

# MCB COPPER-GOLD PROJECT MAIDEN JORC MINERAL RESOURCE

#### HIGHLIGHTS

- Maiden Indicated and Inferred Mineral Resource of 313.8 million tonnes @ 0.48% copper and 0.15g/t gold
- 1.5 million tonnes of contained copper and 1.47 million ounces of contained gold
- High grade core of 93.7 million tonnes @ 0.80% copper and 0.28g/t gold will be the focus for the Company's initial studies
- Drill rigs are en-route to MCB site with first holes expected in February 2021. The drill program will focus on resource expansion, metallurgical and hydrological test work and mining infrastructure planning
- Mineralised zones comprising the resource are open, with excellent scope for expansion with further drilling.
- The current Mineral Resource will form the basis of the January 2021 commencement of the Project Scoping Study
- Project Scoping Study will review a range of development options for initial extraction of a high grade core.

Celsius Resources Limited ("Celsius" or "the Company") is pleased to declare a maiden JORC compliant Mineral Resource for the **Maalinao-Caigutan-Biyog (MCB)** Copper-Gold Project ("Project") in the Philippines. The MCB Project is the flagship in a portfolio of assets being acquired by Celsius from UK Company, Anleck Limited.

The Global Mineral Resource estimate comprises **313.8 million tonnes** at a grade of **0.48% copper, and 0.15g/t gold**, at a cutoff grade of 0.2% copper.

- 290.3 million tonnes at a grade of 0.48% copper in the Indicated category, and a further
- 23.5 million tonnes at a grade of 0.48% copper in the Inferred category.

Anleck Chairman and CLA Director designate, Martin Buckingham commented: "The release of this maiden JORC Mineral Resource statement signifies the credibility of the MCB Resource with the potential to be a future copper and gold producer within the Asia Pacific region. Implementation of development plans are now underway, with drilling to commence this Quarter in support of a scoping study. We look forward to the upcoming Annual General Meeting and transaction completion, and thereafter joining the CLA Board so that a focused effort can be made on developing the MCB Project.



#### Mineral Resource estimate for the MCB Copper-Gold Project

The MCB Mineral Resource has been defined as a body of copper and gold mineralisation which is predominantly above 0.2% copper on average. The boundaries of this mineralisation are parallel to the dominant geological trends and the genetically related intrusive tonalite bodies that have been interpreted at MCB.

The 0.2% lower limit is also broadly in line with the expected economic limits of the likely mining and processing options considered for the MCB deposit. Therefore, a preferred lower cut-off grade of 0.2% copper was applied to the reporting of the Mineral Resource estimate.

As part of the future work program a mine plan will be developed that focuses on the early development of the central copper-gold higher-grade core to maximise returns in the early years of production. These studies will consider copper and gold mineralisation at higher cut-off grades ranging up to 0.5% copper as defined in tables 2 to 4 below.

# Table 1: Summary results for the Mineral Resource estimate at MCB at a cut-off grade of 0.2% copper.

Classification	Tonnes (Mt)	Copper Grade (%)	Gold Grade (g/t)	CopperMetal (kt)	Gold Metal (kozs)
Indicated	290.3	0.48	0.15	1,387	1,387
Inferred	23.5	0.48	0.10	113	79
TOTAL	313.8	0.48	0.15	1,500	1,467

Table 2: Summary results for the Mineral Resource estimate at MCB at a cut-off grade of 0.3% copper.

Classification	Tonnes (Mt)	Copper Grade (%)	Gold Grade (g/t)	Copper Metal (kt)	Gold Metal (kozs)
Indicated	215.6	0.55	0.18	1,192	1,224
Inferred	19.6	0.53	0.11	104	71
TOTAL	235.2	0.55	0.17	1,295	1,295

Table 3: Summary results for the Mineral Resource estimate at MCB at a cut-off grade of 0.4% copper.

Classification	Tonnes (Mt)	Copper Grade (%)	Gold Grade (g/t)	Copper Metal (kt)	Gold Metal (kozs)
Indicated	136.4	0.67	0.23	918	1,001
Inferred	15.7	0.58	0.11	90	57
TOTAL	152.1	0.66	0.22	1,009	1,059



Classification	Tonnes	Copper Grade	Gold Grade	Copper Metal	Gold Metal
	(Mt)	(%)	(g/t)	(kt)	(kozs)
Indicated	79.8	0.83	0.30	664	780
Inferred	13.9	0.59	0.11	82	51
TOTAL	93.7	0.80	0.28	746	831

Table 4: Summary results for the Mineral Resource estimate at MCB at a cut-off grade of 0.5%copper.

Note: Copper and Gold grades for Indicated and Inferred Resources are rounded to two significant figures. Some apparent differences in gold ounces may occur due to rounding.

#### Future Work Program

The MCB Mineral Resource estimate has already defined a large deposit, with its total tonnage increasing to over 300Mt at lower cut-off grades. In addition, there appears to be significant scope for further discoveries and extensions to the currently defined Mineral Resource at MCB.

The exploration program for the 3<sup>rd</sup> renewal of EP-003-2006-CAR aims to advance the project to a Scoping Study phase while gathering information to support a Definitive Feasibility Study. Information gathered will support further ore body modeling and development of an underground mine plan, metallurgical testing, sterilization drilling, flotation test work, development of a conceptual hydrological model, infrastructure layouts, high-level financial model along with an updated Mineral Resource. Depending on the outcome of the scoping study, preparation/planning will occur for the delivery of a Definitive Feasibility Study (DFS) and therefore the Declaration of Mining Project Feasibility (DMPF) pursuant to Philippine DENR Administrative Order No. 2010-21.

#### Property area and location

The MCB Project is located in Barangay Balatoc, Municipality of Pasil, Province of Kalinga (Figure 1). From Manila, the best route to reach the project site is via the Cagayan Valley road going to the City of Tabuk, hence to the municipality of Pasil. Distance from Tabuk to Pasil is approximately 60 km via the Tabuk-Lubuagan-Bontoc SONA Highway, which is a travel time of approximately 3 hours utilizing four-wheel drive vehicles. From Lubuagan junction, access is through approximately 24 km of rough dirt road.





#### Figure 1: Location of the MCB Project in the province of Kalinga, Northern Luzon, Philippines.

Tabuk can be reached from Manila via Tuguegarao City, which has daily flights from Manila with travel time of about 50 minutes. Tuguegarao is located inland along the Cagayan River Valley. Travel by public utility bus is also available from Manila to Tuguegarao and takes about 12 hours.

Settlements are generally small, compact, and occupy limited area and are located in the main Barangay of Balatoc. Most of the areas within and surrounding the MCB Project tenement are natural land covers consisting of grassland with sporadic pine trees.

The Property is made up of a single Exploration Tenement with the permit number of EP-003-2006-CAR. The underlying permit is in the name of the Philippine-registered corporation Makilala Mining Company Inc (MMCI) which is 100% owned by a private Company Makilala Holdings Ltd.

