and riffle split to 75:25 to produce a 1.5 to 3 kg sample. Most of the Matrix diamond drilling was for geotechnical and metallurgical purposes. Where sampled for assaying, quarter core was used to maximise the core retained.</p> <p>QMC (2012) RC drilling was by face sampling 5 3/8 inch diameter hammer, cyclone and rotary splitter to produce one 2 to 3 kg samples with a duplicate produced each 25<sup>th</sup> sample. 900cfm/350psi compressor and 700cfm/350psi auxiliary air-compressor were used to maintain dry samples for deeper RC holes. Six diamond holes were drilled for metallurgical test work and were not assayed. Two diamond hole and two diamond tails were sampled for assaying using 1 m half core. HQ core was sampled using triple tube whilst PQ and NQ core were sampled using standard tubes. All metallurgical holes were drilled in PQ core.</p> <p>Some RC drilling prior to 2004 may have included cross-over sub configurations that were typical in the 1980's and often result in some down hole contamination.</p>

<p><i>Drilling techniques</i></p>	<p><i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></p> <p>Drilling used for resource estimation comprises both diamond core drilling (~20%) and reverse circulation (RC) drilling (~80%).</p> <p>Homestake (1988-1990) drilled 61 drill-holes (7,692 m) on a 100 m (N-S) x 20 m (E-W) grid, primarily RC with some diamond tails (mostly NQ).</p> <p>Majestic (1994-1996) drilled three campaigns, infilling to 50 m (N-S) sections, with 61 RC holes (6,489 m) and PQ diamond holes (588 m).</p> <p>Matrix (2004) drilled 46 holes, predominantly face sampling hammer RC with some diamond drilling. Additional geotechnical and metallurgical diamond holes have not been routinely sampled to preserve the core for other uses.</p> <p>Matrix (2006) drilled 2 deep holes that do not directly affect the resource estimate.</p> <p>QMC (2012) drilled 30 assayed face sampling hammer RC and 2 assayed diamond drill holes (including PQ and NQ standard tube and HQ triple tube) and 6 unassayed metallurgical PQ diamond drill holes. QMC core drilling was orientated where ground conditions allowed.</p>
<p><i>Drill sample recovery</i></p>	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></p> <p>Greenmount ground conditions are poor which are complicated by alteration and deep weathering. The water table occurs at around 40 m depth. The combination of these factors has resulted in poor recovery in places, particularly below the water table. Early percussion drilling reported some low recoveries however the data is limited. The limited data available does not cast any significant concerns for the integrity of the resource estimate.</p> <p>QMC record and average diamond core recovery of 89% for the 2012 drilling program and note water issues at the Staveley contact at the footwall of the resource. RC recovery by QMC was generally consistent and probably aided by the RC air capacity to push the water away from the bit during drilling.</p> <p>It is possible that fine chalcocite may wash out with core drilling which can under call the copper grade of a resource of this type.</p>
<p><i>Logging</i></p>	<p><i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged.</i></p> <p>Lithological drill-hole logs conform to the geological interpretation.</p> <p>Logs for other geological information are available but the format varies across the major drilling phases and the different drilling types.</p> <p>All RC and diamond holes drilled by QMC were logged at 1 metre intervals. In addition to geological logging; geotechnical, recovery and density logs were also produced for the diamond core.</p> <p>The majority of historic RC holes were re-logged by QMC from the available chip trays. Where no chip trays retained original logging reinterpreted where possible from logs. Previous diamond drilling was relogged based on original logs and core photos.</p> <p>Magnetic susceptibility and hand portable XRF assays for copper were produced for both RC and diamond holes with 3 measurements being recorded for each meter.</p>

