CASTILLO COPPER LIMITED

ASX Release

8 February 2018

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Issued Capital:
580.1 million shares
67.5 million options

ASX Symbol:
CCZ

Significant massive sulphide mineralisation drilled at Cangai Copper Mine

- **Newly discovered massive sulphides intersected at Cangai Copper Mine (Cangai) with the best hole intersecting 30m thick mineralisation between known JORC modelled lodes**
- **Highly encouraging sulphide mineralisation intersected in 7 out of 8.5 drill-holes completed at drill-pad 3 (DP3), clearly demonstrates the halo between the lodes is mineralised**
- **Drill program designed to target sulphide mineralisation, with the clear objective to materially increase the current JORC compliant gross tonnage of Cu-Zn-Au-Ag**
- **Exciting sulphide mineralisation floated off samples during the washing/logging process (refer Photo Gallery)**
- **Geology team is delighted with drilling campaign progress, as it confirms the accuracy of the current JORC modelled zone – assay results will be released in due course**
- **Wet weather halted the drilling program for several days, but it has resumed, with two remaining drill-holes to be completed at DP3 then four each at DP1 and DP2**
- **With a further 2,000m to be drilled (DP3: 1,280m) and a down-hole electromagnetic survey, the geology team is testing the halo for incremental high-grade sulphide mineralisation, extensions to existing lodes and conductors discovered during recent FLEM survey[1]**
- **Shallow drilling for high-grade supergene mineralisation, which is closer to historic workings, will be targeted in stage two of the drilling program – this is pending regulatory approval of the variation**
- **Bulk channel sampling all the legacy high-grade stockpiles is continuing; samples will be sent for analysis**

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Castillo Copper's Executive Director Alan Armstrong commented: *"The Board is highly encouraged by the progress of the drilling campaign to date, particularly the news highly mineralised sulphide zones have been intersected. Our objective is to re-open Cangai Copper Mine and so far the evidence suggests we are on track to achieve this goal."*

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Castillo Copper Limited's ("CCZ" or "the Company") Board has received an updated drilling progress report from the geology team at Cangai Copper Mine (Cangai). Outstanding drilling logs confirmed that 7 out of 8.5 drill-holes intersected copper oxide (malachite) and sulphide mineralisation (chalcopyrite-pyrite-pyrrhotite), with the best being 30m thick in an untested area, between two known JORC modelled lodes. Progress has been encouraging, especially intersecting highly mineralised sulphides ranging from disseminated and breccia sulphides on the outer zones trending to semi-massive/massive veins within the core of the shear zone. Importantly, the drilling program has confirmed the veracity of the current JORC model and clearly implies there is significant potential resource size upside.

[1] Refer ASX release 8 January 2018

CANGAI DRILLING CAMPAIGN UPDATE

Results from DP3 – new mineralisation discovered in halo between lodes

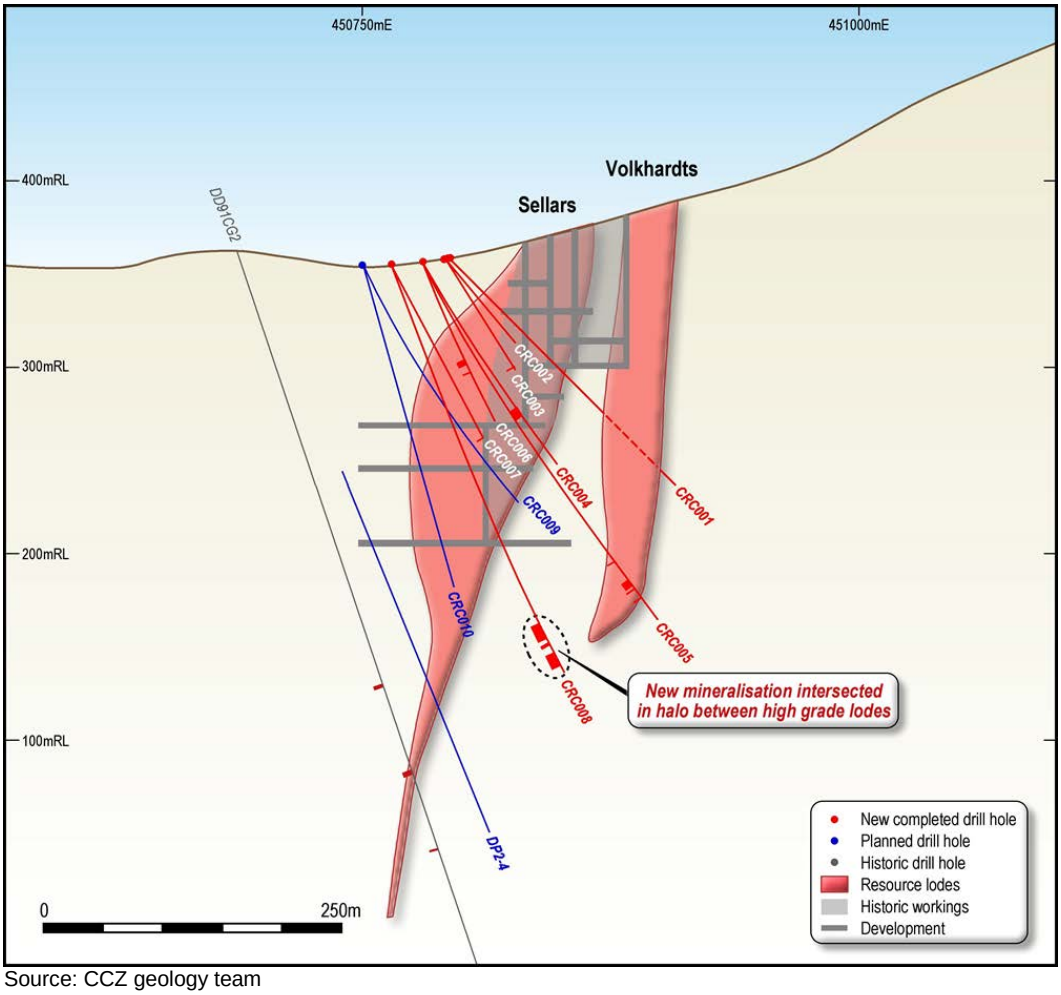
The initial plan for the drilling program, prior to undertaking the fixed loop electro-magnetic (FLEM) survey, was to:

- test the location of the historic workings;
- identify the extent of mineralisation within the resource shells; and
- explore the untested halo between the high-grade lodes.

However, following the FLEM survey, which identified five anomalies beneath and external to the line of lode[1], the drilling plan was altered to accommodate 10 drill-holes at DP3, then four each at DP1 and DP2.

From DP3, which focused on difficult terrain near Sellars and Volkhardt's Lodes, 8.5 drill-holes (1,280m) were completed (prior to adverse weather setting in), resulting in new mineralisation being intersected between the high-grade lodes.