The Exploration Tenement was originally approved in 2006 and has had its 3rd renewal approved by the MGB on November 24th 2020.

#### Geology and Geological Interpretation

The geological interpretations and technical information that have contributed to the maiden Mineral Resource estimate at MCB are based largely on surface mapping, analysis of 46 diamond drill holes (25,547m) completed by Freeport McMoRan from 2006 to 2013, and validation and analysis of the drill hole information (Figure 2).







The geological setting for the MCB copper-gold mineralisation is typical of a porphyry copper + gold + moly deposit. The mineralisation and associated alteration exist across the contact between a genetically related intrusive body (tonalite) and the surrounding host rock material. In most cases the surrounding host rock is an older mafic volcanic rock (see Figures 3 and 4).







The location and trend of the copper-gold mineralisation is influenced by two dominant structural trends that exist at MCB. The broad fabric and trend of the intrusive bodies and associated alteration extends in a northeast direction, or at approximately 50 degrees with a near to vertical dip. This orientation is also parallel to some major faulting.

Broad copper-gold domains which defined the Mineral Resource estimate at MCB have been defined based on a combination of continuous zones of copper and gold mineralization which corresponds with alteration features and the controlling geological host rocks and structures.





Figure 4: Cross Section C-D (see Figure 2) with highlighted drill hole intercepts and interpreted geology

There is also evidence at MCB for epithermal vein deposit types which exist within close proximity to the largescale porphyry copper-gold mineralisation. At this stage the only deposit type that is defined in the Mineral Resource estimate for MCB is a porphyry copper-gold style.

#### MCG Block Model

All drilling information was assessed with regard to the potential of defining a new Mineral Resource estimate for MCB. There are three separate locations that appear to have significant copper-gold mineralization. Only one of these has currently been considered to fulfill all of the required criteria to be classified as a Mineral Resource under the JORC Code (2012) (Type 1HG and Type3LG). However, there are two locations with significant assay results which appear to be on the edge of a new zone of significant copper-gold mineralization (Block 3 LG, Block 1 LG) which could be ultimately be converted into additional copper-gold Mineral Resource with further successful drill hole information at these locations (Figure 5).



The following figures are presented to represent some of the details associated with the block model which was completed to estimate the copper-gold Mineral Resource at MCB. Figures 5 is an oblique view of the full block model with the various domains identified for reference. Figure 6 is a plan view image at the 700m level (close to the central position of the block model) which can be used to reference the location of a series of representative cross section view diagrams. The cross-sections are cut at an angle which is approximately perpendicular to the interpreted copper-gold mineralization for a more representative view of the true thickness of the copper-gold mineralization at MCB. Each cross section identifies the spatial distribution of the copper mineralisation in the block model relative to the drill hole data.









Figure 6: Plan view of the July 2020 MCB block model at the 700m level. Cross section locations are referenced for Figures 7 to Figures 12 (Section A to Section F respectively).

Figure 7: Cross Section A (see Figure 6 for referenced location) of the MCB block model down to a cutoff grade of 0.2 % copper.





Block Model **Drill Holes Colour Legend Colour Legend** Gold (g/t) 1,000m Level 2 2 1 1 0.5 0.5 0.3 0.3 0.2 0.2 0.1 0.1 500m Level 250 500m 0 Scale 800 0m Level +1918600+1918200+1918000+1917600+1918400+1917

Figure 8: Cross Section B (see Figure 6 for referenced location) of the MCB block model down to a cutoff grade of 0.2 % copper).





Figure 9: Cross Section C (see Figure 6 for referenced location) of the MCB block model down to a cutoff grade of 0.2 % copper.



Figure 10: Cross Section D (see Figure 6 for referenced location) of the MCB block model down to a cut-off grade of 0.2 % copper).





Figure 11: Cross Section E (see Figure 6 for referenced location) of the MCB block model down to a cutoff grade of 0.2 % copper.





Figure 12: Cross Section F (see Figure 6 for referenced location) of the MCB block model down to a cutoff grade of 0.2 % copper.





#### **Drilling Techniques**

Exploration diamond drilling was contracted to DrillCorp Philippines, Inc. (DCP), between December 2006 and July 2013, comprising 46 drill holes with an accumulative meterage of 25,480.55 metres. Four prospect areas were drilled; Thirty holes (MCB-001 to MCB-030) were collared at MCB (Area 1), located north of Pasil River (Area 1), and the adjoining West MCB (Area 2), for a total of 15,237.05 meters. Sixteen holes (CBG-001 to CBG-016) were drilled at the Caigutan (Area 3) and Binasalan (Area 4), located south of Pasil River, for a total of 10,243.50 meters (Figure 6).

All of the diamond drilling utilised a triple tube core barrel for the entire length to ensure maximum sample recovery. On average the size of the drill core captured was 13% for PQ size, 44% for HQ size and 43% for NQ size.

#### Sampling and Sub-Sampling Techniques

Samples were collected from diamond core drilled from the surface. All drill core was generally sampled on 2.00m intervals. In cases where geological and mineralogical characteristics change, the sample length was reduced to best fit the geological contact, with a minimum sample size of one meter observed. Sampling typically commenced after the overburden horizon depth was exceeded.

The following sub sampling and sample preparations were followed for all the diamond drilling at MCB.

A. Drying and Weighing: Samples were weighed, dried in an oven at 105 Celsius for 6 to 8 hours. For samples with high clay content, drying time is extended up to 16 hours. After drying, samples were weighed again to calculate the moisture content.

B. Crushing: Samples were then primary crushed to a size of <4mm. Using a Boyd crusher, secondary crushing produces <2mm product size. The 1kg crushed material is retained for final preparation.

- C. Pulverizing: The 1kg split is pulverized to -200 mesh with a grinding time of 4 to 6 minutes for 1kg ground samples.
- D. Splitting: 1kg sample is split successively to obtain 4 samples of 250 grams each. Out of the four pulp samples, one sample is dispatched to the laboratory for analysis. Remaining pulp samples were retained for later use as duplicate assays and inter-laboratory checks.

#### Sample Analysis Method

After sample preparation, all samples were sent for analysis at the Intertek laboratory in Manila. Intertek is an internationally recognised and ISO/IEC 17025:2005 & ISO/IEC 17020:2004 certified independent laboratory.

Copper (Cu) values were analysed by means of geochemical digest using perchloric/hydrochloric acids. Elements determined by AAS finish. Samples were fire assayed for gold (Au) using a 50-gram charge, with a detection limit of 0.005 ppm.

QA/QC standards and blanks making up just under 10% of all samples sent to the laboratory were routinely submitted to check the quality of the assay data which makes up the exploration information for the MCB Mineral Resource estimate. The QA/QC data has been reviewed by the author from the original assay laboratory reports with no systematic bias or random errors identified.



