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## **ASX Market Announcement**

26 July 2016

### **Young Australian Mineral Resource Update**

Queensland Mining Corporation Limited (**ASX: QMN**) is pleased to announce an update to the Mineral Resource at the Young Australian deposit. The update includes additional drilling by QMC completed in 2012 and 2015 and the extension of the Mineral Resource into the neighbouring exploration tenement under a joint venture agreement.

At a 0.2% Cu cut-off the combined Mineral Resource comprises:

<b><i>Indicated</i></b>	<b><i>2.2 Mt at 0.93% Cu</i></b>
<b><i>Inferred</i></b>	<b><i>2.9 Mt at 0.68% Cu</i></b>
<b><i>Total</i></b>	<b><i>5.1 Mt at 0.79% Cu</i></b>

This includes the Mineral Resource subset held 100% by QMC of:

<b><i>Indicated</i></b>	<b><i>1.8 Mt at 0.98% Cu</i></b>
<b><i>Inferred</i></b>	<b><i>0.5 Mt at 0.69% Cu</i></b>
<b><i>Total</i></b>	<b><i>2.2 Mt at 0.92% Cu</i></b>

Eddy Wu, QMC's CEO, said "The Company is very happy to provide this resource update, which not only brings the status of the resource from the previous JORC 2004 to the current JORC 2012 standard but also includes a 90% increase in contained copper metal compared to the ASX release dated on 3 February 2011 for the Young Australian deposit. Such an increase in resource will provide additional support to the future production plan for the White Range project".

## Resource statement

Queensland Mining Corporation Limited (ASX:QMN) engaged ResEval Pty Ltd to complete an independent JORC (2012) Mineral Resource update for the Young Australian copper project. This follows additional drilling by QMC in 2012 and 2015 and extends the areas held by QMC under several mining leases to the surrounding exploration tenement held by Chinova Resources Cloncurry Mines Pty Ltd (Chinova) and now operated by QMC under a joint venture exploration agreement. The inclusion of the Chinova area also includes some drilling completed previously by Chinova.

Mineral Resources are estimated with all data available at June 2016 and are classified in accordance with the JORC (2012) guidelines with relevant details provided in the accompanying JORC (2012) Table 1 in Appendix A.

The Young Australian Mineral Resource at a 0.2% Cu cut-off is:

Indicated	2.2 Mt at 0.93% Cu
Inferred	2.9 Mt at 0.68% Cu
Total	5.1 Mt at 0.79% Cu

Table 1 provides the breakdown of the Mineral Resource for the 100% QMC held mining leases and the surrounding exploration tenement held by Chinova.

There are some minor potential credits from associated cobalt and silver with cobalt included in Table 1. Silver assays are not complete throughout all drilling intervals and cannot be estimated in some areas. Grades of around 2 g/t Ag at Young Australian pit area decrease to around 1 g/t Ag to the north and south.

**Table 1: Young Australian copper project Mineral Resource at 0.2% Cu cut-off by tenement**

Tenement	Indicated			Inferred			Total (Indicated + Inferred)		
	Mt	Cu %	Co ppm	Mt	Cu %	Co ppm	Mt	Cu %	Co ppm
ML7511	1.3	1.09	130	0.2	0.78	68	1.5	1.04	120
ML90084	0.4	0.70	80	0.2	0.53	134	0.6	0.65	95
ML90099	0.1	0.83	149	0.1	0.77	62	0.2	0.80	99
<b>QMC ML sub-total</b>	<b>1.8</b>	<b>0.98</b>	<b>118</b>	<b>0.5</b>	<b>0.69</b>	<b>88</b>	<b>2.2</b>	<b>0.92</b>	<b>112</b>
<b>Chinova EPM</b>	<b>0.5</b>	<b>0.75</b>	<b>50</b>	<b>2.4</b>	<b>0.67</b>	<b>70</b>	<b>2.9</b>	<b>0.68</b>	<b>66</b>
<b>Total</b>	<b>2.2</b>	<b>0.93</b>	<b>104</b>	<b>2.9</b>	<b>0.68</b>	<b>73</b>	<b>5.1</b>	<b>0.79</b>	<b>86</b>

## Location

The Young Australian Mine is located approximately 70 km south of Cloncurry in Northwest Queensland. Access is via the sealed Cloncurry to Dajarra Road to Malbon then via the public unsealed road to Selwyn, Figure 1.

The project lies within mining leases ML 7511, 7512, 90083 and 90099 held by QMC, Figure 2. The surrounding exploration tenement EPM 18912 is held by Chinova Resources. QMC have an agreement with Chinova to explore and an option to develop the six sub-blocks of EPM 18912 around the Young Australian Deposit and the QMC mining leases.