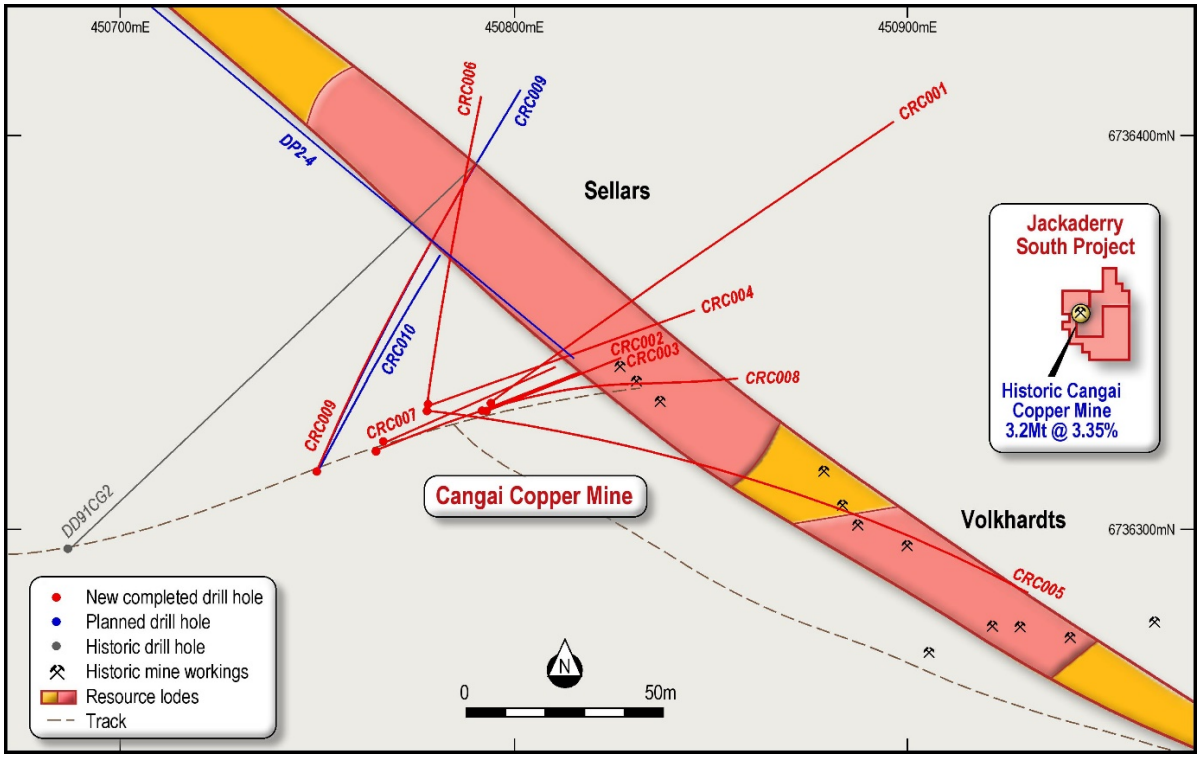
FIGURE 1: CROSS SECTION – SELLARS AND VOLKHARDTS LODES



Source: CCZ geology team

Zooming in for greater clarity from a top-down view, Figure 2 shows the completed and planned final drilling from DP3 as well as one prospective drill-hole from DP2 along the line of lode.

FIGURE 2: ZOOMED IN PLAN OF THE COMPLETED DRILLING AT SELLARS LODE



Source: CCZ geology team

A summary of the drilling results for the first eight drill-holes follows:

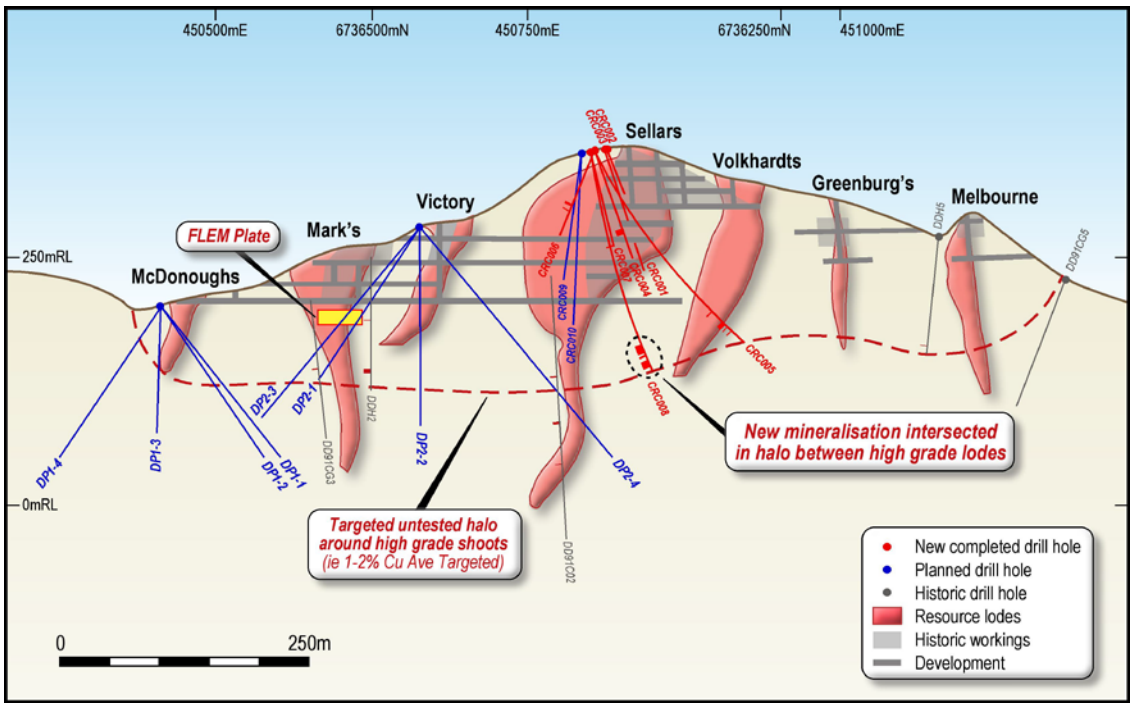
- Sulphide mineralisation (chalcopyrite-pyrite-pyrrhotite) was intersected in seven drill-holes (Drill-holes CRC003-CRC009 which are detailed in Appendix A);
- Four drill-holes (CRC002-CRC004 & CRC007) intersected Sellars' Lode workings which enabled accurate 3D model calibration, positioning of the historic workings and mineralisation within the Line of Lode; copper oxide (malachite) and sulphide mineralisation (chalcopyrite-pyrite-pyrrhotite).
- The veracity of the initial resource model was supported by drilling (CRC004) that intersected mineralisation in the halo prior-to-and-beyond the workings (refer Photo Gallery);
- In addition, the model's accuracy was confirmed at Volkhardts' Lode which was successfully intersected at 222m (CRC005), returning exciting sulphide mineralisation (chalcopyrite-pyrite-pyrrhotite) that floated off samples during the washing/logging process (refer Photo Gallery);
- Mineralisation was intersected within the unmined portion of Sellars' resource shell (CRC006), which is away from the historic workings;
- Demonstrating the geology team's theory – that the halo between high-grade historic lodes is mineralised – a 30m thick zone of extremely encouraging sulphide mineralisation (chalcopyrite-pyrite-pyrrhotite)was intersected between Sellars and Volkhardts Lodes (CRC008);
- Specifically, the sulphide mineralisation ranged from disseminated (trace-5% estimated sulphide) and breccia sulphides (5-20% estimated sulphide) on the outer zones trending to semi-massive/massive veins (20-60% estimated sulphide) within the core of the shear zone; and
- Samples from this first round of drilling have been sent to the laboratory for complete analysis with results due soon.

