

ASX Announcement | ASX: CPM

19 December 2022

IP highlights untested potential at King Solomon Cu-Au prospect

Highlights

- Induced Polarisation (IP) survey highlights chargeability anomaly continuing at depth, with the southern end of King Solomon 1 the highest priority
- Seven dipole-dipole (DP-DP) cross section lines and one long section DP-DP line were used to 3D model the chargeability and resistivity response at King Solomon 1, mapping out a chargeability response correlating with sulphide mineralisation and/or magnetite alteration at King Solomon 1, providing robust drill targeting
- King Solomon 1 Cu-Au mineralisation remains open to the north and down dip

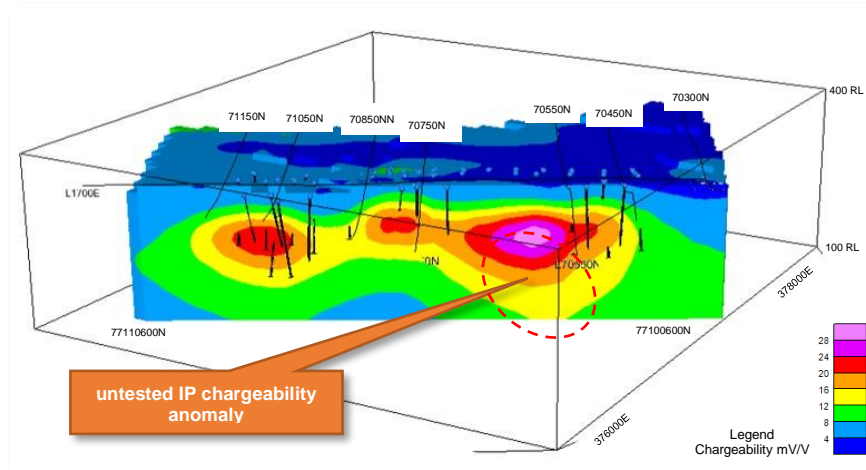


Figure 1: Diagrammatic figure of 3D IP chargeability model at King Solomon 1 (looking ENE)

- Assay results for the remaining drill holes are in process at the laboratory and expected shortly

Managing Director Ian Warland, commented:

"After the recent success of the November drilling program where we announced the newly discovered western zone of mineralisation parallel to the main mineralised shear zone at King Solomon 1 Cu-Au prospect. The new IP survey indicates a robust chargeability response continuing at depth, especially in the southern part of King Solomon 1. IP has been successful in mapping out the mineralised system to date, hence there is excellent potential for mineralisation to continue at depth and the southern shoot of King Solomon 1 is a high priority. The rest of the drill assays including five new holes at King Solomon 1 are in the laboratory and we look forward to updating the market as results come to hand with our plans going forward."





Cooper Metals Limited (ASX: CPM) ("CPM" or "the Company") is pleased to announce results of the recent induced polarisation (IP) survey at King Solomon 1 prospect at the Mt Isa East Copper Gold Project in northwestern Queensland (**Figure 4**).

Induced Polarization Survey - King Solomon

After the November RC drilling at King Solomon where the Company announced more significant Cu-Au intercepts at King Solomon 1 including results from drill hole 22MERC055¹ of:

- **17m @ 1.7% Cu and 0.38g/t Au from 49m incl: 4m @ 6.2% Cu and 1.31g/t Au (western zone), and**
- **9m @ 2.5% Cu and 0.25g/t Au from 94m incl: 5m @ 4.2% Cu and 0.39g/t Au (middle zone)**

Australian Geophysical Services completed an induced polarisation (IP) survey over the King Solomon 1 prospect to test for chargeability response beneath the current drill depth (~150m deep) to around 250 to 300m deep. Results for the IP survey are very encouraging, highlighting an untested chargeability anomaly at depth, with the southern end of King Solomon 1 showing the strongest response.

The IP survey consisted of seven dipole-dipole (DP-DP) lines oriented across strike (~60°) of the mineralisation and one DP-DP line oriented along strike (~330°) of the mineralisation (Figure 3). The eight new DP-DP lines along with the IP gradient array data acquired last July² were used by Cooper's consultant geophysicist to generate a 3D model of the IP response. The IP model indicates three high chargeability responses consistent with the three plunging mineralised shoots delineated by the RC drilling (Figure 2). A review of drill results to date indicates that IP chargeability response at King Solomon 1 is strongest when coincident with either Cu-Au mineralisation, pyrite and/or magnetite alteration, providing a robust targeting method at depth. Importantly, the southern chargeability response extends at depth, plunging to the SSE, which may indicate strong potential for Cu-Au mineralisation in this area down to at least 250m below surface (Figure 2).