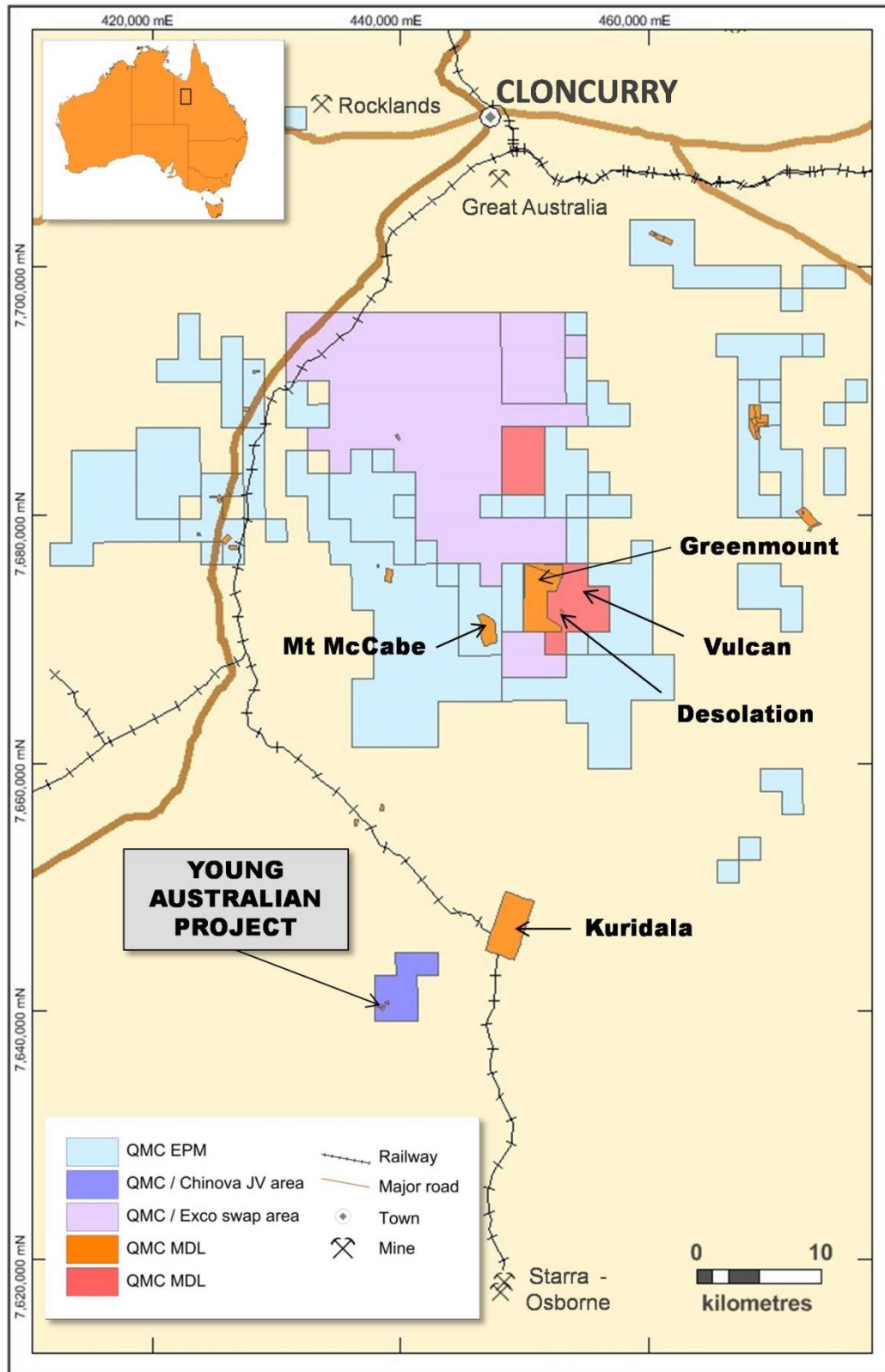


Figure 1: Young Australian project location

## Geology

The project geology is dominated by a NE-SW trending fold with a series of faults and shear zones developed on both limbs, most of which have undergone extensive hydrothermal alteration. The major stratigraphy unit is the Answer Slate of the Middle Proterozoic Mary Kathleen Group. Copper mineralisation occurs as veinlets, stockworks and disseminations within the carbonaceous shale, slate and phyllite sequence of the Answer slate, close to the contact with Wimberu Granite in the west (<1 km).

Mineralisation comprises malachite, chrysocolla, cuprite, chalcocite and chalcopyrite and strikes NE-SW while dipping steeply northwest or sub-vertically (Figure 3). Previous exploration and open cut mining have defined three separate ore zones at Young Australian, designated as East, Middle and West zones.

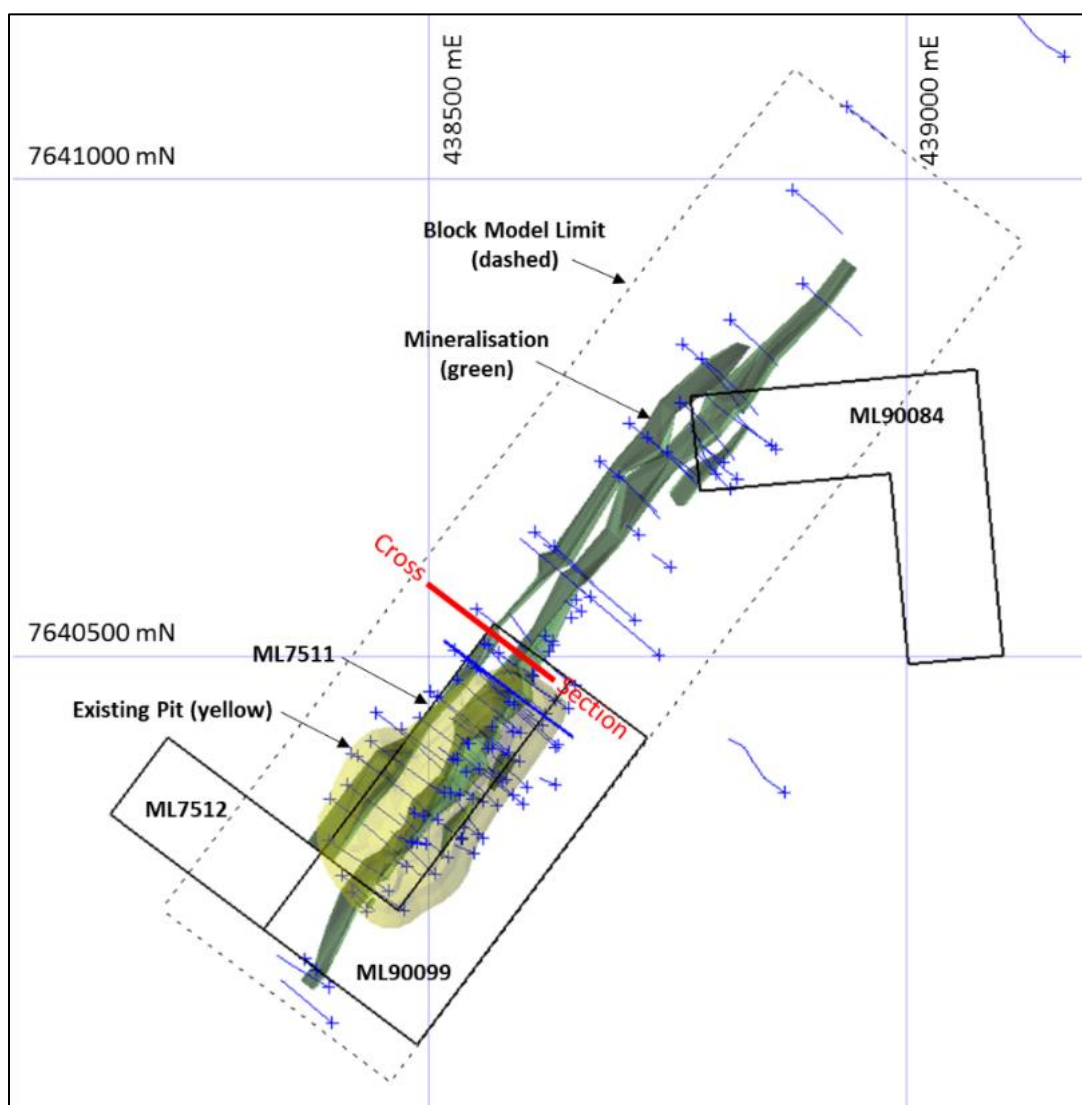
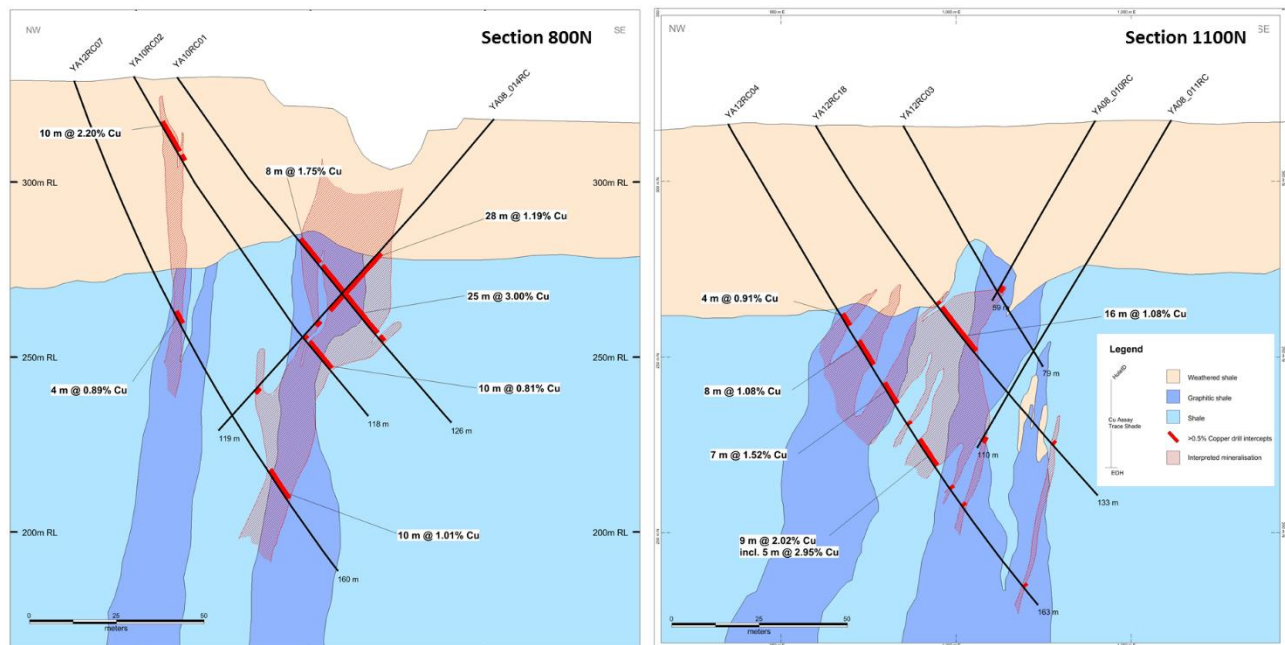