Objectives for balance of the drilling program

After reviewing the results from DP3, the geology team is aiming to develop a large bulk open pit resource at Cangai. The team will be gathering further evidence over the balance of the drilling campaign to increase the current JORC compliant Cu-Zn-Au-Ag resource.

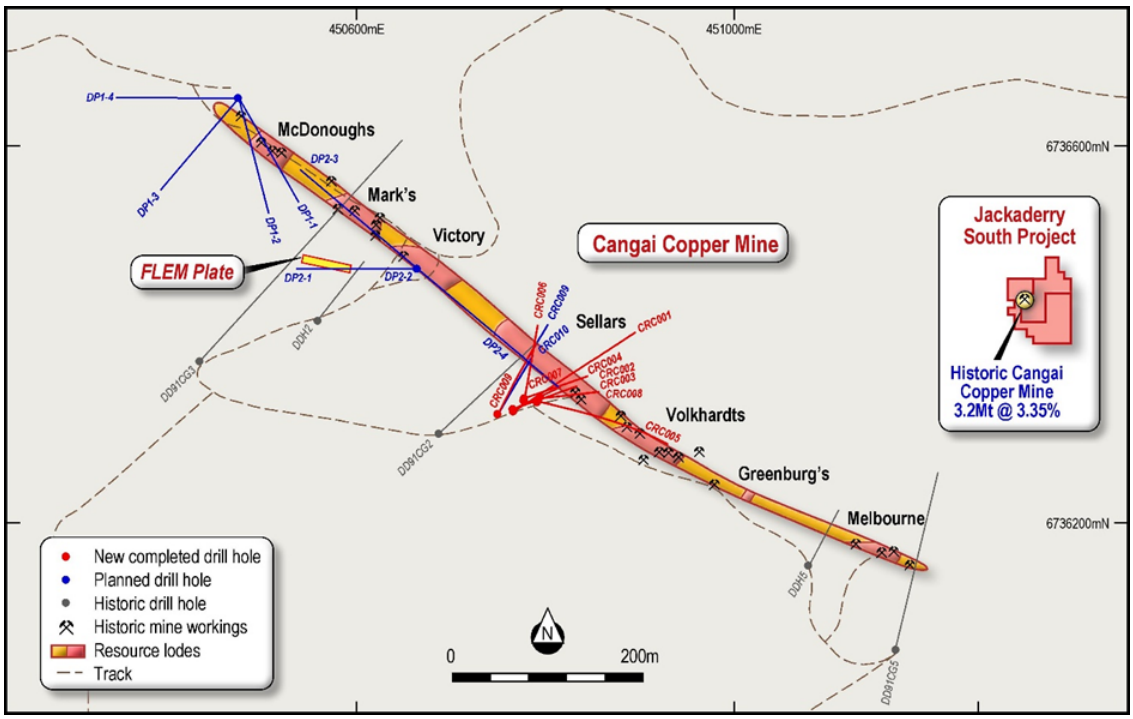
The positions of DP1 and DP2 have been configured to assess the degree of mineralisation within the untested halo as well as testing the Anomaly B FLEM target (Figure 3 and 4).

FIGURE 3: CROSS SECTION VIEW – TARGETS FOR UNTESTED HALO



Source: CCZ geology team

FIGURE 4: TOP DOWN VIEW – TARGETS FOR UNTESTED HALO



Source: CCZ geology team

Looking forward, to conclude the current drill program the following is planned:

- The priority will be completing drill-holes CRC009 and CRC010 at DP3, then move the rig down the hill to DP2;
- An incremental 2,000m is slated to be drilled across eight drill-holes at DP1 and DP2, which should conclude stage 1 of the campaign and focus on identifying sulphide mineralisation; and
- For the deeper drill-holes (including CRC005 & CRC008 which originated from DP3), down-hole electromagnetic surveying is planned to test the halo for the presence of additional high-grade sulphide shoots and extensions/thickening of the existing modelled lodes.

Next steps

As the current drilling program has targeted sulphide mineralisation at depth, the next phase is to undertake shallower drilling targeting supergene mineralisation. This requires approval from the regulator as new tracks and drill pads will need to be set up closer to legacy workings.

The other task the geology team is focusing on is completing bulk channel sampling the legacy stockpiles, so they can be analysed to determine if they are suitable for direct shipping ore.

Conclusion

The Board is pleased with the progress of the current drilling campaign and looks forward to updating the market as further results materialise.

For and on behalf of Castillo Copper

David Wheeler

Chairman

COMPETENT PERSON STATEMENT

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Neil Hutchison, a Competent Person who is a Member of the Australian Institute of Geoscientists. Neil Hutchison is an executive director of Castillo Copper Ltd.

Neil Hutchison 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'. Neil Hutchison consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Australian Securities Exchange has not reviewed and does not accept responsibility for the accuracy or adequacy of this release.

ABOUT CASTILLO COPPER

Castillo Copper Limited (ASX: CCZ) is an ASX-listed base metal explorer – primarily focused on copper, cobalt, zinc and nickel – that has the bulk of its core operating assets in eastern Australia.

The Australian assets comprise four tenure groups that collectively hold 12 highly prospective copper-cobalt-zinc-nickel project areas in New South Wales and Queensland, detailed briefly as follows:

- **Jackaderry Project** – comprises three prospects (two in the south that are contiguous) in the New England Orogen in NSW which are highly prospective for copper-cobalt-zinc. Of significance is the historic Cangai Copper Cobalt Mine (within Jackaderry South) as legacy data confirms the presence of supergene ore with up to 35% copper and 10% zinc which implies direct shipping ore is potentially feasible. On 6 September 2017, CCZ announced one of Australia's highest grade JORC compliant Inferred Resources for copper: 3.2Mt @ 3.35%.
- **Broken Hill Project** – consists of two contiguous tenements that are located within a 20km radius of Broken Hill, NSW, that are prospective for copper-cobalt-zinc. A key feature of the project is an area in the southern part of the tenure, which exhibits significant high-grade zinc mineralisation.