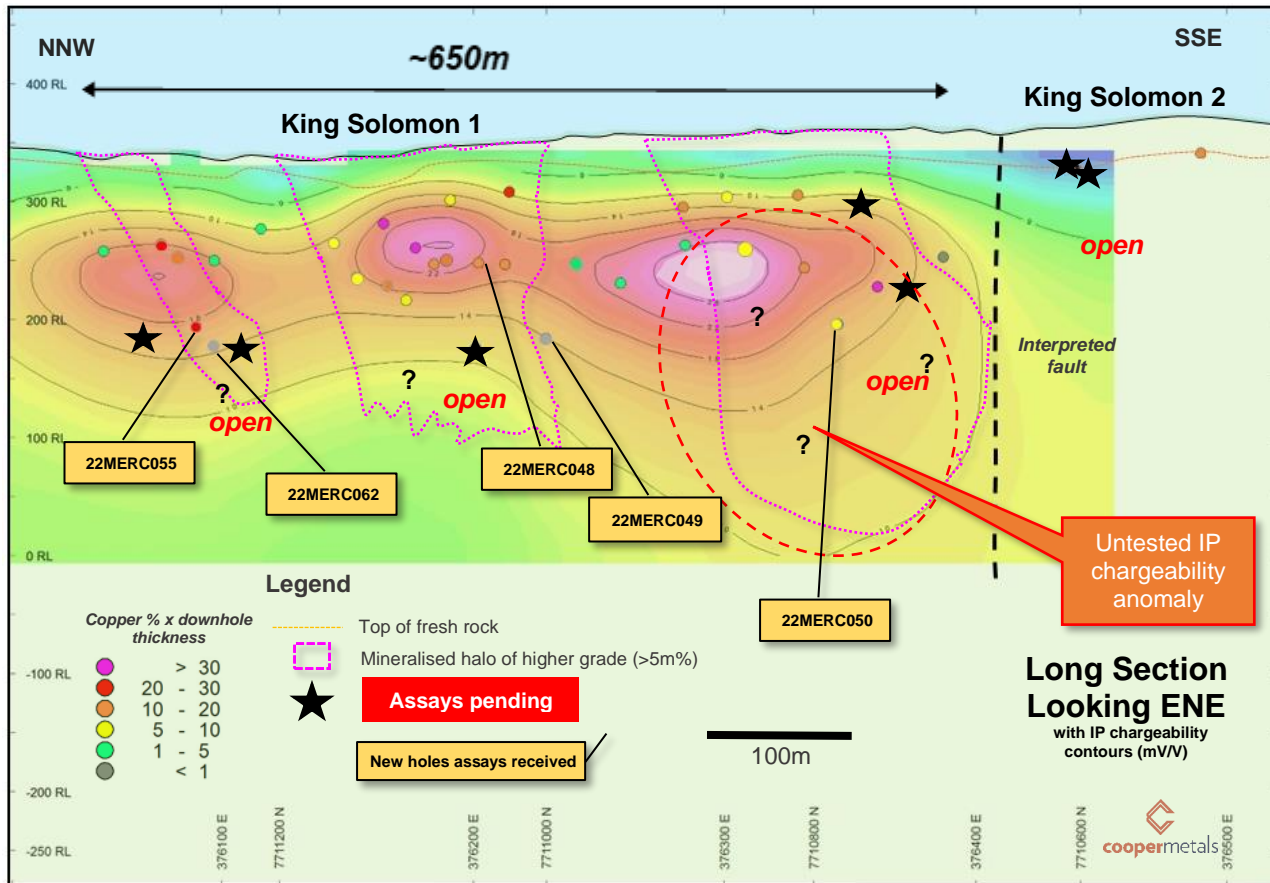


Figure 2: Long Section King Solomon 1 (with IP chargeability contours mV/V)