Figure 2: Mining leases, drilling and resource wireframes



**Figure 3: Geological cross sections**

## Drilling and sampling

Drilling information available for the Young Australian deposit is summarised in Figure 2, Table 2 and Appendix B and comprises:

- Historical drilling by MIM with diamond core and percussion drilled prior to previous open pit mining at Young Australian. Core samples were variable between 1 and 38 m in length. RAB samples were generally 3 m in length. Sampling, assaying, logging, QAQC and recovery details are limited.
- Chinova (formerly Ivanhoe) completed four RC drill holes in the neighbouring exploration tenement in 2010. 2 m composites were selected for analysis based on field hand held XRF results. Assaying by ALS was by aqua regia digestion and an ICP analysis.
- QMC drilling from 2008 to 2015 includes a total of 69 RC holes for 8,950 m in the project area and 56 RC holes for 7,071 m at the Young Australian deposit. 1 m samples were split at the drill rig to about 3 kg and the samples were prepared and assayed commercially by ALS in Townsville using four acid digest and ICP analysis. 2008 drilling included some selective compositing of low grade material to 2 m and 2015 drilling was selectively assayed based on anomalous field hand held XRF results.

Due to the lack of QAQC and other information to support the early MIM and to a smaller extent the Chinova drilling, the QMC drilling was used in preference to inform the Mineral Resource estimates. This largely removes the reliance on the lower quality data for Indicated Mineral Resource, particularly in the Young Australian open pit area where the MIM drilling is concentrated and is either mined out or mostly replaced by QMC drilling.

**Table 2: Drilling summary**

Company	Year	Drill Type	Name Prefix	Holes	Total Depth	Cu samples
MIM	1964-67	RAB	CGP	44	1498	478
	1964-67	DDH	CGD	9	749	27
Chinova(Ivanhoe)	2010	RC	YAR	4	830	109
QMC	2008	RC	YA08RC	15	1892	962
	2010	RC	YA10RC	23	2631	2624
	2012	RC	YA12RC	17	2397	2397
	2015	RC	YA15RC	1	151	60
<b>Total</b>				<b>113</b>	<b>10148</b>	<b>6657</b>

### Estimation

A block model was constructed with 10 m by 5 m by 5 m parent blocks and sub-blocking down to 5 m by 1.25 m by 1.25 m to represent the interpreted domain boundaries and topography. The model was rotated at 37° to align with the regional structure which controls the mineralisation.

Mineralisation domains were defined using a 0.2% Cu cut-off and are displayed in Figure 2.

Block grade estimates for copper, cobalt and silver used 2 m composites and inverse distance squared estimation method with a 1 to 10 flattening anisotropy. The search and anisotropic weighting orientations define an average plane dipping 80° to the NW and striking at 039°.

Three estimation passes were undertaken to maximise the weighting and use of the QMC drilling data.

- Pass 1 Search of 50 m by 50 m by 15 m using only QMC drilling data and a minimum of 3 composites from 3 drill holes for estimation.
- Pass 2 Search of 50 m by 50 m by 15 m using all drilling data and a minimum of 3 composites from 3 drill holes for estimation.
- Pass 3 Search of 100 m by 100 m by 30 m using all drilling data.

All estimates used a discretisation of 4 by 2 by 2 points and a maximum of 16 two metre composites.

### Resource comparison

The previous Mineral Resource estimate for Young Australian was announced by QMC on 3 Feb 2011 and included only Mineral Resources within the QMC mining leases. Table compares the previous 2011 estimates to the current estimate for the same QMC leases and in total.

QMC drilling has extended the mineralisation to depth in some places, increased the density of the drilling and extended the Mineral Resources considerably into the neighbouring Chinova exploration tenement. Infill and extension drilling by QMC largely intersected the mineralised structures where expected, improving the confidence of the structure and mineralisation. The improvement in classification reflects higher confidence and greater reliance on higher quality QMC data which is not clustered in the mined out areas. A reduction in grade for the QMC mining leases can be attributed to dominance of QMC drilling

that has replaced less reliable MIM drilling. However an improvement in the orientation of the search and weighting orientations to better align with the mineralising structure may also have contributed.

**Table 3: Mineral Resource comparison**

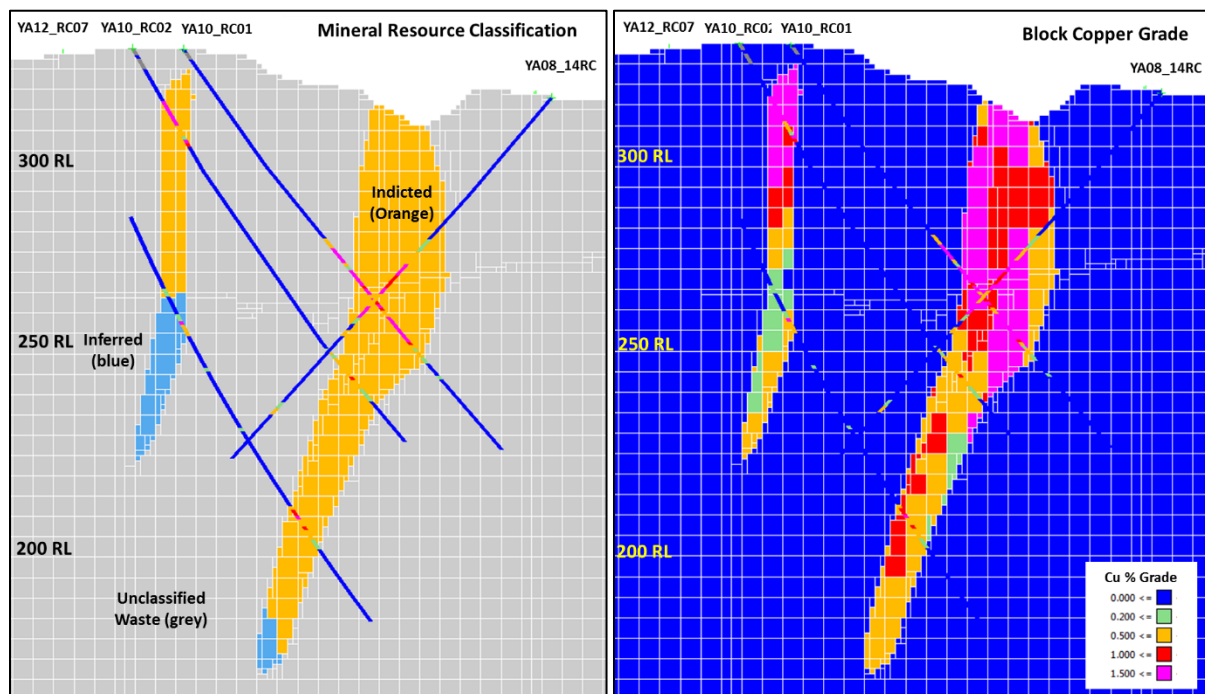
Classification	2011 QMC MLs		2016 QMC MLs		2016 Total	
	Mt	Cu %	Mt	Cu %	Mt	Cu %
Indicated	1.1	1.14	1.8	1.00	2.3	0.95
Inferred	1.0	0.8	0.5	0.75	2.8	0.68
<b>Total</b>	<b>2.1</b>	<b>1.0</b>	<b>2.3</b>	<b>0.79</b>	<b>5.1</b>	<b>0.73</b>

## Classification

Indicated Mineral Resource was defined principally if the blocks were estimated in Pass 1 to effectively define areas drilled by QMC to a 40 m spacing. A small area beneath the existing Young Australian pit was also classified Indicated Mineral Resource where well informed with mixed data and on the basis of tighter spacing with 4 drill holes in Pass 2.