- **Mt Oxide Project** – made up of three prospects (two are contiguous) in the Mt Isa region, northwest Queensland, and are well known for copper-cobalt systems.
- **Marlborough Project** – includes three prospects that are located north-west of Gladstone (adjacent to Queensland Nickel mining leases) in an area, which is made up of proven high-grade cobalt-nickel systems. .

Castillo Copper also holds wholly-owned Chilean assets comprise of six exploration concessions across a total area of 1,800 hectares that are well known for high grade copper-gold projects.

PHOTO GALLERY

Photo 1: Sulphides (chalcopyrite-pyrite-pyrrhotite) floating off the geologists logging samples in hole CRC005: 222 to 223m

Photo 2: Sulphides (chalcopyrite-pyrite-pyrrhotite) hosted in andesitic volcanics from Sellars Lode in CRC003: 67 to 86m

Photo 3: Selected surface gossans - copper oxide (malachite) and sulphidic rocks (chalcopyrite-pyrite-pyrrhotite) from Sellars Lode / stockpiles (refer Historical Mine Working locations at Sellars Lode on Figure 2)

Photo 4: Oxide (malachite) & sulphide mineralisation (chalcopyrite-pyrite-pyrrhotite) occurring in drill chips (CRC004: 93 to 94m) through Sellars Lode

APPENDIX A: RC-DRILLING SUMMARY AT CANGAI COPPER MINE

Drill Hole Collar and Intersection Summary

HOLE_ID	EAST	NORTH	RL	DIP	AZI_GDA	DEPTH_TARGET	DEPTH-EOH	PLANNED DHEM	LODE	COMMENTS
CRC001	450794	6736332	358	-45	53.7		174	N	North of Sellars	No Significant mineralisation
CRC002	450792	6736330	358	-50	56.7	60	58	N	Sellars	Hit workings @ 52-58m
CRC003	450793	6736330	358	-60	66.7	70	71	N	Sellars	Sulphides from 67-69m. Hit workings @ 69m-71m
CRC004	450778	6736331	357	-60	67.2	95	133	N	Sellars	Sulphides from 92-102m. Cavitys @ 79-81m, 85-87m & 97-98m
CRC005	450778	6736330	357	-60	93.2	190	252	Y	Volkhardts	Sulphides from 221-226m & 234-235m
CRC006	450778	6736330	357	-50	9.7	75	120	N	Sellars	Sulphides from 69-73m
CRC007	450765	6736320	356	-65	63.7	150	107	Y	Sellars	Weak sulphide 106-107m. Hit workings at 107m
CRC008	450765	6736320	356	-70	67.7	195	240	Y	Halo Zone	Sulphide from 209-239m
CRC009	450750	6736315	355	-55	22.7	125	126	Y	Sellars	Sulphide from 100-103m. Hole in progress to 170m depth
							1281m			

Mineralisation Intersection Summary

HOLE_ID	FROM m	TO m	Sulphide	Sulphide Nature	Sulphide est %	LODE	COMMENTS
CRC003	67	~68.5	Cpy-Py	Breccia	~15%	Sellars	Sulphides from 67-69m. Hit workings @ 69m-71m
CRC004	91	95	Mal-Cpy-Py-Lim	Semi Massive	>20%	Sellars	Sulphides from 91-102m. Cavitys @ 79-81m, 85-87m & 97-98m
	95	97	Mal-Py	Dissem	<1%		
	98	102	Cpy-Py	Dissem	~2%		
CRC005	221	223	Cpy-Py-Pyrh	Semi Massive	>20%	Volkhardts	Sulphides from 221-226m & 234-235m
	223	226	Cpy-Py-Pyrh	Dissem-Breccia	~1-8%		
	234	235	Py-Pyrh	Dissem	~1%		
CRC006	69	73	Cpy-Py-Pyrh	Dissem-Breccia	~1-10%	Sellars	Sulphides from 69-73m
CRC007	106	107	Py-Pyrh	Dissem	<1%	Sellars	Weak sulphide 106-107m. Hit workings at 107m
CRC008	209	213	Cpy-Py-Pyrh	Semi massive-Massive	~10-60%	Halo Zone	Sulphide from 209-239m
	216	219	Cpy-Py-Pyrh	Breccia	~10%		
	221	224	Cpy-Py-Pyrh	Breccia-Semi Massive	~5-20%		
	227	233	Cpy-Py-Pyrh	Semi massive-Massive	~10-50%		
	233	239	Cpy-Py-Pyrh	Dissem	~1-5%		
CRC009	100	103	Py-Pyrh	Dissem	~1-2%	Sellars	Sulphide from 100-103m. Hole in progress to 170m depth

Cpy=Chalcopyrite
Mal=Malachite
Py=Pyrite
Pyrh=Pyrrhotite
Lim=Limonite
Dissem=Disseminated

Note: *Mineralised zones are identified by the field geologist and flagged as geological/mineralised zones. The estimated sulphide percentage shown in Appendix A show the range of sulphides percentages logged and are pending assay results. Washing of the pulverized rock samples by the geologist at the rig results in considerable sulphides being washed away and are reported on the lower side of the sulphide percentage range for the interval.*

APPENDIX B: JORC CODE, 2012 EDITION – TABLE 1 REPORT TEMPLATE; CANGAI DRILLING PROGRAM UPDATE 8TH FEBRUARY 2018

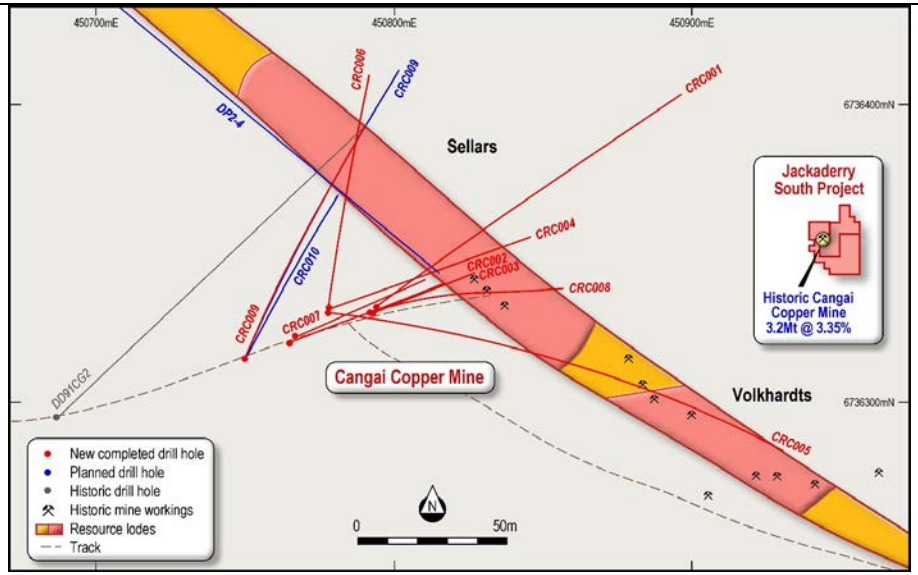
Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)

