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ASX Market Announcement

28 August 2017

Vulcan Mineral Resource restatement under JORC Code (2012)

Queensland Mining Corporation Limited (**ASX: QMN**) is pleased to announce a review and restatement of the Vulcan Mineral Resource under the JORC Code (2012) which was previously prepared under the JORC Code (2004).

This has entailed a review of the previous work and compliance to the JORC Code (2012) along with the compilation of the additional information not supplied in the last announcement in 2010, completed under the JORC Code (2004) (see ASX announcement dated 29 October 2010)

This review of the Mineral Resource compliance under the current reporting code will enable the current scoping study for the White Range project to proceed. Review of other Mineral Resources reported under JORC Code (2004) is now in progress and will be announced as completed.

The Mineral Resource remains unchanged for potential heap leach processing at a 0.2% Cu cut-off and comprises:

Indicated Mineral Resource	***1.05 Mt @ 0.65% Cu, 130 ppm Co***
Inferred Mineral Resource	***0.36 Mt @ 0.63% Cu, 270 ppm Co***
Total Mineral Resource	***1.42 Mt @ 0.65% Cu, 170 ppm Co***

For comparison purposes the Mineral Resource is also reported at the higher 0.5% Cu cut-off more suitable for other processing methods, as:

Indicated Mineral Resource	***0.44 Mt @ 1.09% Cu, 130 ppm Co***
Inferred Mineral Resource	***0.19 Mt @ 0.89% Cu, 270 ppm Co***
Total Mineral Resource	***0.63 Mt @ 1.03% Cu, 170 ppm Co***

Cobalt assays are only partially available and cobalt should only be considered as indicative and is only included for consistency in reporting QMC projects. In addition, current copper heap leach processing options being considered do not recover cobalt.

Introduction

The Mineral Resource was originally estimated by Matrix Metals Limited (Matrix) in 2005 as part of the White Range Feasibility study being undertaken by Matrix using Ordinary Kriging. Matrix went into liquidation in 2008 and the Vulcan project was acquired by QMC in July 2010.

In 2010 QMC engaged Golder Associates (Golder) to update the Mineral Resource model for an extended model area, updated geological interpretation and additional elements including cobalt.

Estimation by Golder used median Indicator Kriging (IK) with a change of volume support to represent the expected mining selectivity. The change of support was supported by variogram analysis and more detailed conditional simulation studies at Greenmount and Kuridala. Matrix geologists undertook the geological interpretations and Golder assessed the geological zones and incorporated them into the geological control during grade estimation to reflect the geological understanding provided by Matrix.

The Mineral Resource estimated by Golder was for a 3 by 5 by 2.5 m (X, Y, Z dimensions) mining selectivity.

There has been no additional drilling at Vulcan since 2010 that would affect the Mineral Resource hence the 2010 estimate is still current.

Location

The Vulcan Mineral Resource lies 36 km south of Cloncurry, Qld (**Error! Reference source not found.**) and lies within the mining lease ML2519. ML2519 is 100% held by QMC and covers an area of 4.05 hectares.

Vulcan is close to the Greenmount deposit (3 km east), the flagship deposit of the White Range project held by QMC. Hence Vulcan is considered a satellite deposit for the White Range project.