#### **Estimation Methodology**

Based on the general dimensions of the interpreted ore domains, and the likely mining method, a parent cell block size of 10m x 10m x 10m was chosen for the Mineral Resource estimate.

Basic statistical information and variogram analysis was reviewed for both copper and gold within the various defined high grade and low-grade domains. The interpreted domains of Type 1HG and Type 3LG were the only 2 domains that were considered to have sufficient data distributed well enough to provide a basis for the use of a more sophisticated interpolation method such as Ordinary Kriging. The parameters for the Ordinary Kriging were based on an analysis of the variograms for each domain. The variograms (defined within the Leapfrog Edge software package) were located along the plane of the interpreted controlling geological trend which is striking at 50 degrees at a near vertical dip.

Where the data was generally insufficient to create meaningful variograms, the inverse distance method of interpolation was used. These domains were all classified as Inferred due to the general lack of drilling information to apply a greater level of confidence in their interpolation results.

A broad review of the statistics for each domain did not identify significant high value outliers that are considered likely to result in an overestimated either locally or globally to the grade distribution within the block model. Therefore, no top cut was applied to the Mineral Resource estimate.

#### **Classification Criteria**

Based on a combination of the changes to the geology and the variogram analysis, it was considered appropriate to apply a maximum distance of 200m to both the major and semi-major axis positions and 100m in the minor direction for the limits of the Indicated Mineral Resource (first pass), with a minimum number of samples at 4 and maximum number of samples at 20.

The Inferred Mineral Resource (second pass) was extended for twice this distance pushing the limits within the defined domains to 400m x 400m x 200m, with a minimum of 2 samples and maximum of 15 samples defined for the second pass interpolation.

#### Cut-off Grade

A lower cut-off grade of 0.2% copper has been used as the preferred lower cut-off grade for the reported Mineral Resource estimate, which is considered appropriate based on the geological continuity associated with copper mineralisation above 0.2% copper in addition to a broad economic cut-off point based on a US\$3.0/lb copper price.

#### Metallurgical and Mining Factors

Information pertaining to the historical mining and processing of a similar copper-gold deposit on the adjacent Batong Buhay Property provides for a basic set of assumptions that have been used for the reported Mineral Resource estimate at MCB. The information pertaining to the Batong Buhay deposit that are relevant to this assessment include the ability to use a large-scale block caving method, in addition to producing a copper-gold concentrate with reported recoveries in excess of 80%.



Benchmark mining costs of US\$10/t to US\$7/t and processing costs of US\$7/t to US\$4/t respectively for a medium sized (5Mt to 10Mt per annum) underground block caving mining method and processing using floatation to produce a copper-gold concentrate have been assumed where applicable for the Mineral Resource estimate. This cost range estimate matches closely with a broad geological cut-off grade of between 0.15% copper and 0.25% copper (at a Copper Price of US\$3.0/lb).

#### **Transaction Completion Schedule**

The Notice of Annual General Meeting has been distributed to shareholders, with the meeting to be held at 11am (WST) January 29<sup>th</sup> 2021, where key resolutions will be considered which will allow completion of the acquisition of Anleck Limited shortly thereafter.

This announcement has been authorized by the Board of Directors of Celsius Resources Limited.

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#### **Competent Persons Statement**

Information in this report relating to Exploration Results and Mineral Resource Estimates is based on information compiled, reviewed and assessed by Mr. Steven Olsen, who is a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr. Olsen is a consultant to Celsius Resources and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Olsen consents to the inclusion of the data in the form and context in which it appears.



# Appendix 1: The following tables are provided to ensure compliance with the JORC Code (2012) requirements for the reporting of Exploration Results for the MCB Project

#### Section 1: Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>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.</li> <li>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).</li> </ul>	<ul> <li>Samples were collected from diamond core drilled from the surface. All drill core was generally sampled on 2-meter intervals. In cases where geological and mineralogical characteristics change, sample length was not less than 1 meter.</li> <li>Magnetic susceptibility measurement were taken using SAIC Exploranium Kappameter KT-9 to determine the amount of magnetite present in copper.</li> <li>Thermo Niton XLT XRF Analyzer was employed in determining the elements present, in ppm, such as Cu, Pb, Zn, As and Mo.</li> <li>Core samples cut into half using diamond core saw following the cutting lines marked by the Geologist. Split cores returned to its respective core tray.</li> <li>Samples were shipped to Intertek Testing Services which is an external laboratory located in Manila, Philippines.</li> <li>Crushed samples were fire assayed for gold (Au) using a 50-gram charge, with a detection limit of 0.005 ppm. Gold values greater than 50 ppm were determined by gravimetric fire assay.</li> <li>Copper (Cu) values were assayed using geochemical digest using perchloric/hydrochloric acids. Elements determined by AAS finish.</li> <li>A total of 46 diamond drill holes were completed from December 2006 to July 2013 for an aggregate meterage of 25,480.55.</li> <li>The core drilling uses triple-tube core barrel from collar to the end of hole to ensure high core recovery. The size of the drill hole core samples is summarized as follows:         <ul> <li>PQ sized drill core with a core diameter of 83.1 mm, for a total of 3,234.20 meters, which covers 13% out of the cumulative meterage, and;</li> <li>NQ sized drill core with a core diameter of 45.1 mm, for a total of 11,308.44 meters, which covers 44%, of the cumulative meterage, and;</li> <li>NQ sized drill core with a core diameter of 45.1 mm, for a total of 10,937.91 meters, which covers 43%, of the cumulative meterage,</li> </ul> </li></ul>



Criteria	JORC Code explanation	Commentary
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>Core recovery has been recorded for every interval as part of the routine geomechanical logging, which is undertaken at the drill site after the core is pulled-out of the inner tube barrel.</li> <li>Recovered core lengths on average were measured to be 97% for the total length of the recorded drilling length, indicating a high recovery and minimal lost core.</li> <li>All drilling activities were supervised by company Geologists. Trained Core house Technician was responsible for the core recovery determination.</li> <li>Core was arranged to fit the breakages, before the actual core length from the start to the end of the drill run was measured. Percent recovery was calculated from dividing the measured core length over the total drill run multiplied by 100.</li> <li>There was no observable bias or specific geological position where there was repeated lower than average core recovery.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Geologists were tasked to oversee the daily quick log report down to sampling. Daily quick log form was completed to identify the geological details such as lithology, alteration and mineralization with corresponding percentage estimate of Cu minerals and Cu grade, using an established geological codes.</li> <li>Detailed logging proceeds describing geological characteristics present in the core, i.e. lithology, alteration, mineralogy, structures, etc.</li> <li>Logging has been conducted in a qualitative and quantitative manner - detailed description of geological characteristics, notations for the drilling log progress and percentage estimates on mineralogy present.</li> <li>Core photography was undertaken after completing the geomechanical logging.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>The following information are the standard procedures defined for the sample preparation of all samples that were prepared at the MCB Project.</li> <li>Drying and Weighing: Samples were weighed, dried in an oven at 105 Celsius for 6 to 8 hours. For samples with high clay content, drying time is extended up to 16 hours. After drying, samples were weighed again to calculate the moisture content.</li> <li>Crushing: Samples were then primary crushed to a size of &lt;4mm. Using a Boyd crusher, secondary crushing produces &lt;2mm product size. The 1kg crushed material is retained for final preparation.</li> <li>Pulverizing: The 1kg split is pulverized to -200 mesh with a grinding time of 4 to 6 minutes for 1kg ground samples.</li> <li>Splitting: 1kg sample is split successively to obtain 4 samples of 250 grams each. Out of the four pulp samples, one sample was dispatch to the laboratory analysis. Retain the other pulp samples later to be used for duplicate assays and inter-laboratory checks.</li> </ul>



Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Samples were fire assayed for gold (Au) using a 50-gram charge, with a detection limit of 0.005 ppm. Gold values greater than 50 ppm were determined by gravimetric fire assay. Copper (Cu) values were assayed using geochemical digest using perchloric/hydrochloric acids. Elements determined by AAS finish</li> <li>The procedures for the submission of samples to the laboratory also include the regular insertion of QA/QC samples in every transmittal form or batch, which consists of 44 numbered calico bags. For each batch, 40 samples came from core samples and an additional 4 samples were included for QA/QC checks, which were as follows:         <ul> <li>Two field standards at a rate of 1 in 20 samples (5%)</li> <li>Field barren sample inserted at a rate of 1 in 44 (2.27%)</li> <li>Field duplicate taken from the quartered core at a rate of 1 in 44 samples (2.27%)</li> </ul> </li> <li>After sample preparation, all samples were sent for final analysis to Intertek at their laboratory in Manila. Intertek is an internationally recognised and ISO/IEC 17025:2005 &amp; ISO/IEC 17020:2004 certified independent laboratory.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Analytical procedures provided by an internationally certified laboratory is considered in line with industry standard for the type of deposit and mineralization identified at the Property.</li> <li>Apart from the verification of the procedures and results as described above, no further verification of the sampling and assaying have been undertaken.</li> <li>None of the drill holes in this report are twinned.</li> </ul>



Criteria	JORC Code explanation	Commentary
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>All data reference points and maps for the Makilala database, including drill hole collar co-ordinates are recorded in WGS 84/UTM Zone 51N.</li> <li>Compass measurements taken by Geologists were used to establish the dip and azimuth of the collar hole as part of their initial collar surveys. Drill collar locations were positioned using a handheld Garmin GPS unit, set to UTM WGS 84 Zone 51N coordinate reference system, with an accuracy expected to be within 2 meters. Downhole surveys were also completed using a single shot camera at 100m intervals.</li> <li>Collar surveys were then logged into the master MS Excel spreadsheet as part of the database.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The broad drilling pattern is at 100m spacing for a series of drill holes which are oriented in a north-west direction and dipping at predominantly at 60 degrees. These drill holes are augmented by some drill holes which have a west-north-west orientation or a north-east orientation or are vertical. (see figures 2 to 4 – Drill Hole Locations and Cross Sections).</li> <li>Drill holes were distributed on eight grid lines, from the prospects area, giving coverage of 1,000 meters from east to west.</li> <li>The drill hole spacing where significant copper-gold mineralisation has been identified is sufficient to determine the geology and grade continuity of the area, as well as the ore body and mineralization extents.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>In the resource estimation, drill hole assays were composited to 2 meters downhole intervals.</li> <li>The dominant trend of the tonalite intrusion, which is directly related to the copper-gold mineralisation has an overall strike of 50 degrees and a near to vertical dip. Drill hole directions vary relative to this dominant orientation, with some more optimal drill holes dipping at 60 degrees towards 320 degrees. There are a number of vertical drill holes which are not optimal for assessing the geological contacts or grade distribution, however, in most cases these drill holes are also close to other drill holes which are dipping across the mineralised domains, typically at 60 degrees.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>The following standard procedures were documented to have been followed in relation to sample security for all of the MCB diamond drilling:         <ul> <li>Sample bags are arranged in sequence according to its sample number. These are then weighed and jotted down to a sample dispatch note which details the sample numbers, sample type and laboratory processing required. Geologists ensures that the transmittal form is correct for encoding and submission. The bags of samples are sent to Makati office by company vehicle. No unsupervised third parties were given access prior to the chain of custody procedure.</li> <li>Upon receipt of samples, these were arranged in sequence to review the numbers, and a sample received report was sent to the Geologists. Samples are individually weighed again for verification.</li> <li>Samples were then delivered to Intertek Testing Services along with</li> </ul> </li> </ul>



		two copies of the sample dispatch form. One copy for the laboratory to accept custody of the sample, and the signed/received copy return to database custodian at Makati office.
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>No other specific audit or review was conducted other than the validation checks by the author documented earlier with regard to the sample preparation, analysis or security for the information in the MCB drill hole database.</li> </ul>



## Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The Maalinao-Caigutan-Biyog (MCB) Copper-Gold project is situated in Luzon Central Cordillera in the Barangay of Balatoc, Municipality of Pasil, province of Kalinga.</li> <li>The property comprises a single Exploration Tenement (EP-003-2006-CAR) which covers an area of approximately 2,719 hectares. The Exploration Tenement surrounds the previous Copper-Gold mining operations known as Batong Buhay Gold Mines, Inc.</li> <li>The underlying title is in the name of the Philippines registered corporation Makilala Mining Company Inc.(MMCI) which is 100% owned by Makilala Holdings Ltd.</li> <li>Anleck Limited has completed a share sale agreement for Makilala Holdings and its subsidiary companies. Under the agreement, 100% of Makilala Holdings was purchased by Anleck (which is an entity incorporated in the United Kingdom).</li> <li>Celsius Resources Ltd has an agreement with Anleck to acquire 100% of Ankeck upon the issuance of the extension to carry out exploration of the Tenement (EP-003-2006-CAR) from the Mines and Geosciences Bureau (MGB) of the Philippines this requirement was met in 24<sup>th</sup> November 2020</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Exploration work and drilling was completed by Makilala Mining Company Inc. which was a subsidiary of Freeport-McMoran Exploration Corporation- Philippine Branch from year 2006 to 2013, the details of which have been documented in the JORC tables.</li> <li>The relative quality and detail associated with the drilling information is considered to be of a high standard. This has enabled the author to establish a high level of confidence associated with the drilling information.</li> </ul>

(Criteria listed in the preceding section also apply to this section.)