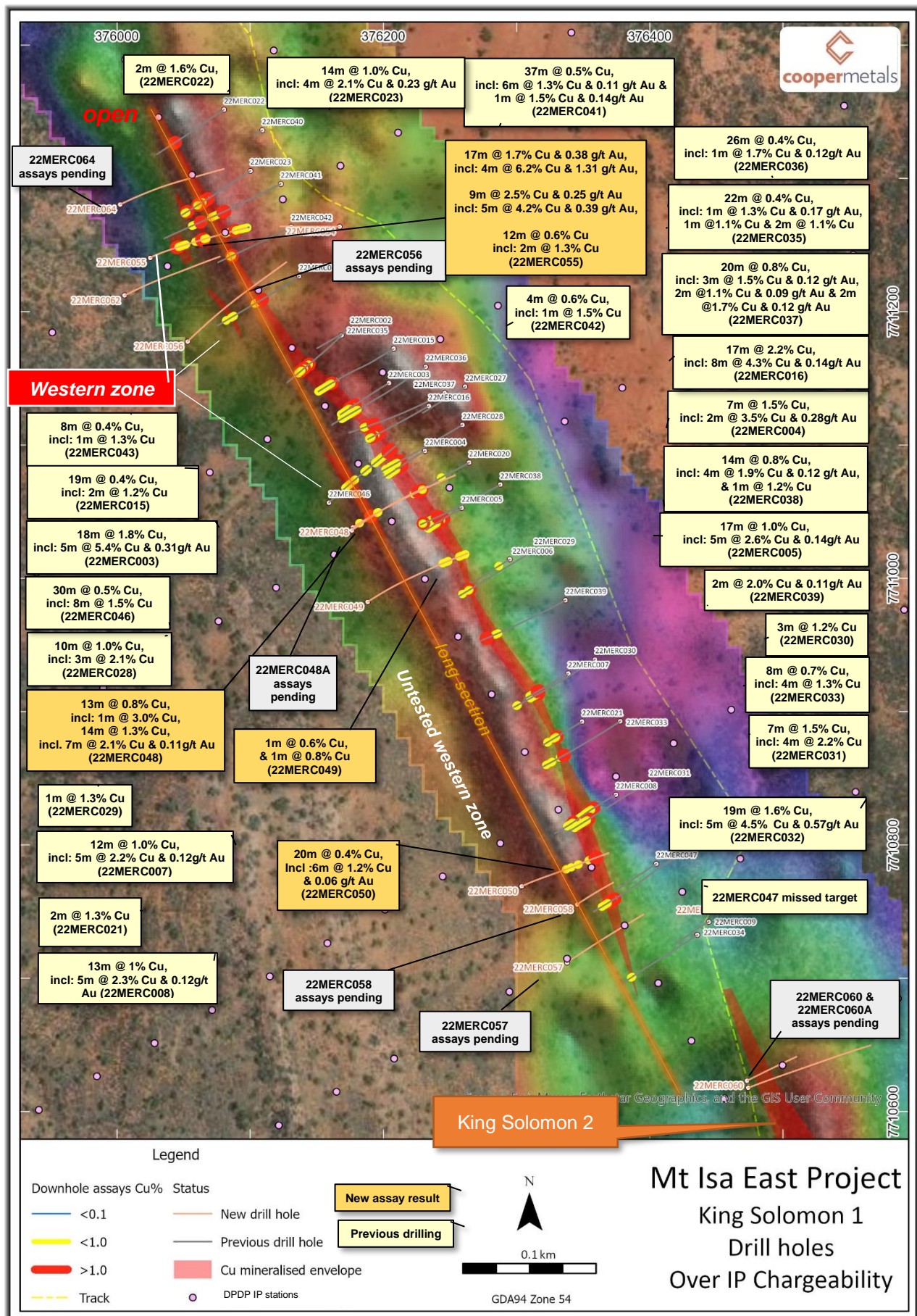


Figure 3: King Solomon prospect drill hole locations against IP chargeability gradient array



Next Steps King Solomon 1

- Obtain remaining assay results for the November drilling and interpret
- Plan follow up drilling at King Solomon 1

The Board of Cooper Metals Limited has approved this announcement and authorised its release on the ASX.

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COMPETENT PERSON'S STATEMENT:

*The information in this report that relates to **Geological Interpretation and Exploration Results** is based on information compiled by Ian Warland, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Warland is employed by Cooper Metals Limited. Mr Warland has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Warland consents to the inclusion in the report of the matters based on his information and the form and context in which it appears.*

Reference

1. ASX CPM: 12 December 2022: King Solomon prospect intersects more significant copper-gold mineralisation
2. ASX CPM: 12 July 2022: IP identifies new targets at King Solomon Cu-Au prospect



**About Cooper Metals Limited**

Cooper Metals Ltd (ASX: CPM) is an ASX-listed explorer with a focus on copper and gold exploration. CPM aims to build shareholder wealth through discovery of mineral deposits. The Company has three projects all in proven mineralised terrains with access to infrastructure. The Projects are detailed briefly below:

Mt Isa East Project (Qld)

Cooper Metal's flag ship Mt Isa East Cu-Au Project covers ~1300 sq.km of tenure with numerous historical Cu-Au workings and prospects already identified for immediate follow up exploration. The Mt Isa Inlier is highly prospective for iron oxide copper gold (IOCG), iron sulphide copper gold (ISCG) and shear hosted Cu +/- Au deposits.