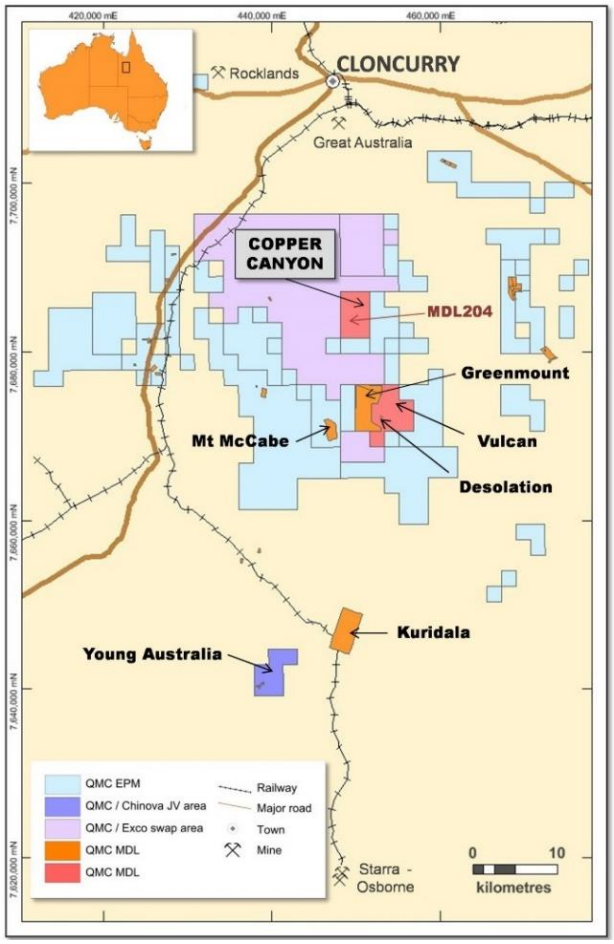

Figure 1: Project location

Heritage

Vulcan is an oxide predominantly malachite deposit, which was historically mined from 1905 to 1931. Records indicate underground workings extend to 46 m but there is no information on the depth and location of the workings other than two drill holes (VP13 and VP14) intersecting a 2 m downhole width of stope void and surface expressions.

The Mineral Resource estimate has not been depleted for historic workings which are assumed to be relatively minor. All drilling postdates historic mining.

Geology

The Vulcan deposit contains copper oxide mineralisation predominantly in the form of malachite and is hosted in the base of the Marimo Slates at the contact with the Staveley/Corella Formations, which form part of the Eastern Fold Belt of the Mount Isa Inlier.

In the vicinity of the historical Vulcan mine workings the Marimo Slates comprise black shale with varying amounts of graphite, chert, quartz veins and minor siltstones. Basement rocks consist of a biotitic meta-siltstone, which has been logged as amphibolite with more calcareous units to the SE. At the base of the Marimo a siltstone unit, often cherty and brecciated with quartz veining, forms the contact zone suggesting a low angle faulted contact. However, there is little change in bedding orientations between the two units which suggest that the Marimo is at least in part conformable with the underlying Staveley Formation (Figure 2).

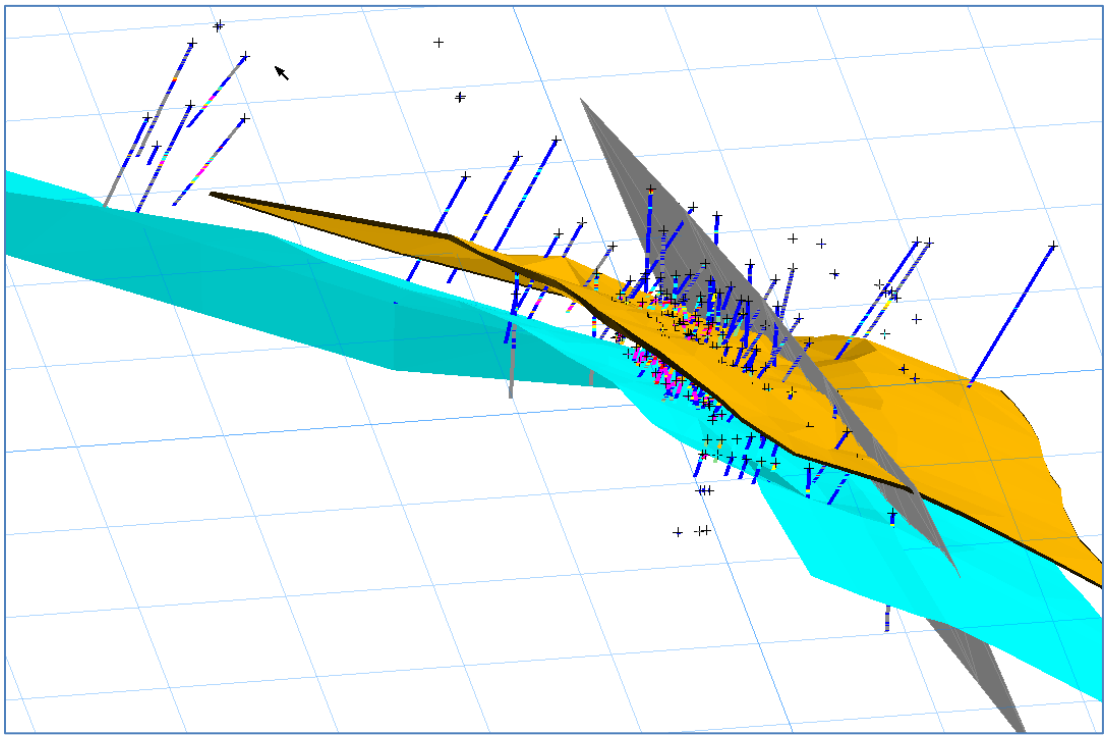

Figure 2: Oblique view of geology and drilling looking north-northeast showing the basal contact (blue), upper chert unit (yellow), inferred fault and drill holes