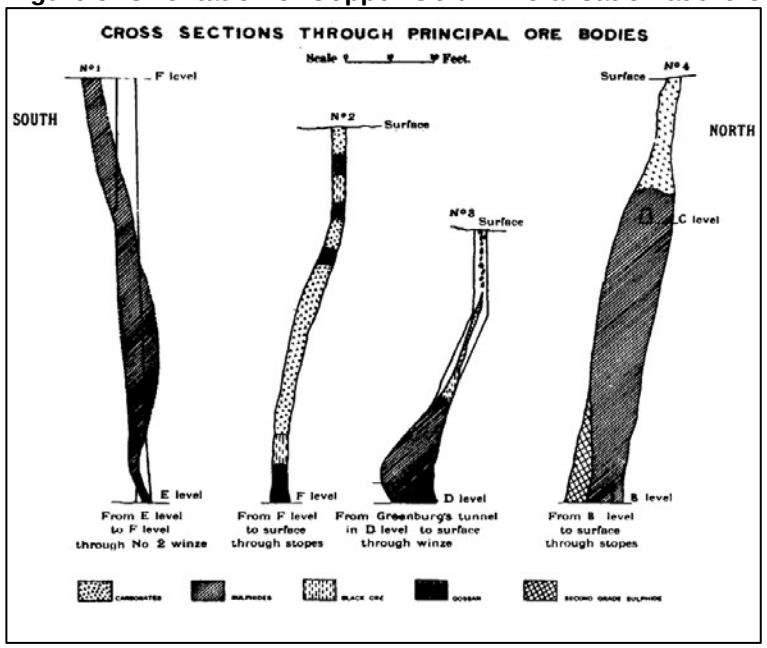
Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). 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 (e.g. '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.*	Samples from the Cangai drilling program were collected using the reverse-circulation method of drilling on a 1 metre basis. Initially 20-25kg of chips and dust was collected and riffled down to a 1-2kg sample for further lab analysis. From drillhole CRC003, a portable XRF machine was available to initially analyse the final samples, again on a metre-by-metre basis. The PXRF Analysis on rock samples was carried out by using a handheld NITON XLt3 950 Portable XRF analyser. Measurements were taken on the surface of the sample chips and dust in several positions to estimate average grades for the sample. The pXRF unit is used to selected samples which require individual analysis vs composite (5m) sampling of non mineralised samples. All samples are delivered for to ALS Laboratory in Orange NSW where the lab undertakes the splitting and compositing of the 5m composite samples and undertakes multi-element analysis on the 1m and 5m composite samples. The drilling program completed to date is shown in Table A1 at the end of this section

Drilling techniques	•	*Drill type (eg 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.).*	• Drilling was provided by Budd Drilling using a modified track-mounted UDH RC rig as illustrated below: 
Drill sample recovery	• • •	*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.*	• Sample recovery was generally 90-100% for each metre except when mining cavities (workings >5m wide) were intersected. Circulation and sample was lost in CRC002, 3 & 7 as these holes terminated in workings, but CRC004 was able to progress through the cavity zones and mineralised wallrocks between the cavities to planned depth, despite the fact that the three workings intersected were 2 metres wide, in each instance. Drill recovery was lower through these zones.
Logging	• •	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* *Whether logging is qualitative or quantitative in nature.* *Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged*	All drilling has been completed to high modern-day standard by a competent field teams & drill crew. Logging of the lithology has been to coded sheets for data entry into Excel and added to the geology database. Plastic chip trays were used to store sample on 1m intervals for future reference as illustrated below: No downhole geophysical logging has yet place, but downhole EM is planned mid way through the drilling program. Budd Drilling has provided a single shot tool for hole deviation. Readings are taken every 30m downhole. Hole deviations are inline with expectations and follow the trend of the geological fetures.

			
Subsampling techniques and sample preparation	• • • • • •	*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.*	• • • Industry acceptable standards and blanks were used as certified reference material to ensure satisfactory performance of the laboratory. Results are awaiting and assay results will be compared will be compared with expected results
Quality of assay data and laboratory tests	• • •	*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*	• Multi-suite analysis methodology is being completed by ALS in Orange NSW, for the following elements ; Ag, As, Se, Ca, K, S, Ba, Sb, Sn, Cd, Pd, Zr, Sr, Rb, Pb, Hg, Zn, W, Cu, Ni, Co, V, Ti, Au, Fe, Mn, Cr, Sc, Mo, Th, U, Ta. Samples containing >5000ppm Cu being tested for Au by fire assay.

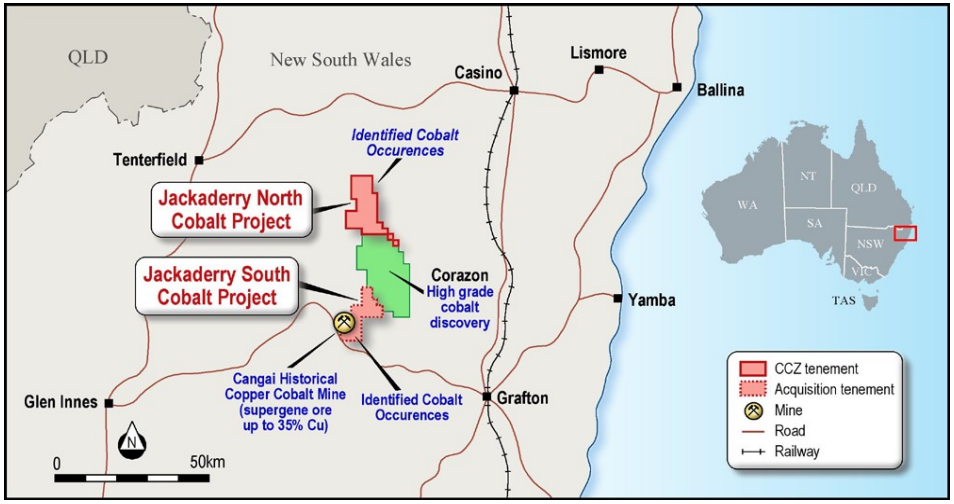
		accuracy (ie lack of bias) and precision have been established.		
Verification of sampling and assaying	•	*The verification of significant intersections by either independent or alternative company personnel.*	•	Field reading of multi-elements are estimated using NITON XLt3 950 Portable XRF analyser as conducted as in internal check prior to sending samples for laboratory analysis. Reading times using 2 beam Geochem Mode was employed via 30sec/beam for a total of 60 sec. All logging and sampling data is collected and data entred into excel spread sheets. Data is send to consulting geologist in Brisbane and Perth for compilation, correlation and data base inclusion prior to being interpreted.
	•	*The use of twinned holes.*		
	•	*Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*		
	•	*Discuss any adjustment to assay data.*		
Location of data points	•	*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.*	•	Drill pads were initial located using an RTK differential GPS. Drillholes collar locations have been picked using a Garmin handheld GPS to $\pm$3m. At completion all drill hole will be accurately surveyed. Collars RLs are corrected and tagged to a recently completed Drone DTM topography model which has accuracies for AHD of ±0.3m.
	•	*Specification of the grid system used.*		
	•	*Quality and adequacy of topographic control.*		
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*			Ten drill holes are planned (8.5 completed) at the Sellars Lode drill site (DP3) with differing dips and orientations in order to intersect and wide spread of targets so as to determine geological and grade continuity for future mineral resource estimation work. Assay results are pending and results have not been composited in the database (other than the 5m sample composites of non mineralised samples at the lab).