<p><i>Sub-sampling techniques and sample preparation</i></p>	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>  <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>  <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>  <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>  <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i>  <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p> <p>Only the mineralised portions of the diamond drill holes were assayed, with the samples being collected as half core. The core was cut using a diamond saw.</p> <p>QMC RC drilling used a rotary splitter that could be adjusted to derive a consistent sample size of 2 to 3 kg. On changing rods QMC did not sample initial material to avoid potential down hole contamination.</p> <p>Chip tray samples were collected by spear sampling. The chips were then sieved and rinsed before being placed into a clearly labelled chip tray and logged.</p> <p>QMC collected bulk density measurements from whole core generally one sample per metre. Intervals to be analysed for density were selected by a geologist before being cut in order to produce a flat ended cylinder of rock. PQ core was measured for density using the dry method whereby density was calculated directly from the volume and the dry weight of the sample. HQ and NQ core was measured by the immersion method.</p> <p>The core was allowed to dry prior to density measurements, a suite of samples were collected at random and oven dried so that the moisture content of the samples could be determined, all samples had less than 1% moisture content. .</p> <p>QMC issued all samples to ALS laboratory in Townsville for sample preparation and analysis. This laboratory uses industry standard process of drying, crushing and pulverisation.</p>
<p><i>Quality of assay data and laboratory tests</i></p>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>  <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>  <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></p> <p>All available QAQC data has been assessed.</p> <p>Previous operators have only partial QAQC information, but sufficient check sampling data existing to indicate no significant assaying issues. Assaying is also limited to copper consistently and for gold, silver and cobalt in parts.</p> <p>QMC sampling and assaying in 2012 includes a multielement geochemical ICP analysis for 34 elements. This was supplemented with ore grade analyses for contiguous runs of higher grade identified manually.</p> <p>QAQC sampling by QMC includes:</p> <ul style="list-style-type: none"> <li>▪ RC duplicates collected in the field from a second rotary split at 1 in 50 samples</li> <li>▪ Diamond core duplicates at 1 in 50 samples</li> <li>▪ Certified reference material (standards) at 1 in 25 samples</li> <li>▪ Blank material at 1 in 50 samples</li> <li>▪ Reassay of ore grade samples using a second more accurate method</li> <li>▪ Reassay of selected samples for copper sequential analysis</li> </ul>

<p><b>Verification of sampling and assaying</b></p>	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i>  <i>The use of twinned holes.</i>  <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>  <i>Discuss any adjustment to assay data.</i></p> <p>Greenmount have been explored by a series of operating companies which include Homestake, Majestic, Matrix Metals and now QMC. No significant differences between the exploration results from the different operators are noted.</p> <p>Higher grade zones drilled by QMC have been assayed using three separate assay methods that include a geochemical ICP analysis, an ore grade ICP analysis and a sequential copper analysis. All assaying by ALS indicated similar assay results.</p> <p>Matrix completed 10 twin drill holes in 2004 to verify the resource.</p> <p>Golder audited the drilling database in 2004.</p>
<p><b>Location of data points</b></p>	<p><i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>  <i>Specification of the grid system used.</i>  <i>Quality and adequacy of topographic control.</i></p> <p>Accurate topography for Green mount is available from a previous LiDAR survey and 1 m contours over the resource area.</p> <p>Majestic established the current local grid and 83 permanent survey stations. They surveyed previous work and subsequent workers have continued to use the same markers and grid system to survey all subsequent drilling. Prior to QMC all surveying was by registered surveyors and completed at the time of drilling. In 2012 QMC used DPGS and local survey stations to survey all additional drill collars.</p> <p>No significant difference between the LiDAR topography data and existing collars surveys is evident.</p>
<p><b>Data spacing and distribution</b></p>	<p><i>Data spacing for reporting of Exploration Results.</i>  <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>  <i>Whether sample compositing has been applied.</i></p> <p>Initial drilling on 50 x 20 m spacing has now been largely closed down to 25 x 20 m spacing over an area of roughly 600 m north-south and 200 m east-west. The drilling density is considered sufficient for Measured Mineral Resource where the drilling is consistently at a spacing of 25 x 20 m.</p> <p>Sampling is generally on 1 m intervals for most drilling. Compositing to 1 m intervals was used to match earlier conditional simulation work that is the basis of the volume variance adjustments for mining selectivity. Some old drilling has 2 m samples that will have some sample deflation. The relative effect of the sample deflation is not considered significant.</p>
<p><b>Orientation of data in relation to geological structure</b></p>	<p><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>  <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></p> <p>Drilling has been completed on a local grid established at a rotation of 52° from true north.</p> <p>Drilling is generally angled at 60° to the west to intersect the mineralisation that dips at 60° to 80° to the east.</p> <p>The local grid and typical drilling angle provide an intersection angle that is best practical arrangement for cross cutting the resource to derive the resource samples.</p>