Copper mineralisation is largely confined to black shale and fractured cherts and is strongly associated with kaolinite alteration and to a lesser extent silicification and iron staining. Higher grade mineralisation is often associated with two sets of fracturing and shearing and subsequent quartz and malachite veining. One which parallels bedding and trends north west with a low angle dip of 20 to 30 degrees to the north-east and a steeper near vertical to north-west dipping set that cross cuts bedding and trends to the north east. Mineralisation occasionally occurs in the top of the basement biotitic unit, usually in shearing below zones of higher grade mineralisation and is most likely secondary leaching of copper into fractures.

Drilling and sampling

Exploration commenced with CEC (now Glencore) in 1963 with one diamond and 7 percussion holes. Powder Metals Australia Ltd (PMA) in the 1980s undertook two drilling campaigns of percussion and Airtrack drilling. In 1996 Majestic completes a small RC program to verify the previous drilling and provide some infill. In 2005 Matrix extended the area of drilling in strike and depth.

PMA sampling is not documented but the Airtrack drilling was sampled on 2 m intervals and the drilling was completed on 10 m spacing. Majestic and Matrix RC drilling used standard sampling methods on 1 m intervals. Diamond core used for metallurgical sampling was fillet sampled.

The Vulcan exploration database includes 191 drill holes for 6,028 m. This excludes the CEC drilling that could not be located accurately. Table 1 and **Error! Reference source not found.** subset the drilling relevant to the Mineral Resource area and excludes a number of short drill holes or uncertain origin, and includes predominantly RC and older Airtrack and percussion drilling with 136 drill holes for 5,848 m.

Table 1: Vulcan Mineral Resource drilling summary

Company	Year	Hole Type	Drill Holes	Drilled Metres	Sample Length (m)
PMA	1986	Airtrack	62	1,065	2
PMA	1988	Percussion	14	521	1
Majestic	1995	RC	12	369	1
Majestic	1995	DD	2	71	1
Matrix	2005	RC	48	3,903	1
Total			**138**	**5,928**	

For the Mineral Resource the majority of the drilling was by percussion methods and includes:

- Open hole Airtrack 18% by PMA in 1986
- Percussion 9% by PMA in 1986
- Face Sampling RC 6% by Majestic in 1996
- Face Sampling RC 66% by Matrix in 2006

Only two diamond holes are available and believed to have been fillet sampled and used for metallurgical sampling and density measurement.