450700mE
450800mE
450900mE
6736400mN
6736300mN
Sellars
Volkhardts
Cangai Copper Mine
Jackaderry South Project
Historic Cangai Copper Mine
3.2Mt @ 3.35%
DP2.4
CRC006
CRC009
CRC001
CRC004
CRC002
CRC003
CRC008
CRC010
CRC009
CRC007
DD91CG2
CRC005
New completed drill hole
Planned drill hole
Historic drill hole
Historic mine workings
Resource lodes
Track
N
0
50m

Orientation of data in relation to geological structure	• *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.*		• The drilling is planned to intersect workings and drill into data gaps between orebodies such that in general the intersections are where possible (due to restricted acess) perpendicular to a strike of 126 degrees. • Additional surface bedding and foliation data, and that from some of the accessible underground mine adits was compiled from a UNSW Honours thesis (Brauhart 1991). Information is available from underground workings, open cut(s), shaft(s), adit(s), shallow pits and scrapings. The Lode sub-vertical to vertical, striking 126 degrees true north and pitching at 60 degrees to the west. The high-grade ore as mined, varies from 0.3m-3.9m wide The known copper-gold mineralisation around Cangai strikes from 290-330 degrees, with the major orebody shapes shown by Figure 3, below: **Figure 3: Orientation of Copper-Gold Mineralisation at the Cangai Mine**  It should be noted that these orebody shapes were drawn at >13% Cu so that the modelled wireframes in this current resource have been enlarged to try to capture mineralisation down to 1% Cu

Sample security	• *The measures taken to ensure sample security.*	• Samples were bagged and have been delivered by Gnomic Exploration Staff to ALS Orange who on-freighted them to ALS Laboratories Brisbane. Results are awaiting.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews have yet been undertaken. This will commence once all assy results have been received.

Section 2: Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section)

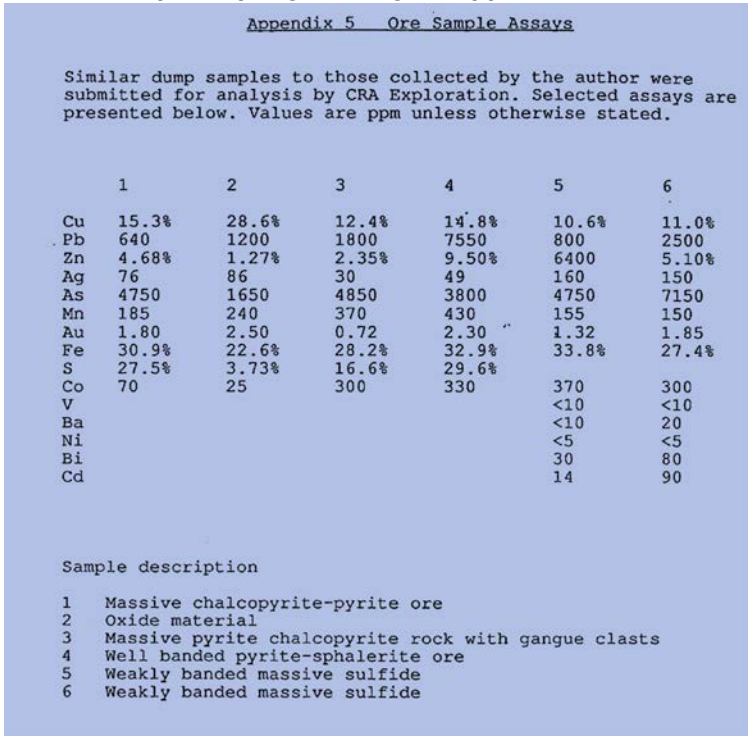
Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *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.*	• Castillo Copper holds 100% of EL 8625 & EL 8635. The tenure has been granted for a period of thirty-six months until 17th July 2020, for Group 1 minerals. The location of the tenure is shown in Figure A2.1 below: **Figure A2.1: Location of EL 8625 and EL8635 Jackaderry South**  The cuurent drilling has all been completed on EL 8625: Jackaderry South.

Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Some mining history and discovery information provided by North Broken Hill Ltd (1970) is as follows: **Cangai** The Cangai copper mine, located 10 km north west of Jackadgery, is one of the richest copper and gold mines in the region. This deposit was discovered in 1901 by J. Sellers and was subsequently mined by the Grafton Copper Mining Company Ltd from 1904 to 1917. A copper smelter was built and a substantial village with a sawmill developed. Recorded production is 5080 tonnes of copper, 52.7 kg of gold and 1035 kg of silver (Henley and Barnes 1992). The mine was unusual in that its discovery post-dated much of the initial mineral discoveries in New England. It had the distinction of paying its own way from ore produced from the mine and paid rich dividends to its shareholders as a result of the rich ore and the low production costs related to the self fluxing ore and that ore could be easily hauled downhill to the smelter. The mine prompted upgrades to roads and communications into the area. Previous explorers (Brownlow, 1989; Abraham-Jones, 2012) have noted that a 'basement window' of exposed magmatic hydrothermal alteration and historical copper workings may represent the western and upper extent of a much larger hydrothermal system concealed under Mesozoic cover to the east, prospective for: • Quartz-tourmaline-sulphide-cemented, magmatic-hydrothermal breccia hosted copper-gold-molybdenum-cobalt (Cu-Au-Mo-Co) deposit; • Concealed porphyry copper-gold-molybdenum-cobalt (Cu-Au-Mo-Co) ore body associated with quartz diorite to tonalitic porphyry apophyses proximal to the tourmaline-sulphide cemented breccia's; • Potential also exists for copper-gold (Cu-Au) skarn; Considerable exploration has taken place in and around the Cangai Copper Mine (closed) by several large explorers such as Western Mining and CRA Exploration, the results of which are covered in the Local Geology section