Inferred Mineral Resource was defined in all remaining areas within the interpreted mineralisation domains. The eastern lense displays less continuity and was only classified as Inferred Mineral Resource.

Example classification is presented in Figure 4 though off-section drill holes also contribute to the classification.



**Figure 4: Cross sections through the northern end of the Young Australian open pit**

## **Mining**

Previous mining includes shallow underground mining in 1912 to 1917 and again in 1941 to 1961. Then in 1967, MIM undertook open cut mining and extracted 175,921 t of ore grading 2.2% Cu. Most of the ore was extracted from the middle lens with minor amounts coming from the east and west lenses.

The Mineral Resource is prepared at a cut-off grade only suited to open pit mining methods and heap leach processing.

The Mineral Resource includes no dilution and ore loss assumptions.

The Mineral Resource is limited to a depth of 150 RL, approximately 170 m below the surface.

## **Metallurgy**

Normet conducted a preliminary heap leach tests in 1989 for a recovery of 22% Cu in 30 days. Though not confirmed MIM's recovery was understood to be considerably higher and they processed the ore with heap leaching method in 1967.

## **Cut-off grade**

The low grade cut-off of 0.2% Cu is considered reasonable for the expected processing by acid heap leaching. The cut-off grade is consistent with cut-offs used by QMC at other White Range projects with similar proposed processing.

Shear hosts copper mineralization can be variable in the occurrence grade and thickness. However the 0.2% Cu cut-off at Young Australian effectively encapsulates most of the shear hosted copper mineralization with a consistent structural location and confidence.

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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 undertaken or supervised 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 for Young Australian

## Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<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.</i></p> <p><i>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>Samples used for the resource estimation are from diamond core drilling, reverse circulation drilling, and rotary percussion drilling across multiple periods and operating companies.</p> <p>MIM completed two drilling programs at Young Australian in the 1960s.</p> <ul style="list-style-type: none"> <li>• Diamond drilling – 9 holes for a total of 749 m. Details of the rig used and sampling methods are not available. Available assay data are composite intervals ranging from 1 m to 38 m.</li> <li>• Percussion drilling – 44 holes for a total of 1498 m. Completed using an air flush rotary percussion drill rig (Gardner-Denver Airtrac). Samples were collected as 10 feet (~3 m) composites. Details of the sampling methods are not available.</li> </ul> <p>Ivanhoe Australia (now Chinova Resources) completed four reverse circulation holes in 2010, for a total of 830 m. A Schramm T685 WS-D RC rig was used. Samples were analysed on-site using a handheld XRF device to provide an indication of the copper content. This data was only used to select intervals for laboratory analysis. Samples for the laboratory assay were submitted as 2 m composites and were analysed for 18 elements using an aqua regia digestion and an ICP atomic emission spectroscopy (AES) finish, as well as for gold using fire assay.</p> <p>QMC completed four RC drilling programs in 2008, 2010, 2012, and 2015. Some drilling in 2012 and 2015 was at other nearby prospects. Young Australian drilling is summarised in Table2. The full programmes include:</p> <p>2008 – 15 reverse circulation holes for a total of 1892 m, using a VK600 rig. Samples were collected every 1 m using a rig-mounted riffle splitter. Weights were typically ~3 kg. Intervals with no visible copper minerals were composited to make 2 m samples.</p> <p>2010 – 23 reverse circulation holes for a total of 2631 m, using an METZKE350 rig. Samples were collected every 1 m using a rig-mounted riffle splitter and typically weighed ~3 kg. All samples were assayed at 1 m intervals.</p> <p>2012 – 18 reverse circulation holes for a total of 2494 m, using a custom built rig. Samples were collected every 1 m using a rig-cone splitter and</p>

Criteria	JORC Code explanation	Commentary
		typically weighed ~3 kg. All samples were assayed at 1 m intervals.
		2015 – 8 reverse circulation holes for a total of 1112 m, using a custom built rig. Only one of these holes (YA15RC01) is at the Young Australian deposit. Samples were collected every 1 m using a rig-mounted riffle splitter and typically weighed ~3 kg. All samples were analysed on-site using an Innov-X handheld XRF device to provide an estimate of the copper content. This data was used as a guideline only to assist with sampling and was not used in the resource estimate.
<b>Drilling techniques</b>	<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>	Drilling used for resource estimation comprises diamond core drilling, reverse circulation, and percussion drilling.  The MIM diamond drilling was completed using conventional barrels of size BM and NMLC.  The MIM percussion drilling was completed using an air flush rotary percussion drilling rig (Gardner-Denver Airtrac). Holes were collared at 3 inch diameter then continued at 2.5 inches.  The Ivanhoe and QMC drilling was reverse circulation using a face sampling hammer bit.
<b>Drill sample recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>  <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>  <i>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>	QMC and Ivanhoe RC drill sample recovery is generally good based on the size of the green bags and relatively consistent sample size.  Recovery data is limited for early MIM drilling. The impact of the old MIM data is limited due to its location which is focused on the existing Young Australian open pit and the Mineral Resource estimation process that favours reliance on recent QMC drilling.
<b>Logging</b>	<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.</i>  <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>  <i>The total length and percentage of the relevant intersections logged.</i>	Geological logging for the MIM drilling is not available.  All Ivanhoe and QMC chip samples have been geologically logged, using both qualitative and quantitative descriptions.  The level of detail is considered appropriate to support the mineral resource estimation.
<b>Sub-sampling techniques</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Sampling techniques are not known for the MIM drilling.

Criteria	JORC Code explanation	Commentary
<b>and sample preparation</b>	<p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> <p><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></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<p>On-site sampling techniques are not known for the Ivanhoe drilling but presumed to involve rig site splitting to 2 to 4 kg and other subsampling completed during sample preparation by ALS.</p> <p>All QMC samples were collected using a rig-mounted riffle splitter and typically weighed 3 kg. Field duplicates were collected at a ratio of 1:25 (2008, 2010) and 1:50 (2012, 2015).</p> <p>For the 2008, 2010, 2012 and 2015 QMC drilling, the majority of samples were dry with only occasional wet or moist samples.</p> <p>Sample preparation methods for the MIM drilling are not known. All Ivanhoe and QMC samples were sent to the ALS Global Townsville laboratory, where they were riffle split and pulverized to produce a ~200 g pulp. This was then sub-sampled to produce a 30 g prepared sample for the fire assay, 0.5 g for ICP with aqua regia digestion, and 0.25 g for ICP with four acid digestion. The preparation techniques and sample size are industry standard and are considered appropriate for the material being sampled.</p> <p>ALS Global use the following sample preparation quality control procedures:</p> <ul style="list-style-type: none"> <li>• Samples are prepared as one batch, in sequence</li> <li>• Crushing and grinding equipment is cleaned with barren material before and after each batch</li> <li>• Crushing and grinding equipment is cleaned using vacuum between each sample</li> <li>• Random size analysis is conducted to ensure the pulp has a minimum of 85% passing 75 microns</li> <li>• A dedicated low level preparation area is used for samples requiring low level analysis</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><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></p> <p><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias)</i></p>	<p>The assay technique and laboratory procedures are not known for the MIM drilling.</p> <p>For the Ivanhoe drilling, samples were analysed for 18 elements using an aqua regia digestion and an ICP atomic emission spectroscopy (AES) finish, as well as for gold using fire assay.</p> <p>For the QMC drilling the assay techniques varied as follows:</p> <ul style="list-style-type: none"> <li>• 2008 - samples were analysed for 13 elements using an aqua regia digestion and an ICP AES finish, as well as for gold using fire assay.</li> <li>• 2010 - samples were analysed for 13 elements using an aqua regia digestion and an ICP AES finish. Samples were not analysed for gold.</li> </ul>

**Criteria****JORC Code explanation**

*and precision have been established.*

**Commentary**

- 2012 - samples were analysed for 33 elements using a four acid digestion and an ICP AES finish, as well as for gold using fire assay. The four acid digestion is considered to be near total.
- 2015 - samples were analysed for 33 elements using a four acid digestion and an ICP AES finish. YA15RC01 was not assayed for gold.