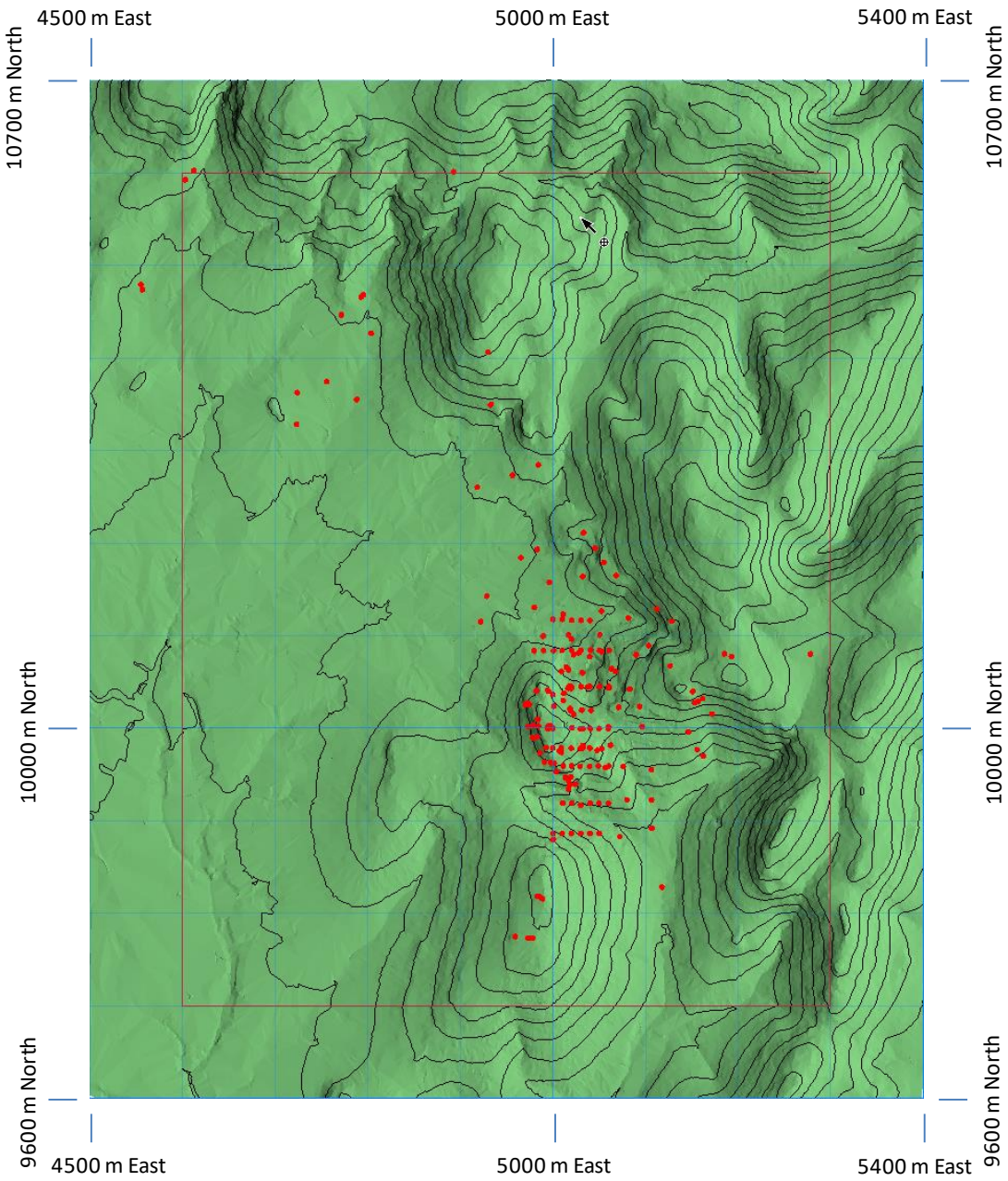

Figure 3: Vulcan drilling plan and 5 m topography contours

PMA paired four Airtrack and percussion holes and Majestic twinned these and an additional percussion hole. Golder (2010) reviewed the 22 twin drill holes between the two main percussion programs and concluded that only the earliest drilling had an apparent under call in copper grade. They determined this was likely to impact the total Mineral Resource by 1% to 2%.

Initial Majestic assaying was by a digest of aqua regia and hydrofluoric acid, followed by an AAS finish. QAQC was reported in the earlier feasibility studies though much of the data is no longer available for analysis. There were indications a small subset of the assays may have suffered from incomplete digestion and it is unclear if this was rectified or persists in the current database.

Later Majestic assaying used a larger 20 g charge, two acid Aqua Regia digest, 2 hr digestion at 150°C to 180°C and an AAS finish. A subset of 298 samples used a more robust three acid digest and reported 3.5% higher copper grade.

Matrix re-assayed a number of drill holes using sequential copper analyses. These proved useful to identifying the copper minerals and modelling of the oxide, transition and fresh weather types.

Estimation

A block model was constructed with 10 m by 10 m by 5 m parent blocks, sub-blocked down to 5 m by 5 m by 2.5 m. Mineralisation domains were defined using a 0.1% Cu cut-off and are displayed in Figure 4 and Figure 5.

Block grade estimates for copper were undertaken using median indicator kriging, a probabilistic estimation method with a change of support to reflect the assumed mining selectivity of 5 by 3 by 2.5 m, using 1 m composites. A three pass search pass was used to assist data declustering with a maximum of 4 composites per drill holes and 32 composites in total. An example block model section was presented in 5.

Due to a lack of data Au was not estimated and Co was estimated independently by Ordinary Kriging. Only 40% of Cu grades have a Co assay to provide indicative result for cobalt.