Criteria	JORC Code explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The geological setting for the Maalinao-Caigutan-Biyog (MCB) copper-gold mineralisation is typical of a porphyry copper + gold + moly deposit as commonly defined in many academic papers (Hedenquist and Lowernstern, 1994; Sillitoe, R. H., 2010. Corbett and Leach, 1997). The mineralisation and associated alteration exist across the contact between the genetically related intrusive body (tonalite) and the surrounding host rock material. In most cases the surrounding host rock is a mafic volcanic, however, in some instances the older (not genetically related to copper-gold mineralisation) intrusive bodies also exists in contact with the younger intrusive resulting in broad sections of mineralisation and alteration within a series of intrusive bodies.</li> <li>There is also evidence at MCB for epithermal vein deposit types which exist within close proximity to the large-scale porphyry copper-gold mineralisation. At this stage only the deposit type that is identified from the drilling information for MCB is a porphyry copper-gold style.</li> <li>Basalt lava flows make up the majority of the host rocks in the tenement area, which is part of the oldest exposed unit, Basement Complex. This Cretaceous-Paleogene Metavolcanics has been intruded by quartz diorite complex, which in Kalinga, ranges in composition from gabbro to tonalite.</li> <li>A later stage Tonalite intrusion exists throughout the project area and is interpreted to be genetically related to the copper-gold mineralisation at MCB deposit.</li> <li>A dacite flow and dacitic pyroclastic blankets the older basalt host rock and tonalitic intrusive rocks.</li> <li>There are four types of ore mineralization that were emphasized in the project:         <ul> <li>Type 1 - Early high-grade porphyry Cu-Au (Type 1) and high-sulphidation mineralization (Type 4). Hosted in basalt and tonalites, but with strong Type 4.</li> <li>Type 2 - Mix of high-grade porphyry-copper</li> <li>Type 3 - Medium grade porp</li></ul></li></ul>
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> </ul> </li> </ul>	<ul> <li>See CLA announcement dated 16 September 2020 for details regarding the drill hole information for the MCB Property in addition to a full list of all significant drill intersections.</li> <li>In summary, the drill hole database for the Property consists of 46 diamond core drilled holes with an accumulative meterage of 25,480.55.</li> <li>No drill hole information has been excluded.</li> </ul>



Data	<ul> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the 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.</li> <li>In reporting Exploration Results, weighting averaging tophology</li> </ul>	Significant intersections are reported in Appendix 1 and are aggregated
aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>relative to broad mineralised interval which correspond with a definable and continuous zone of copper-gold mineralisation, nominally above a grade of 0.2% copper on its margins. The intervals have been reported as weighted average totals. Internal to the broader mineralisation that has been reported, there are some internal higher-grade copper-gold assay results reported (nominally above 0.5% copper) which are interpreted to exist as a continuous domain of higher grade copper-gold mineralisation. These sections have also been reported as weighted average totals.</li> <li>Only individual weighted average assay results have been reported and no metal equivalent values have been reported.</li> </ul>



Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul> <li>There are a number of drilling orientations, but generally drill holes were designed in a rough grid pattern on lines oriented N30W-S30E spaced at 100 to 200 meters apart, with an inclination of -60 degrees. For the drilling which is at an angle of -60 degrees, there is a relative angle against the contact of the near to vertical intrusive Tonalite and associated copper-gold mineralisation of approximately 30 degrees. In this case, the estimated true widths of the copper-gold mineralisation is approximately half of the reported down hole length.</li> <li>In some instances, there are vertical drill holes which are still useful in defining the extent of the copper-gold mineralisation, but at a relatively poor angle to define the distribution of the copper-gold mineralisation due to being sub-parallel to the mineralisation direction.</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>See figures 2 to 4 for representative Cross Sections of the Geology and its relationship to the copper-gold mineralisation at MCB Tenement. See figures 5 to 12 for representative images and cross-sections which reference the copper grade information of the MCB block model relative to the associated drill hole information.</li> </ul>
Balanced reporting	<ul> <li>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.</li> </ul>	<ul> <li>All data for the project has been collected, validated and reported and is considered to be a fair representation of the Exploration Results available for the Property as of the date of this release.</li> </ul>
Other substantive exploration data	<ul> <li>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 substances.</li> </ul>	<ul> <li>Historical exploration since the date of the original grant of EP-003-2006- CAR in 2006 was undertaken under the ownership and management of Makilala Mining Company Inc. Exploration work conducted by Makilala Mining Company Inc include surface mapping and sampling (2007), ground magnetic survey (2007), induced polarisation (IP) geophysical surveys (2010), and an extended period of diamond drilling from 2006 through to 2013 for a total of 46 diamond drill holes.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is</li> </ul>	<ul> <li>There are a few locations where the potential extension to the current Minerals Resource could be tested. These locations are initially defined at depth plunging steeply to the west underneath the high-grade copper-gold mineralisation, and also to the west of the Maalinao-Panyaw fault. The location for the possible high grade copper-gold to the west include at depth, due to the interpretation that the fault has downthrown the geology on its western side, or toward the north-west, as a possible trend exists to the mineralisation in this direction which has not been tested.</li> <li>Apart from the direct extensions to the currently defined copper-gold</li> </ul>



not commercially sensitive.	mineralisation, there is considerable scope for further discoveries of two
	defined deposit types at the MCB Tenement.
	Porphyry copper-gold deposit types
	There are extensive intrusions in the area that are directly relate to the
	copper-gold mineralisation and which could at multiple locations formed
	significant high-grade copper-gold deposits. It may be inefficient to drill test
	for new deposits of this style due to the high cost and logistics involved with
	diamond drilling in a mountainous region where the tenement in situated.
	• If possible, there may be a benefit to reviewing the latest options available
	for helicopter bourne geophysical surveys especially for magnetic and
	electromagnetic systems. It may also be useful to again try some more
	detailed ground IP surveys to assist with the more specific drill targeting of
	additional porphyry copper deposit types at the MBC tenement.
	Epithermal vein hosted deposit types
	• It is considered likely that there could be a combination of narrow high
	grade, and/or more broad large scale and lower grade epithermal deposit
	types that are closely related to the porphyry copper-gold deposits at MCB.
	An initial approach for the exploration of this deposit type would be to use a
	combination of detailed magnetics (to try and define broad structural
	features) and resistivity surveys, which are likely to show if some structures
	host significant silica alteration. This approach has been proven in the
	pacific rim deposits to have been successful in identifying the large gold
	systems in this geological environment (Hoshcke, 2008) and would be
	worthy of consideration for any future exploration effort which is focused on
	the discovery of additional gold mineralisation.

### Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>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.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>All of the individual logging spreadsheets were compared by the author against the information contained in the drill hole data base, with no errors found.</li> <li>In addition, up to 15% of the original laboratory reports were randomly selected and checked against the drill hole database. This data review did not identify any systematic or isolated errors in the drill hole database.</li> <li>Drill core observations and validation steps were completed in late August 2020 which included a review of all the defined Ore Domains and broad contact positions between the high grade and low-grade domains in addition to the low-grade ore to waste domain boundaries.</li> <li>All drill core from the MCB Project which were used to defined the 2020 Mineral Resources at MCB have been preserved and were available for the author to visually check against the drill logs and recorded assay results.</li> </ul>



Criteria	JORC Code explanation	Commentary
		• Geological observations that are recorded in the drill logs leading to the definition of the ore domains at MCB appear consistent and reflective of what could be observed from the drill core by the Author. In addition, copper sulphides and recently weathered copper-sulphides (due to exposure of the drill core at the surface) are observable in the drill core where high grade copper mineralisation has been reported. The relative presence of copper sulphides and oxidised copper minerals appear reasonably reflective of the assay results reported in the database based on the observations made by the author of the drill core.
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>The author visited the drill core storage facility to review various key sections of the drill hole information that form part of the MCB Mineral Resource estimate on August 28 to August 30, 2020. However, the author has not been able to walk directly on the site Property due to an extended lock-down of the region to protect the local community as part of the quarantine steps undertaken locally due to the risks associated with the COVID-19 global pandemic.</li> <li>The inability to walk onto the Property has been mitigated by an interview with one of the experienced geologists (Mr Francis Escasio) who was working for Freeport McMoRan at the Property over the period of 2007 to 2017. Mr Escasio is a member of the Geological Society of the Philippines and is also a registered Competent Person as classified in the Philippines by their local reporting code.</li> <li>The data collection and available information which was captured by the technical staff at Freeport McMoRan is recognized by the author to be of a high standard. In addition, numerous technical staff, including from Anleck have checked the location of key features including drill hole collar positions which are important for defining the location and accuracy of the Mineral Resource at MCB. On balance, the author considers that the risk associated with any error due to an inability to personally check various surface features at MCB is very low and that all other associated checks have effectively mitigated this risk</li> </ul>
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> </ul>	• The geological interpretation associated with the MCB Mineral Resource estimate is considered by the author to have a high level of confidence, with limited variability considered likely due to a difference in the geological interpretation.
	<ul> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity</li> </ul>	• The interpretation and Mineral Resource estimate has been compared directly with previous interpretations made by the geological staff at Freeport McMoRan, which completed all of the previous exploration activities at MCB. The copper and gold mineralization defined in the Mineral Resource estimate has a high level of consistency relative to the geological interpretation completed by Freeport McMoRan. The only differences of any significance were found to exist outside of the current defined Mineral Resource estimate, and beyond 400m from known drill hole intersections where the author considers that the interpretation may vary



Criteria	JORC Code explanation	Commentary
	both of grade and geology.	more significantly. These locations have been flagged for further drill hole testing in the potential down plunge extent of the currently defined Mineral Resource estimate at MCB.
		• The geological controls on the copper-gold mineralization at the MCB copper-gold mineralisation is typical of a porphyry copper + gold + moly deposit as commonly defined in many academic papers (Hedenquist and Lowernstern, 1994; Sillitoe, R. H., 2010. Corbett and Leach, 1997). The mineralisation and associated alteration exist across the contact between the genetically related intrusive body (tonalite) and the surrounding host rock material. In most cases the surrounding host rock is a mafic volcanic, however, in some instances the older (not genetically related to copper-gold mineralisation) intrusive bodies also exists in contact with the younger intrusive resulting in broad sections of mineralisation and alteration within a series of intrusive bodies.
Dimensions	• 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.	<ul> <li>The copper-gold mineralisation at MCB is typical for a porphyry copper-gold deposit with the geometry of a very thick body, up to 100m in true width for the high grade core, and surrounded by over 400m in true width of additional lower grade copper mineralisation, as a relatively elongate body which stretches out parallel to the contact between the intrusive tonalite and the host rock basaltic rocks</li> <li>Away from the central core, the high grade copper-gold mineralisation extends further as a narrow structurally controlled sheet, interpreted again to be mostly parallel to the tonalite – basalt contact, with some possible extensions extending along interpreted structures which exist in a north-north-west orientation. Both structural sets are close to vertical and their intersection points also are very steeply dipping.</li> </ul>



Criteria	JORC Code explanation	Commentary
Criteria         Estimation         and modelling         techniques	<ul> <li>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.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the</li> </ul>	<ul> <li>The MCB geological models and interpretations were created using Leapfrog Geo V5.1 and the subsequent block models and reported Mineral Resource estimate competed in Leapfrog Edge.</li> <li>Ore Domains <ul> <li>A combination of features were utilized to review and subsequently domain the copper mineralisation to an appropriate level for the purpose of estimating the copper and gold contents.</li> </ul> </li> <li>High Grade Copper Domain <ul> <li>A high-grade ore type called "Ore Type 1" was based on alteration features, magnetic susceptibility readings and copper grades. A summary of the statistics for the copper grades associated with this defined ore zone.</li> <li>In addition, the spatial location of this ore type was predominantly situated across a tonalite and mafic volcanic contact position.</li> <li>For the purpose of defining an ore domain that obeyed the observed trends and geological controls on the mineralisation, the Type 1 ore positions where this ore type was very narrow, or patchy and no observable continuity, this ore type was not defined as a Type 1HG domain.</li> <li>In positions where the larger and more continuous Type 1 sections were observed, the ore domain was further reviewed for possible continuity along the trend of the tonalite/nafic volcanic contact position. In some cases, the Type 1HG domain in 3D space along the tonalite/mafic contact position.</li> </ul> </li> <li>Further grade continuity models were created surrounding the high-grade material, with observable boundaries which are parallel to the tonalite/mafic volcanic contact position is close to vertical and striking at between 40 and 60 degrees in line with the broader trend of the tonalite position and structures.</li> <li>There appeare to be a natural geological boundary at close to 0.2% copper, which has been used as the basis for developing a surrounding low-grade domain which is substantially mineralized. The position for copper mineralisation is close to vertical and striking at between 40 and 60 degrees in lin</li></ul>
The characteristics of the characteristic control of the char	<ul><li>capping.</li><li>The process of validation, the</li></ul>	domain which is substantially mineralized. The position for copper mineralisation is not necessarily at exactly 0.2% copper, however, it is



domain which ensured that the data from the waste material was not mixed with the broader lower grade trends as part of the Mineral Resource estimate.

 Therefore, a low-grade domain boundary was created which obeyed the general trend of the contact position between assay results which were above and below 0.2% copper and for which this contact position was distinctly parallel to the dominant geological trends.

#### Block Size

Initial models were evaluated using a parent cell size of 20m x 20m x 20m which were ultimately proven to be very coarse for appropriate ore definition within the narrower sections of the mineralised bodies, and relative to the dominant sample size of 2m. A final parent cell size of 10m x 10m x 10m was ultimately used as the final model block size which appear to appropriately fill the model with cells and is considered appropriate for any potential economic evaluation of the Mineral Resource, which is most likely considered to be via the block caving method.