A handheld XRF instrument was used during the Ivanhoe drilling in 2010 and the QMC drilling in 2008, 2010, 2012 and 2015 to assist with selecting samples for laboratory analysis. The results were used as a guideline only and have not been included in the resource estimate.

Quality control procedures for the MIM and Ivanhoe drilling are not known. The following procedures were used for the QMC drilling:

- 2008 and 2010 – Certified standards were used at a ratio of 1:25 to the samples. A variety of low, head, and high grade copper standards were used. Field duplicates were taken at a ratio of 1:25. No significant issues were identified.
- 2012, 2015 - Certified standards were used at a ratio of 1:25 to the samples. A variety of low, head, and high grade copper standards were used. Blanks were used at a ratio of 1:50, and field duplicates were taken at a ratio of 1:50. No significant issues were identified.

ALS laboratories also complete internal quality control procedures, including standards, blanks, and duplicates.

No samples were submitted to an alternative laboratory.

Significant intersections were visually verified by QMC's Chief Geologist.

No twinned holes have been completed.

Geological logging is completed on the drill site on paper hard copies, and data entry is completed by the geologist. Laboratory data are provided in electronic format by ALS and are compiled by the geologist. Verification is completed by the Company's Chief Geologist.

The database is stored at the Cloncurry office of QMC and is backed up onto external hard drives on a regular basis. Original laboratory files and paper logs are also stored at the Cloncurry office.

**Verification of sampling and assaying**

*The verification of significant intersections by either independent or alternative company personnel.*

*The use of twinned holes.*

*Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*

*Discuss any adjustment to assay data.*

Criteria	JORC Code explanation	Commentary
<b>Location of data points</b>	<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></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<p>No adjustments have been made to the assay data.</p> <p>MIM drill hole locations were recorded in a local grid and have been converted to MGA94, Zone 54. The collars could not be located and there may be some errors in the transformation.</p> <p>The survey method for the Ivanhoe hole locations is not known though Ivanhoe did have in-house surveyors at that time. Locations were provided in MGA94, Zone 54 and no conversion was made. Downhole surveys were completed every thirty metres using an Eastman Survey Camera.</p> <p>QMC drill hole collars were surveyed using a differential GPS providing sub-metre accuracy. Co-ordinates were recorded in grid system MGA94, Zone 54.</p> <p>No downhole surveys were available for the MIM or Ivanhoe drilling. QMC downhole surveys were completed as follows:</p> <ul style="list-style-type: none"> <li>• 2008 - Digital camera, three times per hole (collar, middle, end)</li> <li>• 2010 - Digital camera, approximately every 60 m, typically three times per hole</li> <li>• 2012 - Gyro, every 5 m</li> <li>• 2015 – YA15RC01 was surveyed using a digital camera every 30 m.</li> </ul> <p>Topographic control is provided by the DGPS surveys of drill collars, which was used to generate a digital surface model. MIM and Ivanhoe collars were then registered onto that surface. The area is relatively flat and the lack of detailed topography is not considered an issue at the current predevelopment phase.</p> <p>Strings from the MIM pit were available in local grid coordinates only, with RLs that are approximately 100 m higher than the surveyed drill collars. An accurate transformation of the pit strings to MGA94 coordinates was not available and the pit location is therefore approximate and final tonnages may vary once a pit survey has been undertaken.</p>
<b>Data spacing and distribution</b>	<p><i>Data spacing for reporting of Exploration Results.</i></p> <p><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></p> <p><i>Whether sample compositing has been applied.</i></p>	<p>Drill spacing in the main pit area is typically 30 m (strike direction) by 15 to 30 m (perpendicular to strike). Drilling elsewhere is typically 50 m (strike direction) by 25 m (perpendicular to strike), although there are some gaps of up to 100 m (strike direction).</p> <p>More recent infill drilling by QMC intersected the mineralisation where expected at depth and along strike confirming the interpreted continuity of the mineralisation.</p>

Criteria	JORC Code explanation	Commentary
<b>Orientation of data in relation to geological structure</b>	<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></p> <p><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>Sample intervals vary and compositing to 2 m used for estimation.</p> <ul style="list-style-type: none"> <li>The MIM diamond drilling assay data has been composited and intervals range from 1 m to 38 m.</li> <li>The MIM percussion drilling samples were collected in 10 feet intervals.</li> <li>QMC sampling intervals range from 1 m to 2 m.</li> </ul> <p>The majority of holes are drilled towards both NW and SE at angles below the horizontal of 40 to 70 degrees. This is considered appropriate to the interpretation that mineralization is controlled by a sub-vertical NE striking shear zone developed within the black shale host. Some of the MIM percussion drilling was vertical, which is not ideal given the sub-vertical dip of the mineralisation, but the impact of this data is minimal and principally used to assist interpretation.</p>
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	Sample bags were packed in batches into polyweave bags and zip tied on site, then wrapped onto pallets for transport. Samples were transported to the laboratory in Townsville by NQX transport contractors.
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	There have been no audits or reviews of sampling techniques and data.

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<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 Young Australian project consists of four mining leases (MLs 7511, 7512, 90084, 90099) and six sub-blocks within an exploration permit EPM 18912 located approximately 70 km southwest of Cloncurry.</p> <p>The four MLs are 100% owned by QMC's subsidiary North Queensland Mines Pty Ltd.</p> <p>ML7511 comprises 3 ha and expires 31/10/2022.</p> <p>ML7512 is 2 ha, expiry 31/10/2022.</p> <p>ML90084 is 5ha, expiry 30/04/2017.</p> <p>ML90099 is 5ha and expired on 31/05/2016 but a renewal has been lodged with the mines department.</p> <p>EPM 18912 is owned by Chinova Resources (formerly Ivanhoe). QMC is operating under a joint</p>

Criteria	JORC Code explanation	Commentary
<b>Exploration done by other parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<p>venture agreement with Chinova and has exclusive exploration rights of six sub-blocks until June 2017.</p> <p>The area has undergone small scale mining within the ML's from the early 1900s until the 1960s, at which point drilling (44 percussion holes, 8 diamond holes) and geophysical surveys (self-potential) were completed by MIM and Carpentaria Exploration.</p> <p>Exploration has also been completed within the wider area since the 1960s and has included:</p> <ul style="list-style-type: none"> <li>• MIM, Carpentaria Exploration (1963 – 1967): geological mapping, geophysical surveys, and drilling at Tank Hill, Main pit area, Hidden Treasure prospects</li> <li>• BHP(1973 – 1975): geological mapping, soil sampling</li> <li>• CRAE (1975 – 1976): stream sediment sampling, rock chip sampling</li> <li>• CRAE, Arimco, Ivanhoe (1989 – current): ground held under continuous tenure (conditional relinquishments) since 1989. Soil sampling at Trinity, Sigma, Card Game. Drilling at Card Game. RAB drilling at Dairy Bore.</li> <li>• Additional licenses have been held in the past, but work was focused outside the current area</li> <li>• Ivanhoe completed four RC holes within EPM 18912 in 2010</li> </ul>
<b>Geology</b>	<i>Deposit type, geological setting and style of mineralisation.</i>	<p>The Young Australian deposit consists of copper mineralisation that is controlled by NE trending, sub-vertical shear zones developed within the carbonaceous Answer Slate. Mineralisation comprises malachite, chrysocolla, cuprite, chalcocite, and chalcopyrite.</p>
<b>Drill hole Information</b>	<p><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i></p> <p><i>easting and northing of the drill hole collar</i></p> <p><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></p> <p><i>dip and azimuth of the hole</i></p> <p><i>down hole length and interception depth</i></p> <p><i>hole length.</i></p> <p><i>If the exclusion of this information is justified on the basis that the</i></p>	<p>Drill hole collar summary is included in Appendix B</p>