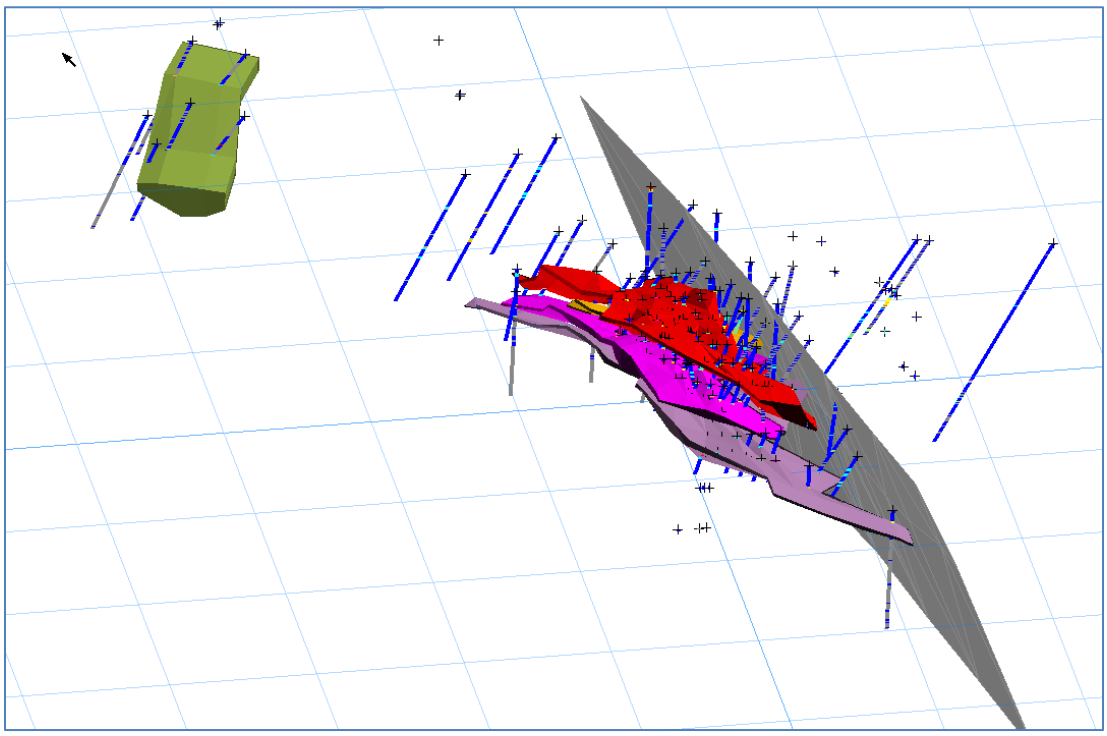

Figure 4: Oblique view of mineralisation domains and drilling looking north-northeast showing the five copper domains, drill holes and inferred fault