Geology	•	*Deposit type, geological setting and style of mineralisation.*	Regional Geology The underlying geology is contained within the Coffs Harbour Block, east of the Demon Fault. The major basement unit is the Silurian-Devonian Silverwood Group (locally the Willowie Creek Beds), a mixed sequence of tuffaceous mudstones, intermediate to basic igneous rocks, slates, and phyllites, a low stage of regional metamorphism. Overlying this rock formation is a younger tectonic melange of Early Carboniferous age – the Gundahl Complex of slates, phyllites and schist, with chert, greenstone and massive lithic greywackes. These rocks are intruded by the Early Permian Kaloe Granodiorite (tonalite), which also in turn is intruded by numerous later-stage mafic (lamprophyre) dykes. Local Geology The local geology is well understood as considerable exploration has taken place in and around the Cangai Copper Mine (closed) by several major explorers such as Western Mining and CRA Exploration, the results of which are covered in the section below. The mineralisation is controlled by the presence of shear zones within the country rock and persistent jointing. Chloritic alteration is pervasive, with the major minerals identified (Henley and Barnes 1990) as: • **Azurite** major ore • **Chalcocite** major ore • **Chalcopyrite** major ore • **Copper** major ore • **Malachite** major ore • **Pyrite** major ore • **Pyrrhotite** major ore • **Arsenopyrite** minor ore • **Sphalerite** minor ore • **Cuprite** minor ore • **Gold** minor ore • **Limonite** minor ore • **Chlorite** major gangue • **Calcite** major gangue • **Quartz** major gangue • **Sericite** minor gangue

		Western Mining 1982-1984 Western Mining found that the recognition of substantial amounts of pyrrhotite in high grade ore collected from mine dumps led to the reappraisal of previous explorer's ground magnetics (Brown, 1984). Two soil anomalies were identified @ +60ppm Cu (max 1100ppm) and several strong linear magnetic anomalies (=250nT above background). Soil sampling and detailed ground inspections conducted over the linear magnetic high failed to identify any anomalous geochemistry or a possible source lithology. A 180m diamond drill hole was drilled to test the anomaly. Given the poor results of both the drilling and the follow-up stream sediment sampling, no further work was recommended. The decision was made to relinquish the licence in 1984. **CRA Exploration 1991-1992** CRA Exploration examined the geological form, setting and genesis of the mineralisation at the Cangai Copper Mine over several years. The work carried out consisted of geological mapping, collection of rock chip samples, and underground investigations at the mine site. Drill core from a CRA exploration program and mine dumps were also inspected. They concluded that the Cangai Copper Mine is hosted by sedimentary rocks of the Siluro-Devonian Willowie Creek Beds of tuffaceous mudstones, tuffaceous sandstones and conglomerates. Mineralisation appears to be associated with steeply plunging ore shoots in and adjacent to the main shear zone (Figure A2.2). Massive primary ore consists of chalcopyrite, pyrite and pyrrhotite with lesser sphalerite and minor arsenopyrite and galena. A detailed, well documented report was produced, but no reasons were given for the relinquishment of the licence.

Figure A2.2: Rock Chip Sampling at Cangai Copper Mine



Appendix 5 Ore Sample Assays

Similar dump samples to those collected by the author were submitted for analysis by CRA Exploration. Selected assays are presented below. Values are ppm unless otherwise stated.

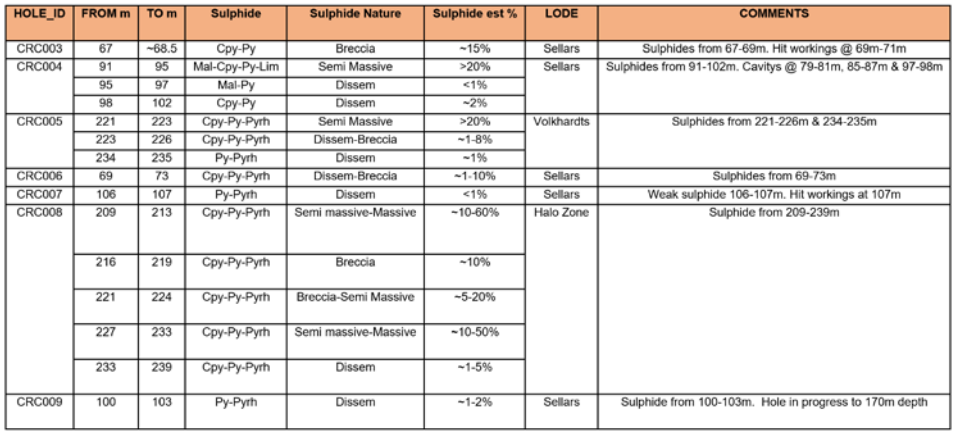
	1	2	3	4	5	6
Cu	15.3%	28.6%	12.4%	14.8%	10.6%	11.0%
Pb	640	1200	1800	7550	800	2500
Zn	4.68%	1.27%	2.35%	9.50%	6400	5.10%
Ag	76	86	30	49	160	150
As	4750	1650	4850	3800	4750	7150
Mn	185	240	370	430	155	150
Au	1.80	2.50	0.72	2.30	1.32	1.85
Fe	30.9%	22.6%	28.2%	32.9%	33.8%	27.4%
S	27.5%	3.73%	16.6%	29.6%		
Co	70	25	300	330	370	300
V					<10	<10
Ba					<10	20
Ni					<5	<5
Bi					30	80
Cd					14	90

Sample description

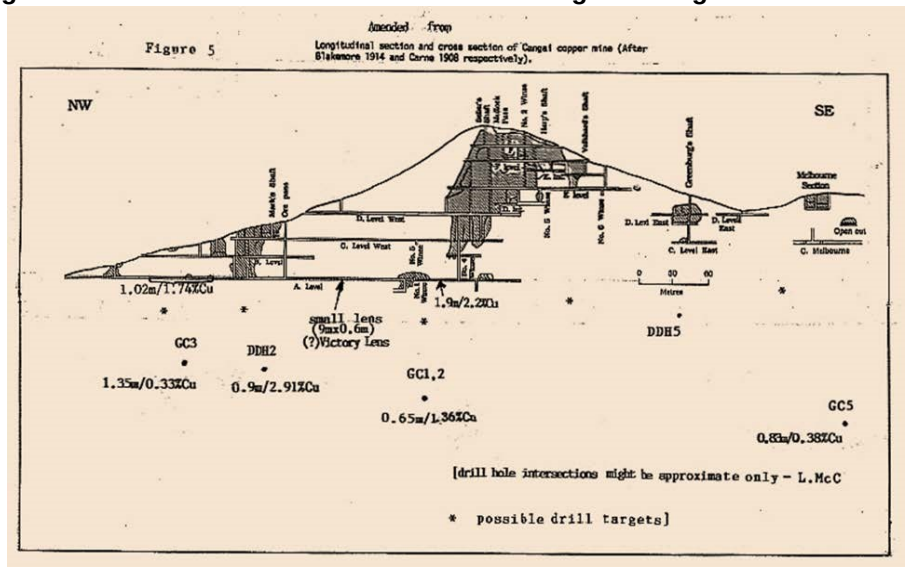
1 Massive chalcopyrite-pyrite ore
2 Oxide material
3 Massive pyrite chalcopyrite rock with gangue clasts
4 Well banded pyrite-sphalerite ore
5 Weakly banded massive sulfide
6 Weakly banded massive sulfide