Yamarna Gold Project (WA)

The Yamarna Gold Project located along strike from Gold Roads 6.16 Moz world class Gruyere Gold Deposit (ASX: GOR) has an extensive length of untested Dorothy Hills Shear Zone that was important in the formation of Gruyere gold deposit located ~10 km to the southeast of Cooper's tenements.

Gooroo Project (WA)

Lastly the Gooroo Cu and or Au Project covers newly identified greenstone belt ~20 km from Silver Lakes (ASX: SLR) Deflector mine. The 26 km expanse of covered greenstone belt has had almost no exploration and was only added to government geology maps in 2020 after reinterpretation of geophysical data.

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APPENDIX 1: The following tables are provided to ensure compliance with JORC Code (2012) requirements for exploration results for the Mt Isa East Project in Qld.

To update

1.1. Section 1 Sampling Techniques and Data to update

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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. 	<p>IP survey by Australian Geophysical Services Limited in December 2022.</p> <p>Transmitter GDD model Tx4 20A/5000W/2400V</p> <p>Receiver GDD 32 channel receiver Model GRx8-32</p> <p>Ground IP Survey</p> <p>Geophysical technique: Time Domain Induced Polarisation / Resistivity</p> <ul style="list-style-type: none"> Array: Dipole-Dipole Array (DP-DP) Rx Dipole Separation: 50m Tx Dipole Separation: 50m Tx Position Offset 5m from Rx position (where required) Station Separation: 25m Transmitter Frequency: 0.125Hz (2 sec time base) Number of Lines: 9 n=4-16 7 DP-DP lines Line Direction: 60deg (NE-SW) ~950 to 1000m long each 1 DP-DP Line direction: 330deg (NNW-SSE) 1100m long Chargeability Integration: 280-1480ms Tx - Typical Current: 2.6 A <p>• No new drilling results in this release</p>
Drilling techniques	<ul style="list-style-type: none"> Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., 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). 	<p>• No new drilling results in this release</p>
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<p>• No new drilling results in this release</p>
Logging	<ul style="list-style-type: none"> 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. 	<p>• No new drilling results in this release</p>
	<ul style="list-style-type: none"> Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. 	<p>• No new drilling results in this release</p>
	<ul style="list-style-type: none"> The total length and percentage of the relevant intersections logged. 	<p>• No new drilling results in this release</p>



Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> • If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • 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. • Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> • No new drilling results in this release
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • 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. • 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. 	<ul style="list-style-type: none"> • No new assays in this release
Verification of sampling and assaying	<ul style="list-style-type: none"> • The verification of significant intersections by either independent or alternative company personnel. 	<ul style="list-style-type: none"> • No new drilling results in this release
	<ul style="list-style-type: none"> • The use of twinned holes. 	<ul style="list-style-type: none"> • No new drilling results in this release
	<ul style="list-style-type: none"> • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. 	<ul style="list-style-type: none"> • No new drilling results in this release
	<ul style="list-style-type: none"> • Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> • No adjustments to the data.
Location of data points	<ul style="list-style-type: none"> • 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. • Specification of the grid system used. • Quality and adequacy of topographic control. 	<p>IP survey</p> <ul style="list-style-type: none"> • 8 DP-DP lines, 7 SW-NE, 1 NNW • Line spacing 100m with one line 150m • Line orientation 060/330 degrees • GDA94 Zone54S • IP locations were obtained using a Garmin GPS in UTM MGA94 mode • The grid system is MGA_GDA94, zone 54 for easting, northing and RL.
Data spacing and distribution	<ul style="list-style-type: none"> • Data spacing for reporting of Exploration Results. 	<ul style="list-style-type: none"> • DP-DP 7 lines orientated 60 degrees which is approximately right angles to the geology. Line spacing is 100m to 150m apart. With one line 250m apart. • 1 long section DP-DP orientated 330 degrees ,(see body of report)
	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • The DP-DP line spacing is appropriate for early stage exploration only • The true thickness, grade continuity along strike and down dip is unknown at this time and will require more detailed drilling.
	<ul style="list-style-type: none"> • Whether sample compositing has been applied. 	<ul style="list-style-type: none"> • No sample compositing applied.



Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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. 	<ul style="list-style-type: none"> DP-DP 7 lines orientated 60 degrees which is approximately right angles to the geology. Line spacing is 100m to 150m apart. With one line 250m apart. 1 long section DP-DP orientated 330 degrees ,(see body of report) along the strike of the mineralisation Orientation of the DP-DP lines is considered appropriate for the orientation of the mineralisation
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> No new assays reported in this release
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No audits or reviews undertaken.



Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The Mt Isa East project is centred around 50 km south-east of Mount Isa. The drilling reported here took place at the King Solomon prospect which are located within EPM 27700. The tenements (specifically EPM 27700) referred to in this release are held jointly by Revolution Mining Pty Ltd (15%) and Cooper Metals Ltd (85%).
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The tenements are secure under Qld legislation.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> The historical tenure reports indicated that several companies have explored the project area over the last 50 years. Exploration has mainly consisted of geochemical sampling of rock and soil. Geological mapping and acquisition of airborne magnetics. Limited historical drilling is recorded within the Qld Government database "GeoResGlobe". At the King Solomon prospect, several old workings strike over a length of 1.5 km. Past production from the King Solomon Group is quoted as producing 894 tonnes at 5.3% Cu with a further 2195 tonnes of cupriferous limestone flux at 2.3% Cu. Cooper has completed three RC drill programs at King Solomon in 2022. This release covers the latest RC drill program (number 3). The Company completed drilling for the first time at Python as part of this drill program. There has been limited previous exploration of copper-gold mineralisation has occurred on the prospect. Reconnaissance mapping and soil and rock chip geochemical sampling programs were undertaken by Aberfoyle Resources Ltd explored the King Solomon prospect area under EPM 10123 from 1994 to 1995. Eastern Copper Mines NL in 1996 Chinalco in 2014 and then by Hammer Metals in 2016. First pass geochemical sampling (rock chip) was conducted by Cooper Metals under the current tenure in 2021. A fixed loop ground electromagnetic survey (FLEM) was undertaken in early 2022. The work resulted in the identification of preliminary drill targets at King Solomon. An induced polarisation survey was completed at King Solomon and Python prospects by Cooper in 2022.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Mt Isa East Project is located within the Mt Isa Inlier. The EPM 27700 tenement straddles a major geological boundary between the Kalkadoon-Leichhardt Belt to



Criteria	JORC Code explanation	Commentary
		<p>the west and the Eastern Fold Belt to the east.</p> <ul style="list-style-type: none"> At the King Solomon prospect is centred on several old workings defining a strongly mineralised zone of stratabound copper-gold (the King Solomon Trend) which strikes over a length of 1.5 km. The mineralisation is within the lower Corella Formation close to the contact with the underlying Ballara Quartzite. Conceptually, the mineralisation occurs within a highly prospective sequence of the Corella Formation, particularly the more dolomitic parts of the sequences. The presence of a small intrusion of the younger Burstall Granite indicates that heat may have been available for the mobilisation of substantial volumes of hydrothermal metal-bearing fluids. At surface the mineralisation is associated with calcite lodes and quartz veins hosting copper carbonates (malachite and azurite) and chalcocite. The adopted exploration model for the Mt Isa East tenements targets the IOCG model and low-tonnage, high grade, shear-hosted deposits.
Drill hole Information	<ul style="list-style-type: none"> 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 style="list-style-type: none"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 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. 	<ul style="list-style-type: none"> No new drill holes in this release
Data aggregation methods	<ul style="list-style-type: none"> 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. 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 The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> No new assays in this release
		<ul style="list-style-type: none"> No new assays in this release



Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known'). 	<ul style="list-style-type: none"> No new assays in this release The nature and dip of the mineralisation are still being evaluated. At King Solomon 1 the mineralisation appears to dip sub vertically.
Diagrams	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> A collar plan of all collar locations are provided in the main body of this announcement A compilation of drill data and IP chargeability data is provided in long section. The 3D IP model completed by a consultant geophysicist employed by Cooper Metals Ltd
Balanced reporting	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> All exploration results have been reported five of the nineteen holes drilled in November 2022.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Considerable historical work was completed with mapping sampling and geophysics This work needs further review. Assay results from the drilling will be reported on receipt of the results IP survey has been completed and data is presented in this report
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling). 	<ul style="list-style-type: none"> Early-stage exploration and follow-up of identified Cu and Au anomalies including additional interpretation of geophysical data, reviews and assessments of regional targets, and infill geochemical sampling of ranked anomalies in preparation for future drill testing. Cooper Metals Ltd plans to continue RC drilling at its King Solomon Prospect testing deeper and laterally distal extensions of the copper mineralisation successfully intersected in the current program. Refer main body of the report.
	<ul style="list-style-type: none"> Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> Refer to the figures in this report.