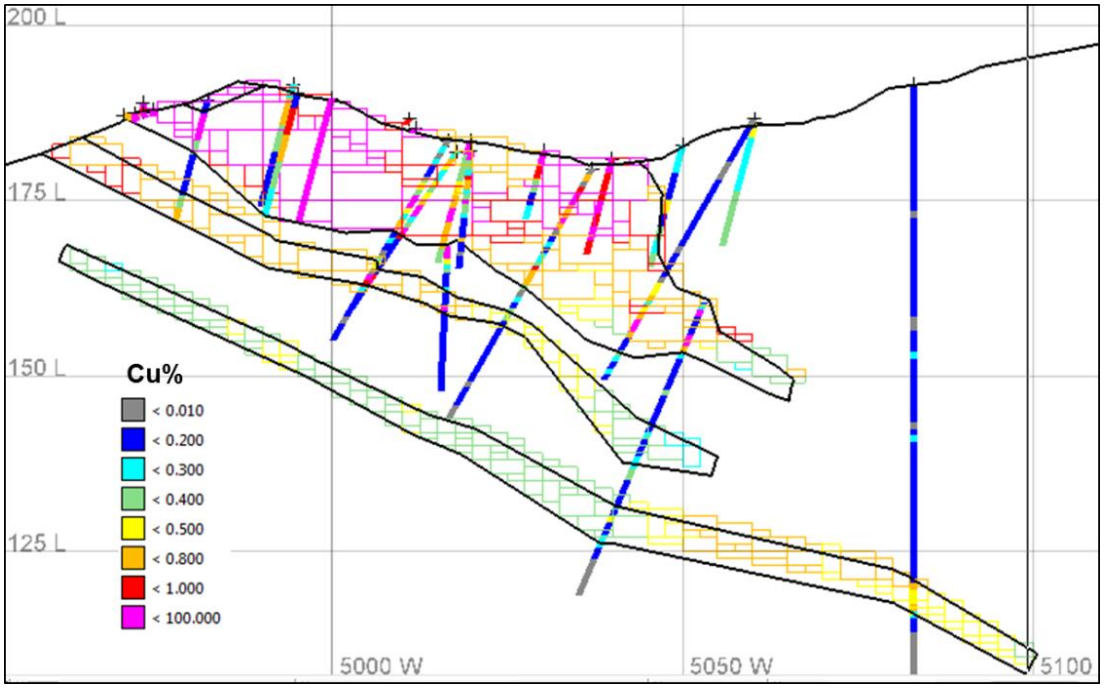

Figure 5: Section 10040 N displaying drill hole and block average copper grade

Classification

Classification was assigned to the model on the basis of the estimation outputs that help to measure sample spacing and arrangement.

- Indicated 3 drill holes with samples <60 m average distance within four of the five resource domains
- Inferred otherwise and inside a mineralisation domain

Mining

The Mineral Resource defines a central higher grade core that will be amenable for a small open pit development. Open pit mining using traditional bench excavation techniques is anticipated. The pit will be small and historic workings should be small enough to be able to be managed during mining.

Metallurgy

Test work from 1998 and 2004 is limited due to modest deposit size of Vulcan.

The results indicate good leaching characteristics for with 92% recovery with 7 kg/t acid consumption. These results will be relevant to the oxide material which was the focus of the previous work.

Extension of the Mineral Resource into primary material by Matrix represents 47% of the current Mineral Resource. The leaching characterises for this material is not defined.

Cut-off grade

A 0.2% Cu cut-off is adopted for Mineral Resource reporting. This is consistent with previous reports and current studies by QMC for viable open cut mining and copper heap leach extraction.

Cobalt is not currently recoverable by heap leach.

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Competent Person's Statement:
The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Dr Guojian Xu, a Member of Australasian Institute of Mining and Metallurgy. Dr Xu is a consultant to Queensland Mining Corporation Limited through Redrock Exploration Services Pty Ltd. Dr Xu has sufficient experience deemed relevant to the style of mineralization and type of deposit under consideration and to the activity, which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting Results, Mineral Resources and Ore Reserves. Dr Xu consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

This Mineral Resource estimate was reviewed and the statement compiled by Mr John Horton, Principal Geologist, who is a Fellow and Chartered Professional of the Australasian Institute of Mining and Metallurgy and a full time employee of ResEval 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'. Mr Horton consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Appendix A JORC Table 1 assessment for Vulcan

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	Exploration commenced with CEC (now Glencore) in 1963 with one diamond and 7 percussion holes. Powder Metals Australia Ltd (PMA) in the 1980s with two drilling campaigns of percussion and Airtrack drilling. In 1996 Majestic completed a small RC program to verify the previous drilling and provide some infill. In 2005 Matrix extended the area of drilling in strike and depth with an RC program. PMA sampling is not documented but the Airtrack drilling was sampled on 2 m intervals and the drilling was completed on 10 m spacing. Majestic and Matrix RC drilling used regular sampling methods on 1 m intervals. Majestic RC holes were sampled at 1 m intervals. Drill cuttings were collected via a cyclone then cone or riffle split 75:25 to <3 kg. The cyclone, container and splitter were cleaned after each sample was taken. No wet samples were encountered by Majestic whilst drilling the reverse circulation holes. Matrix RC drilling mostly used a 5.25 inch bit UDR 650 rig. 1 m samples were selectively submitted for analysis. Sampling was initially by a cone splitter and subsequently by riffle splitter. Majestic Diamond core was fillet sampled but also twin RC holes.
Drilling techniques	The Vulcan exploration database includes 191 drill holes for 6,028 m. This excludes the CEC drilling that could not be located accurately. Drilling relevant to the Mineral Resource area excludes a number of short drill holes or uncertain origin, with 136 drill holes for 5848 m of predominantly RC or older Airtrack and percussion drilling and including: • Open Hole Airtrack 18% by PMA in 1986 • Percussion 9% by PMA in 1986 • Face Sampling RC 6% by Majestic in 1996 • Face Sampling RC 66% by Matrix in 2005 Two diamond core holes by Majestic were used for metallurgical sampling was fillet sampled and density measurement.
Drill sample recovery	None of the previous reports discuss percussion recovery however early drilling indicated no wet samples that might impede sample recovery.
Logging	Percussion samples for all programs were logged for basic information on geology, alteration and minerals.
Sub-sampling techniques and sample preparation	PMA sampling processes are not described. Majestic samples were prepared and assayed at Analabs, Townsville. Preparation was by method GP032 where samples were oven dried and then pulverised to a product nominally passing 75 microns. Matrix sample preparation and assaying was by SGS in Townville though not described the process would expect to follow typical commercial laboratory preparation methods.