<p><i>Sample security</i></p>	<p><i>The measures taken to ensure sample security.</i></p> <p>Sample and core were transported directly from site to the QMC core yard at Cloncurry. When sampled for assayed the samples were sent directly to ALS in Townsville. Sample submission sheets issued by QMC were used by ALS to confirm the sample receipt.</p> <p>RC chip trays and remaining drill core are stored in a secured compound at Cloncurry.</p>
<p><i>Audits or reviews</i></p>	<p><i>The results of any audits or reviews of sampling techniques and data.</i></p> <p>Greenmount underwent a number of reviews and audits for previous feasibility studies by Majestic in 1996 and 1999 and Matrix in 2005/2006. These included independent resource estimates by Hellman and Schofield (2004), and Golder (2004, 2010, 2013)</p> <p>Golder completed a site visit of the Matrix exploration work in 2004 and undertook database audit in 2004.</p>
<p><i>Mineral tenement and land tenure status</i></p>	<p><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></p> <p><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></p> <p>The Greenmount deposit lies within a granted mining lease ML90134 which is held by White Range Mines Pty Ltd a 100% subsidiary of QMC. The mining lease is valid for copper, gold, silver and cobalt. It falls due on 30 Jun 2014 and covers 1 207 hectares. QMC indicates there are no significant liabilities on the property and that they know of no reason that this mining lease should not be extended when applied for.</p>
<p><i>Exploration done by other parties</i></p>	<p><i>Acknowledgment and appraisal of exploration by other parties.</i></p> <p>Little is known of the early Greenmount exploration and mining history. Small-scale mining has taken place from a shaft sunk to around 30 feet (9.1 m) and there are numerous small surface pits and trenches nearby. The production from these workings is unknown. Significant previous exploration covering the Greenmount deposit includes:</p> <ul style="list-style-type: none"> <li>▪ 1954 National Lead Company complete one drill hole</li> <li>▪ 1983 Carpentaria Exploration Company Pty. Ltd. Completed mapping and 72 RAB holes</li> <li>▪ 1988-1990 Valdora Minerals and Homestake explored a group of tenements with mapping, ground magnetic surveying, soil and stream sampling, 352 RAB holes, 66 RC holes totalling 6,388 m (includes RC pre-collars) and 12 diamond drill-holes totalling 1,304 m of coring.</li> <li>▪ 1996-1999 Majestic completed a feasibility study as well as Two RC drilling phases of 61 holes totalling 6,589.5 m and 5 diamond holes totalling 587.80 m</li> <li>▪ 2000-2004 Matrix undertook additional infill RC drilling. Diamond drilling was primarily undertaken for geotechnical and metallurgical purposes. The infill RC drilling included 40 holes totalling 3,134 m with diamond comprising 24 holes totalling 2,016 m. The diamond drilling was made up of 12 holes (958 m) for metallurgical sampling, 2 holes (140 m) for twinning of earlier RC holes and 10 holes (918 m) for geotechnical data. The 2004 drilling database was used for the White Range feasibility study and updated with additional elements estimates in 2010.</li> </ul>
<p><i>Geology</i></p>	<p><i>Deposit type, geological setting and style of mineralisation.</i></p> <p>The mineralisation is centred on an alteration and veining zone. The IOGC style of mineralisation and structural control are within that expected in the Mount Isa Inlier and similar to other deposits in the Cloncurry area.</p>