Ore Continuity and Statistical Analysis

 After applying the constraints on the ore domains for the high-grade and low-grade domain boundaries, each dataset was reviewed in terms of their basic statistics and a review of their potential continuity based on their variograms.

Basic Statistics and Top Cut.

• The summary basic statistical information for copper, gold and specific gravity associated with each domain, based on the 2m composited datasets from within each domain are summarised in tables 5 and 6.

#### Table 5: Table of statistical information for Ore domain Type 1HG.

TYPE 1- High Grade	Copper	Gold	Specific Gravity
Count	1061	1062	1017
Length	2129.1	2125.7	2041.1
Mean	1.07	0.50	2.75
Standard Deviation	0.81	0.59	0.098
Co Variance	0.76	1.19	0.04
Variance	0.65	0.35	0.01
Minimum	0.01	0.003	2.35
Q1	0.47	0.08	2.68
Q2	0.79	0.25	2.73
Q3	1.53	0.74	2.81
Maximum	5.37	3.83	3.32



## Table 6: Table of statistical information for Ore Domain Type 3LG

TYPE 3- Low Grade	Copper	Gold	Specific Gravity
Count	3644	3644	3316
Length	7310.1	7310.1	6652.8
Mean	0.38	0.08	2.75
Standard Deviation	0.28	0.11	0.097
Co Variance	0.74	1.41	0.04
Variance	0.08	0.012	0.01
Minimum	0.01	0.003	2.21
Q1	0.20	0.03	2.68
Q2	0.31	0.05	2.74
Q3	0.47	0.09	2.82
Maximum	3.53	2.66	3.08

 A review of the statistics for each domain did not identify significant high value outliers that are considered likely to result in an overestimated either locally or globally to the grade distribution within the block model. Therefore, no top cut was applied to the Mineral Resource estimate.

Variogram analysis.

- The variograms were analyzed in a direction which is parallel to the dominant geological trend of approximately 90 degree dip at a strike of 50 degrees.
- The down hole analysis and all the variograms for 3 directions in the low grade and high-grade domains appear to indicate a consistent nugget effect of less than 0.2 (averaging 0.15).
- In summary, various orientations all show that the relationship between samples is lost at between 190m and 300m distance along both the major and semi-major directions in the plane of the dominant geological trend.
- In the opposing minor direction (out of the plane of the main geological trend) the Sill was mostly reached at a distance of 190m for the high grade and 120m for the low grade, although more confidence could be applied to a 100m distance.
- The primary plunge direction for the mineralisation based on the variogram analysis could be interpreted to be at either 50 degrees or at 160 degrees. In addition, within the low grade domain, it was observed that some of the data appears to have a better continuity in the minor direction, indicating that there may be some influence or continuity perpendicular to the defined 50 degree trend. This is interpreted to be related to a series of 350 degree striking faults which are potentially the cause of, the main high-grade domain which is close to the Maalinao-Panyaw fault.

Interpolation method

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- After definition of the ore domains and subsequent statistical analysis and variogram analysis were completed for each ore domain the following interpolation methods were chosen.
  - Copper values in the Type 1HG and Type3LG domains –



<ul> <li>Ordinary Kriging         <ul> <li>Gold Values in the Type 1HG and Type3LG domains –</li> <li>Ordinary Kriging                 <ul> <li>Specific Gravity values – Inverse distance (x2)</li> </ul> </li> <li>The geological models, ore domain models and associated interpolation were all completed in the 3D software modelling package Leapfrog Geo and Leapfrog Edge (Version 5.1).</li> </ul> </li> <li>Search Ellipse parameters</li> </ul>
<ul> <li>For the purpose of determining the appropriate estimation method and basis for defining the grade distribution within the MCB block model, the drill hole data locations relative to the geological interpretation and potential continuity for the mineralisation based on the variograms were all taken into account.</li> <li>It is observed that the drill hole data is clustered against the Maalinao-Panyaw fault, with a significant gap to the north-east at depth. In addition, at shallow levels there is a distinct change in the geology and grade distribution within 200m of the high-grade zone. At depth (below ~300m RL) the high grade domain (Type 1HG) is not well defined due to lack of the drill hole data, and there is limited confidence at this stage that this domain extends for more than 200m down plunge extending away from the existing drilling information.</li> <li>The Type 1HG domain and surrounding Type 3LG domain have been interpreted to extend along strike, with some support for this continuity as the mineralisation moves form a tonalite/basalt contact into a tonalite/tonalite contact position.</li> <li>Based on a combination of the changes to the geology and the statistics, it was considered appropriate to apply a maximum distance of 200m to both the major and semi-major axis positions and 100m in the minor direction for the limits of the Indicated Mineral Resource (first pass), with a minimum number of samples at 4 and maximum number of samples at 20.</li> <li>The Inferred Mineral Resource (second pass) was extended for twice this distance pushing the limits of the second pass search ellipse to 400m x 400m x 200m, with a minimum of 2 sample and maximum of 15 samples.</li> </ul>



Criteria	JORC Code explanation	Commentary
Moisture	<ul> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	The tonnes estimated for the MCB block models were calculated on a dry basis.
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul> <li>The MCB Mineral Resource has been limited to a defined body of copper and gold mineralisation which are predominantly above 0.2% copper on average. The boundaries to this Mineralisation are parallel to the dominant geological trends and the genetically related intrusive tonalite bodies that have been interpreted at MCB.</li> <li>The 0.2% lower limit is also broadly in line with the expected economic limits of the likely mining and processing options considered for the MCB deposit. This is based on both mining and processing of the adjacent Batong Buhay deposit and the dimensions and distribution of the mineralisation at MCB.</li> <li>Therefore, a preferred lower cut-off grade of 0.2% copper was applied to the reporting of the Mineral Resource estimate which is based on the information provided in this report (Table 1).</li> </ul>
		• The copper and gold mineralization at MCG has a distinct higher grade central core which offers the alternative of developing a smaller mining operation using a higher cut-off grade. These alternatives are likely to be reviewed at cut-off grades ranging from 0.2% copper up to 0.5% copper (see tables 1 to 4).
Mining factors or assumptions	<ul> <li>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.</li> </ul>	<ul> <li>Information pertaining to the historical mining and processing of a similar copper-gold deposit on the adjacent Batong Buhay Property provides for a basic set of assumptions that can be used as a reasonable basis for which there are prospects for future economic extraction of the reported Mineral Resource estimate at MCB. The information pertaining to the Batong Buhay deposit that are relevant to this assessment include the ability to use a large-scale block caving method, in addition to producing a copper-gold concentrate with reported recoveries in excess of 80%.</li> <li>It has been assumed that the large bodies of copper-gold mineralisation that are considered likely to form a continuous body of mineralisation potentially amenable to block cave mining have been included within the reported Mineral Resource estimate. Isolated or narrow structurally controlled sections of copper-gold mineralisation at this stage at MCB do not appear to be of a scale to suggest that they have reasonable prospects for eventual economic extraction and are therefore not included in the reported Mineral Resource estimate for MCB.</li> <li>Benchmark mining costs of US\$10/t to US\$7/t and processing costs of US\$7/t to US\$4/t respectively for a medium sized (5Mt to 10Mt per annum) underground block caving mining method and processing using floatation to produce a copper-gold concentrate have been assumed where applicable for the Mineral Resource estimate.</li> </ul>
		<ul> <li>This cost range estimate matches closely with a broad geological cut-off grade of between 0.15% copper and 0.25% copper (at a Copper Price of</li> </ul>