Criteria	Commentary
Quality of assay data and laboratory tests	Majestic in 1999 noted quality control including • Four diamond RC twins • Diamond fillet samples were checked with half core for 2 of the holes with good correlation for Cu and Co. • Six RC holes were re-assayed with very high correlation coefficients. • Selective RC samples were re-assayed by several different methods. • Re-assaying of selective diamond samples by two different methods. Majestic assaying was generally by Analabs GA140 2 acid digest AAS method using 0.3 g for Cu and Co. Majestic assay checks using a range of methods indicate an understatement of Co. Matrix assaying was at Analabs in Townsville for Cu and Co by method GA145 Matrix adopted quality sampling checks that included regular insertion of blanks (179) and standards (174). The results are considered acceptable with one apparent sample mix-up. Matrix duplicates were taken by presplitting the RC samples at a later stage by spear sampling or riffle splitting. Duplicates were sent to ALS for analysis for Au by fire assay and Cu, Co multielement analysis by ICP (ME-ICP41/61). These display acceptable variance for both riffle and spear resplits. The correlations indicate the primary splits and assay are reasonable.
Verification of sampling and assaying	Majestic completed 4 diamond holes that twinned RC. This produced moderate correlation coefficients of 40 to 60% a result that is not unexpected for the breccia pipe deposit. Twins by Majestic and Matrix were assessed by Golder and raise not significant concerns.
Location of data points	Majestic in 1996 completed an EDM survey of the project area and established 13 permanent survey markers using an independent local registered surveyor. Majestic resurveyed a third of the previous PMA drilling. These were used to adjust the other PMA coordinates. Matrix holes were located using hand held GPS and surveyed on completion with DGPS with reference to the EDM survey stations previously established. Collars were resurveyed by a registered surveyor to improve the elevation control. Early drilling is short and has no down hole surveys. Matrix RC drilling was single shot surveyed on completion.
Data spacing and distribution	The central area is drilled at roughly 10 by 20 m spacing and widening to 40 m less regular sections to the north and south and roughly 40 by 40 m down dip at depth.
Orientation of data in relation to geological structure	Drilling is generally angled towards the west intersection of the east dipping mineralisation at an optimal angle to the overall structure. A handful of south dipping drill holes still provide a reasonable angle of intersection.
Sample security	There are no references to sample security and the drilling was undertaken at a time when security was generally not considered.
Audits or reviews	No specific audits have been reported.

Criteria	Commentary
	Vulcan was drilled and assessed by three separate companies that included internal review and some twin drilling for verification. Independent resource estimates were undertaken by consultants including: • Amdad in 1999 • Hellman & Schofield in 2004 • Golder Associates in 2010

Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	The Vulcan deposit sits well inside the granted mining lease ML2519 which covers 4.05 hectares.
Exploration done by other parties	All drilling was done by previous parties as indicated in the drilling description.
Geology	Vulcan is related to the extension of the Mount ore fault that hosts a number of copper-gold deposits. The main deposit is breccia mineralisation with the controlling faults that are steep to vertical and the breccia pipe is similarly oriented. The pipe lies on a major contact between Staveley Formation on its south and west, and Marimo Slate on its east and north. Most of the pipe lies within the Marimo Slate.
Drill hole Information	Exploration results are not presented
Data aggregation methods	Exploration results are not presented
Relationship between mineralisation widths and intercept lengths	Exploration results are not presented
Diagrams	A plan, overview and example cross section are included in the announcement
Balanced reporting	Exploration results are not presented
Other substantive exploration data	Majestic undertook field mapping and surface survey. This was used to help define the resource. At this stage this exploration data is largely supplanted by the drilling used in the resource estimate. Other information available, includes metallurgical drilling and sampling, previous feasibility studies, water studies and mining studies.
Further work	Vulcan has been included in several previous feasibility studies but is small and has only minor contribution. QMC is currently updating the White Range project with a scoping study.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	There is no indication of a database audit has been completed previously. Matrix compiled the data and updates in Datashed software database.