<i>Further work</i>	<p><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p> <p><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p> <p>Further work will need to concentrate on metallurgy and mining evaluations.</p>
<i>Database integrity</i>	<p><i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i></p> <p><i>Data validation procedures used.</i></p> <p>The project has been reviewed and audited in several occasions, including independent consultants Hellman and Schofield in 2004 and Golder in 2004. Golder completed a database audit against available hard copy and digital information in 2004.</p>
<i>Site visits</i>	<p><i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></p> <p><i>If no site visits have been undertaken indicate why this is the case.</i></p> <p>Doug McLean is the Exploration Manager for QMC and supervised all QMC exploration activities visiting site on numerous occasions in 2012 and 2013.</p> <p>Mr Tony Martin is the CEO of QMC and visited site on several occasions to review field work during 2012 and 2013.</p> <p>John Horton is the Principal Geologist at Golder Associates Pty Ltd. He has supervised all resource evaluation aspects and last visited site 2004 during previous exploration work by Matrix Metals.</p>
<i>Geological interpretation</i>	<p><i>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</i></p> <p><i>Nature of the data used and of any assumptions made.</i></p> <p><i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></p> <p><i>The use of geology in guiding and controlling Mineral Resource estimation.</i></p> <p><i>The factors affecting continuity both of grade and geology.</i></p> <p>Resource boundaries are based on a combination of the logged lithology and assay results to derive the current alteration and geological interpretations. These were based on detailed interpretation by Matrix Metals and relogging and reassessment by QMC. The Alterations zones are interpreted to include two discontinuous units broken by faulting and identified by some logging, reinterpretation and review of assays. This constrains the high grade mineralisation into domains that have reasonable continuity but which do thin or disappear in dip and strike extent. Folding is modelled in the Staveley contact and has potentially complicated the alteration and mineralisation system with the synclinal structure potentially explaining the loss of significant mineralisation at depth in several sections and potentially limiting the depth of the deposit.</p>
<i>Dimensions</i>	<p><i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></p> <p>Greenmount has an extent of about 840 m along strike, up to 250 m down dip and dips towards the local grid east at ~65°. The width of the overall mineralisation, including low grade is around 100 m near surface and generally narrows to 25 m at depth. The higher grade mineralisation occurs as up to two parallel dipping tabular alteration zones with a horizontal width of 10 to 20 m. Higher grade internal zones can be slightly steeper dips than the overall geometry.</p>

<p><i>Estimation and modelling techniques</i></p>	<p><i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></p> <p><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></p> <p><i>The assumptions made regarding recovery of by-products.</i></p> <p><i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></p> <p><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></p> <p><i>Any assumptions behind modelling of selective mining units.</i></p> <p><i>Any assumptions about correlation between variables.</i></p> <p><i>Description of how the geological interpretation was used to control the resource estimates.</i></p> <p><i>Discussion of basis for using or not using grade cutting or capping.</i></p> <p><i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></p> <p>A block model was constructed from the geological interpretations and LiDAR topography with multiple cell dimensions. The parent block size for Greenmount mineralisation is 5 x 6.25 x 5 m with some sub-blocking used for volume estimation purposes. Grade estimation is by median indicator kriging with post estimation adjustments for a selective mining unit size (SMU) of 3 x 5 x 2.5 m. This represents the smallest likely mining unit that could be implemented for open pit mining and the most selective practical resource estimate. Estimates were undertaken in a single search pass with up to 40 one metre composites allowed with octant searching.</p> <p>Outlier samples within the drill hole sample data were restricted by applying top-cut values determined from summary statistics. The top-cut values represent of 10% copper and 6% copper were applied for altered and unaltered domain groups respectively.</p> <p>The grade estimates were validated by visual inspection of the model and comparison of the resource to statistics and to composite grade distributions. The estimate was also compared with the previous Mineral Resource.</p>
<p><i>Moisture</i></p>	<p><i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></p> <p>All density samples are calculated on a dry basis and dry bulk density used for the resource estimate.</p>
<p><i>Cut-off parameters</i></p>	<p><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></p> <p>A Cut-off grade of 0.2% Cu is used. This corresponds to the lower range of likely operating costs for a heap leach copper operation.</p>
<p><i>Mining factors or assumptions</i></p>	<p><i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i></p> <p>Indicator kriging estimates require the application of a block adjustment factor for a mining scenario. The smallest mining unit (SMU) selected of 3 x 5 x 2.5 m represents the smallest practical mining selectivity for open pit mining. The adjustment factors are based on 1m composites and a conditional simulation study completed by Golder in 2004. The simulation study provides the best greenfield approach to estimating mining selectivity and provides a good basis for a selective mining assessment. Consequently the estimate is based on high quality grade control practices (e.g. high density RC drilling, QAQC sample preparation and assaying procedures, visual geological control, and efficient production practices are employed) so that dilution may be minimised.</p>