		•	US\$3.0/lb). A lower cut-off grade of 0.2% copper has been used as the preferred lower cut-off grade for the reported Mineral Resource estimate, which is considered appropriate based on the geological continuity associated with copper mineralisation above 0.2% copper in addition to a broad economic cut-off point based on a US\$3.0/lb copper price.
Metallurgical factors or assumptions	• 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.	•	There is no reported metallurgical assessment or testing completed from the exploration activities defined to date at MCB. However, there is some important information that has been obtained for the processing method and general copper and gold recoveries from an adjacent porphyry copper deposit (Batong Buhay). The Batong Buhay deposit is interpreted to be the same deposit style and also from the same geological event as the MCB copper-gold mineralisation. It is therefore a reasonable assumption at this stage, without any further specific metallurgical testwork, that the metallurgical characteristics at MCB are likely to be similar to the Batong Buhay deposit. Public reports from the current owner of the Batong Buhay deposit (PMDC) report that historical mining by the previous operator (Philix) in 1984 was underground mining via block-caving methods followed by mineral processing via floatation methods to create a copper-gold concentrate product for sale. The reported recoveries using the floatation technology at the time is estimated to have been in excess of 80% for copper and in excess of 70% for gold into the copper concentrate. It is considered likely that further advances in floatation technology since 1984 could further improve the level of recovery for both the copper and gold if the assumption is correct that the copper-gold mineralisation at MCB has similar metallurgical characteristics to the Batong Buhay copper-gold deposit.



Criteria	JORC Code explanation	Commentary
Environ- mental factors or assumptions	<ul> <li>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.</li> </ul>	<ul> <li>The MCB deposit exists within a relatively high mountain range with local regions containing high topographic relief, ranging from 800m in the valleys to over 1,300m at the surrounding mountain peaks.</li> <li>No detailed mining assessments has been made with regard to a full assessment of the environmental factors required for a new Mining Operation at MCB. However, the current assumptions that has been made which largely take into consideration the likely environmental factors that will need to be managed for any proposed mining operation at MCG include the following:         <ul> <li>The current assumption is that the mining method will be an underground block cave, with limited surface disturbance associated with the mining activities.</li> <li>The waste and tailings products will in part be backfilled to limit the surface disturbance and fit within the requirements of a site which is both high relief and high rainfall, and allowing for the expected levels of erosion that naturally occur at the MCB area.</li> </ul> </li> <li>There are currently no known additional impediments or environmental controls required to a proposed mining operation at MCB that have been considered outside of the assumptions above.</li> </ul>
Bulk Density	<ul> <li>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.</li> <li>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.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>Bulk density measurements were routinely taken throughout the drilling campaign and are available for all the defined ore domains. The method used to collect the specific gravity information for each drill hole is summarised in the sampling and core management procedures from an internal report by Freeport-McMoran. These procedures are summarised as follows: <ul> <li>Specific gravity is determined by weighing a dry core sample in air and as submerge in water.</li> <li>Two 10 to 15 cm long split core samples are collected from each sampling interval, one near the start and the other near the end of the interval.</li> <li>Samples were weighed in air, weighed suspended in water, and weighed in air again to determine its saturated weight.</li> </ul> </li> <li>A review of the bulk density measurements, apart from some generally lower values that exist closer to the surface, or within the top 100m from surface.</li> <li>To apply a more accurate estimation of the specific gravity to the block model and Mineral Resource estimate at MCB, an inverse distance (x2) estimation method was used to interpolate a value of the specific gravity throughout the block model based on 2m composited drill hole data for each ore domain.</li> </ul>



Criteria	JORC Code explanation	Commentary
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>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).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>Indicated Mineral Resource Classification</li> <li>The grade distribution within the MCB block model was classified as Indicated where the geology and associated copper-gold mineralisation, within a constrained high grade (Type 1HG) or low grade (Type 3LG) domain could be confidently extrapolated based on the understanding of the mineralisation deposit type, the current distribution of the drilling information and the information obtained from the variogram analysis.</li> <li>Based on a combination of the changes to the geology and the statistics, it was considered appropriate to apply a maximum distance of 200m to both the major and semi-major axis positions and 100m in the minor direction for the limits of the Indicated Mineral Resource, with a minimum number of samples at 4 and maximum number of samples at 20.</li> <li>Inferred Mineral Resource Classification</li> <li>The Inferred Mineral Resource was extended for twice the distances applied to the Indicated Mineral Resource pushing the limits search ellipse to 400m x 400m x 200m, with a minimum of 2 sample and maximum of 15 samples defined for each block. This was considered appropriate for this level of confidence based on the broad dimensions of the copper-gold mineralisation defined to date at MCB.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul> <li>No independent audit or review has been undertaken on the updated Mineral Resource estimate for the MCB Property which is the subject of this ASX Release.</li> </ul>
Discussion of relative accuracy/ confidence	<ul> <li>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.</li> <li>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</li> </ul>	<ul> <li>The relative quality and detail associated with the drilling information which underpins the Mineral Resource estimate for MCG is considered to be of high standard. This has enabled the author to establish a high level of confidence associated with the geological interpretations and definition of the various ore domains.</li> <li>The analysis of the drill hole data statistics within each respective ore domain has identified a relatively good correlation and consistency of assay data for hundreds of meters, with some local variations being consistent with what would be expected within a relatively large porphyry copper style of mineral deposit.</li> <li>The current level of Inferred and Indicated Mineral Resource estimates are considered appropriate relative to the data distribution and confidence in the distribution of the copper and gold mineralisation.</li> <li>There only issue that has prevented some portion of the Mineral Resource estimate from having a higher level of confidence up to the Measured category is due to the drill hole data not being location over an even spacing and distribution. There are many locations where the drill hole data cross over, and then extends away for distances to over hundreds of metres apart where the domain boundaries exits.</li> <li>A number of well-placed drill holes which close the gap in the drilling information should result in the ability to improve the confidence in the Mineral Resource estimate up to the Measured category for the bulk of the</li> </ul>



procedures used.	high grade domain (Type 1HG).
<ul> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	