Criteria	JORC Code explanation	Commentary
	<i>information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i>	
<b>Data aggregation methods</b>	<p><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></p> <p><i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	Samples were composited to 2 m to ensure similar weighting. Length weighting was also applied during estimation to remove any potential for sample length bias.
<b>Relationship between mineralisation widths and intercept lengths</b>	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p> <p><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></p>	Most drilling is drilled perpendicular to the structural strike dipping 70° to the SW to intersect the mineralisation that is between vertical to a dip of 75° NW. This provides the best intersection angle that can be achieved with drilling. Occasional drilling orientated towards the NW is less ideal but does not contribute significantly to the drilling data. In several cases NW drilling has gone underneath the mineralisation and does not contribute to the Mineral Resource estimate.
<b>Diagrams</b>	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	Maps and sections are included in Figure 2, Figure 3 and Figure 4
<b>Balanced reporting</b>	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	Exploration results are not included here but were previous provided at the completion of drilling in QMC announcements on 10 Dec 2010, 17 Dec 2010, 19 Oct 2011, 13 Dec 2015.
<b>Other substantive exploration data</b>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating</i>	Exploration including mapping, geochemical sampling, and RC drilling has been completed elsewhere within the project area but is not relevant to the Mineral Resource estimate.



Criteria	JORC Code explanation	Commentary
	substances.	
<b>Further work</b>	<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>	The Young Australian deposit remains open to the northeast and southwest. QMC will consider additional exploration in this area, possibly consisting of RAB and RC drilling. QMC will also consider infill drilling at the main deposit with the aim of upgrading portions of the Mineral Resource from inferred to indicated category.

### Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<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>Cross tabulation of the drilling tables was used to check for basis database errors.</p> <p>QMC drilling assays results were derived directly from original digital assays files from the laboratory.</p> <p>A full audit of the drilling and assay data is yet to be completed.</p>
<b>Site visits</b>	<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>	Dr Guojian Xu has supervised exploration and drilling at Young Australian from 2008 to 2015, with his last site visit in November 2015
<b>Geological interpretation</b>	<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>The mineralisation domains are based on geochemical interpretation using a 0.2% Cu cut-off. This defines two largely continuous zones or steeply dipping planes of mineralisation that are consistent with the regional structural mapping and previous open pit mining.</p> <p>Consistency of the two main zones has resulted in predictable infill drilling intersections with sufficient confidence to include Indicated Mineral Resource classification.</p> <p>Additional mineralisation to the eastern footwall is less continuous and is only interpreted where intersected by several drill holes. The lower continuity is reflected in lower confidence classification of only Inferred Mineral Resource.</p> <p>The mineralisation is shear hosted and despite the structural continuity the mineralisation displays some local variability in grade and thickness that is typical for the style of mineralisation.</p>
<b>Dimensions</b>	<i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and</i>	The strike length of the western and middle mineralisation domains is 440 m and 560 m respectively. Largely vertical the domains are

**Criteria****JORC Code explanation**

*depth below surface to the upper and lower limits of the Mineral Resource.*

**Estimation and modelling techniques**

*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.*

*The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*

*The assumptions made regarding recovery of by-products.*

*Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*

*In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*

*Any assumptions behind modelling of selective mining units.*

*Any assumptions about correlation between variables.*

*Description of how the geological interpretation was used to control the resource estimates.*

*Discussion of basis for using or not using grade cutting or capping.*

*The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*

**Commentary**

generally between 100 m and 140 m in vertical depth. The northern half of the deposits appears not to come to surface with potentially up to 35 m of overburden. This however this interpretation is not certain as there is little drilling available in the 0 to 35 m depth range at the structural target zones.

A block model was constructed with 10 m by 5 m by 5 m parent blocks and sub-blocking down to 5 m by 1.25 m by 1.25 m to represent the interpreted domain boundaries and topography. The model was rotated at 37° to align with the regional structure which controls the mineralisation.

Mineralisation domains were defined using a 0.2% Cu cut-off which is effective at defining the two principal mineralised structures. The interpreted domains were used to select and samples for estimation purposes as a hard boundary. Each of the three lenses were estimated independently.

Block grade estimates for copper, cobalt and silver used 2 m composites and inverse distance squared estimation method with a 1 to 10 flattening anisotropy. The search and anisotropic weighting orientations define an average plane dipping 80° to the NW and striking at 037°.

Three estimation passes were undertaken to maximise the weighting and use of the QMC drilling data.

Pass 1 Search of 50 m by 50 m by 15 m using only QMC drilling data and a minimum of 3 composites from 3 drill holes for estimation.

Pass 2 Search of 50 m by 50 m by 15 m using all drilling data and a minimum of 3 composites from 3 drill holes for estimation.

Pass 3 Search of 100 m by 100 m by 30 m using all drilling data.

All estimates used a discretisation of 4 by 2 by 2 points and a maximum of 16 two metre composites. No composites or samples were cut or adjusted other than assumed to be 0 grade where not assayed.

Copper, silver and cobalt was estimated with cobalt being available in 90% of the domain composites and silver in only 50% of the composites. Though estimated silver is not reported as the estimates remaining incomplete in places. Cobalt and silver

Criteria	JORC Code explanation	Commentary
		grades are not high and unlikely to warrant recovery via heap leach processing.
		Results were compared to the previous estimate compiled by a different consultant with similar results. Visual comparison with drilling was used to validate the estimates and application of suitable parameters.
<b>Moisture</b>	<i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i>	Bulk density values and tonnages are based on dry measurements. There are no estimates of the in-situ moisture content.
<b>Cut-off parameters</b>	<i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i>	0.2 % Cu cut-off is adopted for reporting potential heap copper processing and is consistent with other QMC White Range project reporting and mining studies.
<b>Mining factors or assumptions</b>	<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>Previous mining includes shallow underground mining in 1912 to 1917 and again in 1941 to 1961. Then in 1967, MIM undertook open cut mining and extracted 175,921t of ore grading 2.2% Cu. Most of the ore was extracted from the middle lens with minor amounts coming from the east and west lenses.</p> <p>Mining is assumed to be by open pit methods.</p> <p>Some Mineral Resources will be too deep to mine by open pit. Though the mineralising structure in interpreted to extend deeper the block model limits the estimates to 150 RL, approximately 170 m below the surface.</p> <p>No mining dilution is included and the 0.2% Cu cut-off reports most material interpreted within the mineralisation domains. Consequently mining will still incur some edge dilution and ore loss at the hard domain boundary used for the estimation.</p>
<b>Metallurgical factors or assumptions</b>	<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>	Normet conducted a preliminary heap leach test in 1989 for a recovery of 22% Cu in 30 days. Though not confirmed MIM's recovery was understood to be considerably higher and they proceeded with mining and heap leach processing.