<p><i>Metallurgical factors or assumptions</i></p>	<p><i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></p> <p>For heap leach processing for copper QMC currently estimated expected recoveries of 80% for oxide and transition material. Gold, silver and cobalt are not recoverable with a standard acid heap leach process but could be recovered with alternative methods.</p> <p>Copper sequential analyses completed by QMC indicate some patches of fresh sulphide material where acid leach recovery may be lower or problematic. This is consistent with logging and tends to correlate with higher grade material. Alternative processing of this material may be feasible by trucking such ore to an existing flotation mill in the region where recovery of both copper and gold would be expected. In these cases the additional recovery of gold and possibly cobalt may offset the transport cost.</p>
<p><i>Environmental factors or assumptions</i></p>	<p><i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></p> <p>Previous mining at Greenmount is both very old and has minor surface impact.</p> <p>QMC have commenced rehabilitation of the 2012 drill sites.</p> <p>Considerable work was undertaken on sourcing water for the heap leach process in 2004 for the Matrix Metals White Range Feasibility study.</p> <p>QMC commenced sulphur analyses in 2012 to assist in future waste modelling.</p>
<p><i>Bulk density</i></p>	<p><i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></p> <p><i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i></p> <p><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></p> <p>Previous density measurements have concentrated on some core bulk density determinations (110) and numerous pycnometer specific gravity measurements (643). The pycnometer measurements are not considered appropriate for estimating in-situ bulk density for resource estimation and have been excluded.</p> <p>In 2012 QMC undertook a number of additional bulk density whole core determinations (608) with both standard water immersion methods for resource drilling and whole core direct measurement for PQ metallurgical drill holes.</p> <p>Assumed bulk density for resource purposes are slightly lower than measured density to account for potential sample selection bias and minor surface porosity on core samples.</p>



<p><i>Classification</i></p>	<p><i>The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit.</i></p> <p>The resource was classified into four categories using drill-hole spacing and, where drill-hole spacing was variable, data density. Specific estimation runs were completed to measure the drilling and sampling density and spacing throughout the combined altered and unaltered domains. These were then interpreted on section and wireframed to construct coherent zones of demonstrated data density. The effect was to implement classification as follows:</p> <ul style="list-style-type: none"> <li>▪ Measured Mineral Resource for alteration zones that demonstrate grade continuity and drilled at a 25 x 20 m spacing, or otherwise</li> <li>▪ Indicated Mineral Resource drilling at a 40 x 20 m spacing or otherwise</li> <li>▪ Inferred Mineral Resource if interpreted as a mineralised domain or otherwise</li> <li>▪ Unclassified if interpreted as unmineralised rock types.</li> </ul>
<p><i>Audits or reviews.</i></p>	<p><i>The results of any audits or reviews of Mineral Resource estimates.</i></p> <p>In 2004 Hellman and Schofield assessed the sampling and assaying quality, and validated the drill hole database.</p> <p>Subsequently in 2004 Golder carried out data checks for all samples &gt;5% Cu. Apart from 5 Homestake samples, all high-grade samples were traced back to the original assay certificates and found to be correct in the digital drill hole database.</p> <p>QMC undertook some review and correction of the drilling database though this is not well documented and believed not to include cobalt and silver analyses.</p> <p>Previous work has concentrated on copper as the principal element of study. Consequently previous database audits have not included other elements such as cobalt, gold and silver.</p>
<p><i>Discussion of relative accuracy/ confidence</i></p>	<p><i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></p> <p><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></p> <p><i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></p> <p>The classification of the resource reflects the accuracy of the estimate, data and interpretation. The deposit has a relatively tight drilling pattern within areas that were previously defined within the 2005 pit design by Matrix. The 2012 QMC drilling has targeted Inferred Mineral Resource areas that include both wide spaced drilling within the previous open pit design and down dip extrapolation. Some deeper extrapolated areas were closed out or drilled to a narrow width than expected. The loss of Inferred Mineral Resource in these areas as they have been upgraded has been partially offset by some extensions to the resource in other areas. Within the previous Matrix pit design area only some of the Inferred Mineral Resource has been converted to higher categories, however slightly higher grades were estimated and no Inferred Mineral Resource remains within the previous design.</p>

**GOLDER ASSOCIATES PTY LTD**

John Horton  
Principal Geologist

JH/MN/JH

w:\min\2013\137631004-qmc\correspondence out\137631004-003-l-rev1-greenmount\_2013.docx