Drill hole Information	•	*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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* • o *down hole length and interception depth* o *hole length.* *If the exclusion of this information is justified on the basis that the information is not Material and this*	Drill hole summary table and intersection summary tables are included as Appendix A Drill Hole Collar and Intersection Summary Table

HOLE_ID	EAST	NORTH	RL	DIP	AZI_GDA	DEPTH_TARGET	DEPTH-EOH	PLANNED DHEM	LODE	COMMENTS
CRC001	450794	6736332	358	-45	53.7		174	N	North of Sellars	No Significant mineralisation
CRC002	450792	6736330	358	-50	56.7	60	58	N	Sellars	Hit workings @ 52-58m
CRC003	450793	6736330	358	-60	66.7	70	71	N	Sellars	Sulphides from 67-69m. Hit workings @ 69m-71m
CRC004	450778	6736331	357	-60	67.2	95	133	N	Sellars	Sulphides from 92-102m. Cavitys @ 79-81m, 85-87m & 97-98m
CRC005	450778	6736330	357	-60	93.2	190	252	Y	Volkhardts	Sulphides from 221-226m & 234-235m
CRC006	450778	6736330	357	-50	9.7	75	120	N	Sellars	Sulphides from 69-73m
CRC007	450765	6736320	356	-65	63.7	150	107	Y	Sellars	Weak sulphide 106-107m. Hit workings at 107m
CRC008	450765	6736320	356	-70	67.7	195	240	Y	Halo Zone	Sulphide from 209-239m
CRC009	450750	6736315	355	-55	22.7	125	126	Y	Sellars	Sulphide from 100-103m. Hole in progress to 170m depth
							1281m			

		exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	Mineralisation Intersection Summary  Cpy=Chalcopyrite Mal=Malachite Py=Pyrite Pyrh=Pyrrhotite Lim=Limonite Dissem=Disseminated
Data aggregation methods	•	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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.*	Mineralised zones are identified by the field geologist and flagged as geological/mineralised zones. The estimated sulphide percentage shown in Appendix A show the range of sulphides percentages logged and are pending assay results. Washing of the pulverized rock samples by the geologist at the rig results in considerable sulphides being washed away and are reported on the lower side of the sulphide percentage range for the interval.
Relationship between mineralisation widths and	•	*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*	All intersections are reported as downhole widths. Once assays are returned and the geological controls are fully established, 3D model will determine true widths which will be reported in due course.

HOLE_ID	FROM m	TO m	Sulphide	Sulphide Nature	Sulphide est %	LODE	COMMENTS
CRC003	67	~68.5	Cpy-Py	Breccia	~15%	Sellars	Sulphides from 67-69m. Hit workings @ 69m-71m
CRC004	91	95	Mal-Cpy-Py-Lim	Semi Massive	>20%	Sellars	Sulphides from 91-102m. Cavitys @ 79-81m, 85-87m & 97-98m
	95	97	Mal-Py	Dissem	<1%		
	98	102	Cpy-Py	Dissem	~2%		
CRC005	221	223	Cpy-Py-Pyrh	Semi Massive	>20%	Volkhardts	Sulphides from 221-226m & 234-235m
	223	226	Cpy-Py-Pyrh	Dissem-Breccia	~1-8%		
	234	235	Py-Pyrh	Dissem	~1%		
CRC006	69	73	Cpy-Py-Pyrh	Dissem-Breccia	~1-10%	Sellars	Sulphides from 69-73m
CRC007	106	107	Py-Pyrh	Dissem	<1%	Sellars	Weak sulphide 106-107m. Hit workings at 107m
CRC008	209	213	Cpy-Py-Pyrh	Semi massive-Massive	~10-60%	Halo Zone	Sulphide from 209-239m
	216	219	Cpy-Py-Pyrh	Breccia	~10%		
	221	224	Cpy-Py-Pyrh	Breccia-Semi Massive	~5-20%		
	227	233	Cpy-Py-Pyrh	Semi massive-Massive	~10-50%		
	233	239	Cpy-Py-Pyrh	Dissem	~1-5%		
CRC009	100	103	Py-Pyrh	Dissem	~1-2%	Sellars	Sulphide from 100-103m. Hole in progress to 170m depth

intercept lengths	*(e.g. 'down hole length, true width not known').*	Lode is currently modelled to be sub-vertical to vertical, striking 126 degrees and pitching at 60 degrees west. Varies from 0.3m-3.9m wide. The main mining was from Melbourne, Marks, Sellers & Greenbergs lens. Secondary zone grades averaged 20-35% Cu. Sulphides zone decreased to 8-10% Cu at depth. The Lode largest at intersections. Breccia recorded at D level. The host rock is massive fine-grained intermediate volcanic, and bedding is difficult to define. The deposit is structurally controlled with lodes following or adjacent to the shear zone. A temperature of formation is suggested to be about 380 deg centigrade (Brauhart 1991). Meta-hydrothermal structurally controlled deposit. Figure A2-3, below is a cross-section showing the four (4) main near vertical mineralised zones at the Cangai Mine. **Figure A2-3: NW to SE Cross-section of workings at Cangai Mine**  • Georegistering was undertaken in August and September 2017, particularly the anomalous zones (which are in the process of being digitised off the 1908 and 1912 mine plans (Brauhart 1991), which become priority targets for geological mapping, ground magnetic and EM surveys. • Data is also being extracted from a thorough UNSW Honours Thesis as referenced below: Brauhart, C. (1991). The Geology & Mineralisation of the Cangai Copper Mine, Coffs Harbour Block Northeastern New South Wales. CRAE Report No: 17739. University of NSW.

Diagrams	*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.*	• A plan view, cross section and long section of the of the current and planned drill holes is included in the body text of the announcement.
	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.	• All drillholes completed to date have been reported.
	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.	• Historical explorers have also conducted airborne and ground gravity, magnetic, EM, and resistivity surveys over parts of the tenure area but this is yet to be collated. A new EM Survey has been undertaken and has been previously reported (Multiple conductors discovered from FLEM survey, drill program to be expanded 8th January ASX Release). DHEM surveying is currently being planned.
	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• A further 8 holes have been planned, 4 each from DP1 & DP2. • A second Stage of will be planned to infill the intersected mineralisation and further test the gaps in the Halo mineralisation. The Stage 2 program will require NSW Government approval as a variation to the existing EA permit; • In conjunction with the drilling program a program of comprehensive sampling and surveying of the reject ore and smelting slag stockpiles is being devised with the aim of reporting a JORC resource; • The regional exploration team for EL 8625 & 8635 (Jackaderry South) is also progressing a tenure-wide review of the other copper-gold occurrences that occur along strike to the east, with a view to preliminary ground mapping and EM survey.

Section 3 Estimation and Reporting of Mineral Resources (Criteria listed in section 1, and where relevant in section 2, also apply to this section)

Not applicable to this release