Criteria	Commentary
Site visits	Guojian Xu has visited the project several times in the past 6 years.
Geological interpretation	A nominal lower threshold of 0.1%Cu was used to define the copper domains by section interpretation and wireframing. Five Cu domains were identified. Four domains in the east dip 50-70° toward the north are assumed to be sub-parallel with bedding. The fifth is near surface and is a brecciated zone separated from the other four domains by a fault. The domains display structural continuity.
Dimensions	Vulcan has a strike length of 400 m roughly north-south and dipping 25° to the east with up to 130 m down dip length. Five parallel domains have a thickness of 25 m near surface and 2 to 4 m for the lower units. A small northern block is based on a few drill holes and is not significant to the mineral Resource
Estimation and modelling techniques	Estimations for total copper were by median indicator kriging and used a block adjustment to derive a recoverable resource estimate. A 3 pass search ellipsoid was used with: • 50 by 50 by 15 m • 100 by 100 by 30 m • 200 by 200 by 60 m The wider searches were used to ensure minor elements such Co were adequately informed. A maximum of 4 composites per drill holes and 32 composites in total. Au was not estimated due to data paucity. Additional value potential from cobalt has been estimated independently using Ordinary Kriging. 40% of Cu grades have a Co assay. Resources have been estimated assuming a tight grade control drilling definition that can support the small 5 by 3 by 2.5 m selective mining unit assumed for the estimate. It is believed that additional control for higher-grade areas may be able to be provided on a visual basis. This will minimise grade control and mining mistakes for the higher value portions of the resource. However, the likely marginal cut-off grade is expected to be around 0.3% Cu. At these grades, grade control definition will be necessary to define the assumed selectivity. Ordinary Kriging (OK) estimates were undertaken for Cu for validation purposes and for Co and bulk density. The MIK and SMU model was validated • visually • comparison to OK estimates • reviewing estimation quality parameters • using MIK – composite distribution comparison before SMU adjustment.
Moisture	Bulk density estimates and tonnages are on a dry basis.

Criteria	Commentary
Cut-off parameters	A 0.2% Cu cut-off is adopted for Mineral Resource reporting. This is consistent with previous reports and current studies by QMC for viable open cut mining and copper heap leach extraction.
Mining factors or assumptions	The Mineral Resource defines a central higher grade core that will be amenable for a small open pit development. Open pit development will be small and restricted by minimum mining widths Mining selectivity is defined by the domain interpretation and the block grade estimates.
Metallurgical factors or assumptions	Limited test work due to modest deposit size of Vulcan. Test work includes: • PMA in 1988 undertook limited short leach test with modest acid consumption <10 kg/t • HRL tests 1998 reported 94% acid soluble copper, 'competent' ore in leach, • Additional HRL tests indicated >95% recovery with low acid consumption • SDF in 2004 tested leach of agglomerates with 93% recovery noting slower leaching of chrysocolla The results indicate good leaching characteristics for 92% recovery with 7 kg/t acid consumption. These results will be relevant to the oxide material which was the focus of the previous work. Extension of the Mineral Resource into primary material by Matrix represents 47% of the current Mineral Resource. The leaching characterises for this material is not defined.
Environmental factors or assumptions	There are no known environmental issues
Bulk density	Majestic completed for • 403 pycnometer measurements on RC chips by Anlalabs method OM605 • 50 core samples using water displacement The results were assessed by Majestic and summarised by geology logged. Core measurements were followed by pycnometer measurements providing suitable factors for the percussion pycnometer readings for each geological unit (between 78% and 95%) and then values are assigned to all other sample intervals for estimation. Bulk density average is 2.66 t/m^3 for chert and 2.23 t/m^3 for other oxide units such as black shale.
Classification	Classification was assigned to the model on the basis of the estimation outputs that help to measure sample spacing and arrangement. • Indicated 3 drill holes with samples <60 m average distance within four of the five resource domains • Inferred otherwise and inside a mineralisation domain

Criteria	Commentary
Audits or reviews	Golder undertook an internal review of the resource estimate and the methods used.
Discussion of relative accuracy/ confidence	The Mineral Resource is calculated using probabilistic method to create a recoverable resource estimate and includes mining selectivity and grade control assumptions as described. Cobalt is not completely assayed and hence has lower confidence.