<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Commentary</b>
<b><i>Environmental factors or assumptions</i></b>	<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>	The area has been previously mined and has no significant legacy issues.  QMC undertook some remedial works in 2012 and no outstanding issues remain.
<b><i>Bulk density</i></b>	<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>  <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>  <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i>	A dry bulk density of 2.73 t/m <sup>3</sup> was determined by MIM from core drilled in 1964. This is consistent with the expected density for fresh rock material. Though oxide material might be expected to be slightly lower in bulk density the potential impact is reduced by mining depletion at Young Australian and limited extrapolation into oxide towards the north.
<b><i>Classification</i></b>	<i>The basis for the classification of the Mineral Resources into varying confidence categories.</i>  <i>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).</i>  <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i>	Indicated Mineral Resource was defined principally if the blocks were estimated in Pass 1 to effectively define areas drilled by QMC to a maximum of 40 m spacing. A small area beneath the existing Young Australian pit was also classified Indicated Mineral Resource where well informed with mixed data and on the basis of tighter spacing with 4 drill holes in Pass 2.  Inferred Mineral Resource was defined in all remaining areas within the interpreted mineralisation domains. The eastern lense displays less continuity and was only classified as Inferred Mineral Resource
<b><i>Audits or reviews</i></b>	<i>The results of any audits or reviews of Mineral Resource estimates.</i>	The resource estimates has had no external reviews or audits. The estimates were compared to the previous estimates by another party and found to be consistent other than the addition of new drilling information.

Criteria	JORC Code explanation	Commentary
<b><i>Discussion of relative accuracy/confidence</i></b>	<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>There is no statistical or geostatistical assessment or other quantification of the confidence limits of the estimate.</p> <p>The estimate uses a manual section interpretation that has reasonable thickness consistency from section to section. The domain interpretation and resource block cut-off report are drawn at the same cut-off of 0.2% Cu resulting in the majority of the interpreted mineralisation being reported. This provides confidence in the tonnage estimates at the cut-off reported. The highest risk in the estimate is in the grade prediction as grade is intrinsically variable in a shear hosted deposit.</p>

## Appendix B Young Australian deposit drill hole details

Company	Year	Hole			Collar			Orientation		Assays		
	Drilled	Type	Name	Depth	Easting	Northing	RL	Dip	Azim	Cu	Ag	Co
MIM	1964/7	RAB	CGP01	39.9	438562.1	7640403.8	321.0	60	313	14	0	0
MIM	1964/7	RAB	CGP02	17.4	438539.2	7640379.2	319.5	69	301	6	0	0
MIM	1964/7	RAB	CGP03	45.7	438552.6	7640381.8	320.3	46	309	16	0	0
MIM	1964/7	RAB	CGP04	39.6	438532.1	7640355.4	317.1	59	299	13	0	0
MIM	1964/7	RAB	CGP05	36.6	438509.4	7640328.9	314.9	57	308	12	0	0
MIM	1964/7	RAB	CGP06	35.1	438497.8	7640303.5	314.0	59	293	12	0	0
MIM	1964/7	RAB	CGP07	30.5	438477.6	7640279.8	313.1	59	296	10	0	0
MIM	1964/7	RAB	CGP08	30.5	438457.9	7640254.4	312.5	60	306	10	0	0
MIM	1964/7	RAB	CGP09	33.5	438435.7	7640233.0	312.1	58	309	11	0	0
MIM	1964/7	RAB	CGP10	42.7	438580.9	7640371.4	319.2	44	305	14	0	0
MIM	1964/7	RAB	CGP11	36.6	438584.5	7640399.5	317.3	45	310	12	0	0
MIM	1964/7	RAB	CGP12	38.1	438588.4	7640420.8	319.3	45	310	13	0	0
MIM	1964/7	RAB	CGP13	33.5	438526.1	7640392.7	320.2	51	309	11	0	0
MIM	1964/7	RAB	CGP14	36.6	438542.7	7640408.3	323.2	58	308	12	0	0
MIM	1964/7	RAB	CGP15	36.6	438516.0	7640357.7	316.6	61	299	12	0	0
MIM	1964/7	RAB	CGP16	33.5	438557.2	7640348.2	317.4	45	301	11	0	0
MIM	1964/7	RAB	CGP17	30.5	438485.7	7640336.5	316.1	73	308	10	0	0
MIM	1964/7	RAB	CGP18	36.6	438551.4	7640313.5	313.3	49	308	0	0	0
MIM	1964/7	RAB	CGP19	30.5	438482.1	7640305.7	314.7	60	293	10	0	0
MIM	1964/7	RAB	CGP20	36.6	438547.9	7640294.2	312.8	50	293	12	0	0
MIM	1964/7	RAB	CGP21	28.3	438633.6	7640365.6	315.2	46	293	10	0	0
MIM	1964/7	RAB	CGP22	39.6	438590.0	7640450.2	322.5	56	307	13	0	0
MIM	1964/7	RAB	CGP23	39.6	438608.0	7640480.8	324.8	56	304	13	0	0
MIM	1964/7	RAB	CGP24	48.8	438609.9	7640478.9	324.3	90	307	16	0	0
MIM	1964/7	RAB	CGP25	32.0	438630.8	7640511.7	324.5	54	306	11	0	0
MIM	1964/7	RAB	CGP26	1.5	438622.0	7640521.3	326.4	90	307	1	0	0
MIM	1964/7	RAB	CGP26a	3.0	438629.9	7640516.1	325.0	90	307	1	0	0
MIM	1964/7	RAB	CGP26b	50.3	438626.0	7640504.8	324.6	90	307	17	0	0
MIM	1964/7	RAB	CGP27	36.6	438660.0	7640546.5	323.6	53	304	12	0	0
MIM	1964/7	RAB	CGP28	3.0	438654.6	7640558.6	325.3	90	307	1	0	0
MIM	1964/7	RAB	CGP28a	51.8	438649.8	7640540.6	324.4	90	307	17	0	0
MIM	1964/7	RAB	CGP29	42.7	438753.4	7640592.6	317.6	56	307	14	0	0
MIM	1964/7	RAB	CGP30	32.0	438720.3	7640627.1	322.0	56	307	11	0	0
MIM	1964/7	RAB	CGP31	32.0	438487.6	7640305.3	314.5	90	307	11	0	0
MIM	1964/7	RAB	CGP32	30.5	438536.4	7640320.8	314.1	90	307	0	0	0
MIM	1964/7	RAB	CGP33	35.1	438495.5	7640333.1	315.6	90	307	12	0	0
MIM	1964/7	RAB	CGP34	36.6	438523.9	7640356.8	316.9	90	307	12	0	0
MIM	1964/7	RAB	CGP35	36.6	438546.3	7640350.3	317.2	90	307	12	0	0
MIM	1964/7	RAB	CGP36	36.6	438573.0	7640374.3	320.5	90	307	12	0	0
MIM	1964/7	RAB	CGP37	39.6	438529.9	7640391.9	320.2	90	307	13	0	0
MIM	1964/7	RAB	CGP38	36.6	438540.3	7640409.2	323.2	90	307	12	0	0
MIM	1964/7	RAB	CGP39	39.6	438566.1	7640404.0	320.2	90	307	13	0	0
MIM	1964/7	RAB	CGP40	25.9	438566.6	7640427.0	321.5	90	307	9	0	0
MIM	1964/7	RAB	CGP41	39.6	438584.9	7640452.7	323.1	90	307	14	0	0
MIM	1964	DDH	CGD01	76.4	438582.4	7640397.4	317.6	55	312	3	0	0
MIM	1964	DDH	CGD02	75.9	438603.6	7640363.0	315.1	50	313	3	0	0
MIM	1964	DDH	CGD03	76.6	438571.9	7640344.5	314.9	45	314	7	0	0
MIM	1964	DDH	CGD04	77.8	438556.7	7640309.5	313.2	40	326	5	0	0
MIM	1964	DDH	CGD05	73.6	438596.7	7640420.2	318.7	55	312	3	0	0
MIM	1964	DDH	CGD06	69.2	438622.8	7640439.9	318.7	55	311	3	0	0

Company	Year	Hole			Collar			Orientation		Assays		
	Drilled	Type	Name	Depth	Easting	Northing	RL	Dip	Azim	Cu	Ag	Co
MIM	1964	DDH	CGD07	95.3	438633.4	7640404.9	316.3	55	312	0	0	0
MIM	1964	DDH	CGD07a	127.4	438635.4	7640406.9	316.4	55	312	0	0	0
MIM	1966/67	DDH	CGD12a	77.0	438419.4	7640398.7	319.6	56	126	3	0	0
Ivanhoe	2010	RC	YAR0001	249.0	438741.0	7640501.0	336.0	60	310	28	28	28
Ivanhoe	2010	RC	YAR0002	141.0	438399.0	7640117.0	312.0	60	310	18	18	18
Ivanhoe	2010	RC	YAR0003	249.0	438716.0	7640538.0	320.0	60	310	42	42	42
Ivanhoe	2010	RC	YAR0004	191.0	438669.0	7640562.0	324.0	60	310	21	21	21
QMC	2008	RC	YA08_001RC	119.0	438632.8	7640454.0	318.4	63	305	60	0	60
QMC	2008	RC	YA08_002RC	143.0	438646.1	7640445.3	317.5	62	305	75	0	75
QMC	2008	RC	YA08_003RC	143.0	438578.0	7640368.0	320.0	63	314	74	0	74
QMC	2008	RC	YA08_004RC	131.0	438588.7	7640355.2	314.3	60	311	66	0	66
QMC	2008	RC	YA08_005RC	149.0	438599.0	7640345.7	314.4	60	308	75	0	75
QMC	2008	RC	YA08_006RC	88.0	438534.7	7640309.6	313.1	60	306	45	0	45
QMC	2008	RC	YA08_007RC	149.0	438535.6	7640309.0	313.0	66	309	76	0	76
QMC	2008	RC	YA08_008RC	149.0	438474.0	7640234.4	311.7	63	307	75	0	75
QMC	2008	RC	YA08_009RC	137.0	438395.6	7640154.1	310.2	61	303	72	0	72
QMC	2008	RC	YA08_010RC	59.0	438801.0	7640691.0	317.1	60	314	30	0	30
QMC	2008	RC	YA08_011RC	110.0	438815.5	7640674.3	317.3	58	321	55	0	55
QMC	2008	RC	YA08_012RC	119.0	438863.7	7640716.9	317.4	60	311	60	0	60
QMC	2008	RC	YA08_013RC	149.0	438653.6	7640469.2	318.1	46	314	75	0	75
QMC	2008	RC	YA08_014RC	119.0	438619.1	7640428.4	317.9	49	310	60	0	60
QMC	2008	RC	YA08_015RC	128.0	438594.7	7640390.4	315.8	48	303	64	0	64
QMC	2010	RC	YA10RC01	126.0	438550.2	7640487.4	329.9	52	129	124	0	124
QMC	2010	RC	YA10RC02	118.0	438540.4	7640495.1	330.1	56	127	113	0	113
QMC	2010	RC	YA10RC03	85.0	438573.2	7640503.4	331.3	53	130	85	0	85
QMC	2010	RC	YA10RC04	106.0	438561.9	7640511.4	330.7	57	127	105	0	105
QMC	2010	RC	YA10RC05	118.0	438558.6	7640513.9	330.7	65	136	117	0	117
QMC	2010	RC	YA10RC06	108.0	438530.0	7640474.9	329.0	52	130	107	0	107
QMC	2010	RC	YA10RC07	138.0	438509.4	7640458.1	327.6	52	129	138	0	138
QMC	2010	RC	YA10RC08	124.0	438501.9	7640463.4	327.6	56	132	121	0	121
QMC	2010	RC	YA10RC09	112.0	438490.7	7640435.4	323.9	53	127	112	0	112
QMC	2010	RC	YA10RC10	136.0	438471.7	7640423.6	320.8	52	126	136	0	136
QMC	2010	RC	YA10RC11	148.0	438439.7	7640411.2	319.0	52	126	148	0	148
QMC	2010	RC	YA10RC12	94.0	438808.7	7640702.5	316.9	59	313	94	0	94
QMC	2010	RC	YA10RC13	136.0	438823.0	7640685.7	317.2	56	316	135	0	135
QMC	2010	RC	YA10RC14	136.0	438425.4	7640395.5	319.5	52	127	136	0	136
QMC	2010	RC	YA10RC15	118.0	438520.5	7640289.8	312.5	53	311	117	0	117
QMC	2010	RC	YA10RC16	124.0	438415.3	7640365.6	320.0	53	126	124	0	124
QMC	2010	RC	YA10RC17	118.0	438506.9	7640272.0	312.3	56	312	118	0	118
QMC	2010	RC	YA10RC18	124.0	438395.4	7640307.6	315.9	52	124	124	0	124
QMC	2010	RC	YA10RC19	70.0	438420.2	7640252.8	312.9	63	129	70	0	70
QMC	2010	RC	YA10RC20	94.0	438409.6	7640270.5	313.4	67	129	94	0	94
QMC	2010	RC	YA10RC21	46.0	438382.1	7640171.9	310.5	58	128	46	0	46
QMC	2010	RC	YA10RC22	80.0	438370.9	7640183.8	310.8	63	130	80	0	80
QMC	2010	RC	YA10RC23	172.0	438859.5	7640720.3	317.1	60	307	172	0	172
QMC	2012	RC	YA12RC01	157.0	438611.3	7640629.7	318.7	58	132	157	157	157
QMC	2012	RC	YA12RC02	163.0	438549.8	7640549.4	323.1	57	130	162	162	162
QMC	2012	RC	YA12RC03	79.0	438749.5	7640713.4	315.7	60	127	79	79	79
QMC	2012	RC	YA12RC04	163.0	438709.5	7640743.5	316.2	57	130	163	163	163
QMC	2012	RC	YA12RC05	200.0	438397.7	7640351.0	319.8	50	130	200	200	200
QMC	2012	RC	YA12RC06	199.0	438445.2	7640440.9	319.6	46	132	199	199	199
QMC	2012	RC	YA12RC07	160.0	438527.4	7640506.2	328.8	60	135	160	160	160
QMC	2012	RC	YA12RC08	133.0	438763.6	7640765.4	317.4	50	137	133	133	133
QMC	2012	RC	YA12RC09	139.0	438785.7	7640811.3	316.7	53	135	139	139	139

Company	Year	Hole			Collar			Orientation		Assays		
	Drilled	Type	Name	Depth	Easting	Northing	RL	Dip	Azim	Cu	Ag	Co
QMC	2012	RC	YA12RC10	133.0	438815.8	7640851.3	316.3	58	134	133	133	133
QMC	2012	RC	YA12RC11	175.0	438765.7	7640826.4	316.4	56	138	175	175	175
QMC	2012	RC	YA12RC12	121.0	438880.7	7640987.8	318.8	55	131	121	121	121
QMC	2012	RC	YA12RC13	97.0	438937.1	7641074.9	323.9	55	128	97	97	97
QMC	2012	RC	YA12RC15	151.0	438679.4	7640703.6	319.3	54	133	151	151	151
QMC	2012	RC	YA12RC16	91.0	438699.4	7640688.5	319.0	53	134	91	91	91
QMC	2012	RC	YA12RC17	103.0	438631.2	7640614.7	319.2	57	132	103	103	103
QMC	2012	RC	YA12RC18	133.0	438729.5	7640728.5	315.8	52	134	133	133	133
QMC	2015	RC	YA15RC01	151.0	438891.6	7640889.5	320.1	57	131	60	60	60