

**ASX Release** 

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ASX/LSE Symbol: CCZ

# CCZ acquires commanding ground position at Broken Hill, prospective for IOCG and BHT

- In a transformational move, which delivers a large footprint proximal to Broken Hill's world-class silver-zinc-lead deposit, CCZ has agreed terms to acquire Wyloo Metals tenements<sup>1</sup>
- The acquisition delivers CCZ a commanding ground position in Broken Hill, while significant technological advances now infer it's footprint is prospective for Broken Hill Type zinc-silver-lead (BHT) and Iron-Oxide-Copper-Gold (IOCG) mineralisation
- Recent work by Geological Survey of NSW (GSNSW)<sup>2</sup>, which generated advanced predictive geological models for major mineral systems (Appendix A), highlighted:
  - CCZ's enlarged tenure is prospective for silver-zinc-lead in the West Zone and copper-gold mineralisation in the East Zone of the enlarged tenure package<sup>2</sup>
- Further, applying this technology has generated numerous high priority drillable targets within the tenure boundaries which delivers a significant pipeline of exploratory work ahead
- Interestingly, conventional exploration methods missed identifying these highly prospective targets as they are below a 5-40m covering of surficial clay and sand<sup>2</sup>
- CCZ is reviewing development plans, as effectively delivers a significant value creating opportunity for copper-gold-zincsilver-lead mineralisation, as the tenure has been largely underexplored over the past two decades

**Castillo Copper's Managing Director Simon Paull commented:** "The advanced predictive geological model has uncovered a potential scalable treasure trove of fresh targets to test-drill for BHT and IOCG mineralisation moving forward. More significantly, most of the new targets are at relatively shallow depth as the surficial clay and sand covering ranges from 5-40m. Our geology team believe with some further localised ground geophysics, a drilling campaign can be formulated and deployed relatively fast."

**Castillo Copper's UK Director Ged Hall commented:** "New technology can change fortunes and that is exactly what has transpired here. Through acquiring more ground in Broken Hill, we now potentially have a scalable asset that is adjacent to the world-class silver-zinc-lead deposit."

**Castillo Copper Limited (ASX: CCZ)** is pleased to announce it has entered into a binding agreement with private group, Wyloo Metals Pty Ltd (ACN 604 832 751), to acquire two (2) tenements complimenting CCZ's existing tenure, located in the mining province of Broken Hill.

The Broken Hill Alliance (Heads of Agreement) ceased effective 22 August 2020.

#### TARGETING LARGE-SCALE BHT AND IOCG MINERALISATION

CCZ's enlarged project comprises a tenure package that is proximal to Broken Hill's world-class silverzinc-lead deposit (Figure 1). Encouragingly, significant technological progress with advanced predictive geological modelling released by GSNSW highlighted the ground is prospective for Broken Hill Type zincsilver-lead (BHT) and Iron-Oxide-Copper-Gold (IOCG) mineralisation.



FIGURE 1: CCZ'S FOOTPRINT IN BROKEN HILL RELATIVE TO THE HISTORIC MINES

Note: 1) Tenure contributions as follows: West Zone (Castillo Copper; ASX: CCZ) and East Zone (previously owned by Wyloo Metals) Source: CCZ geology team (refer CCZ ASX Release – 24 February 2020)<sup>1</sup>

### West Zone: "highly prospective" for BHT style mineralisation

GSNSW's advanced predictive geological models<sup>2</sup> provide fresh insights into previously undetected BHT mineralisation below a 5-40m covering of surficial sand and clay. As shown in Figure 2 below, the model suggests a large part of the West Zone (Red) has high potential to host significant mineralisation for silver-zinc-lead deposits.

More significantly, the "Highly Prospective" reading the model throws off for the West Zone correlates with Broken Hill's core mining leases 25km to the north-east – where significant silver-zinc-lead has been produced historically.

Due to the scale of the "Highly Prospective" area across the West Zone, there are potentially numerous walk-up test drill targets which require simple ratification by a ground geophysical campaign. What's interesting, as shown in Figure 2, is that previous surface sampling and drilling completely missed the areas "Highly Prospective" for BHT mineralisation.

Overall, the model's insights highlight the potential for a new discovery, which materially enhances the exploration upside.



#### FIGURE 2: WEST ZONE – HIGHLY PROSPECTIVE FOR BHT MINERALISATION

Source: GSNSW (refer to Reference 2)

#### East Zone: "highly prospective" for IOCG mineralisation

Applying GSNSW's model to the East Zone (Figure 3) illustrates this area is "Highly Prospective" for IOCG style mineralisation (gold-copper primarily) which complements the BHT potential in the West Zone.

Notably, the East Zone demonstrates one of the largest continuous untested IOCG trends that has surfaced from recent work. This delivers a plethora of potentially walk up drill targets subject to geophysical survey confirmation.

Interestingly, a scarcity of drilling along the south-east portion of the East Zone is due to significant postdepositional cover observed across the entire tenure. However, the insights from the model provide significant incremental exploration upside for IOCG mineralisation, as work so far has mostly focused on outcropping bedrock with areas of cover largely ignored.





Source: GSNSW (refer to Reference 2)

#### **Exploration program**

The immediate priority is to conduct ground geophysics on priority IOCG and BHT targets then commence formulating the inaugural drilling campaign.

### **Transaction Details**

Castillo Copper Ltd, via its 100% owned subsidiary Broken Hill Alliance Pty Ltd, has entered into a binding agreement with private group, Wyloo Metals Pty Ltd, to acquire EL8434 and EL8435. Under the terms of the agreement, CCZ will pay Wyloo \$215,000 cash plus assign a 2% NSR in the event of future mining operations materialising.

Subject to securing NSW ministerial approval and completing tenement transfers by 31 July 2021, CCZ is set to own EL8434 (611.9 km<sup>2</sup>) and EL8435 (72.4 km<sup>2</sup>). On an aggregated basis, this lifts CCZ's tenure package in the region to 801.3km<sup>2</sup> from 117km<sup>2</sup> previously.

### Next steps

These include:

- > Commencement of drilling at the Mt Oxide Project.
- > In fill soil sampling for Mkushi Project in Zambia.
- > Review of Eldorado prospect within the Mt Oxide Project.
- > Exploration plan for Broken Hill project.

For and on behalf of Castillo Copper

#### Simon Paull

#### **Managing Director**

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#### ABOUT CASTILLO COPPER

Castillo Copper Limited is an Australian-based explorer primarily focused on copper across Australia and Zambia.

The group is embarking on a strategic transformation to morph into a mid-tier copper group underpinned by three core pillars:

- **Pillar I:** The Mt Oxide project in the Mt Isa copper-belt district, north-west Queensland, which delivers significant exploration upside through having several high-grade targets and a sizeable untested anomaly within its boundaries in a copper-rich region.
- **Pillar II:** Four high-quality prospective assets across Zambia's copper-belt which is the second largest copper producer in Africa.
- **Pillar III:** Cangai Copper Mine in northern New South Wales, which is one of Australia's highest grading historic copper mines.

The group is listed on the LSE and ASX under the ticker "CCZ."

#### Reference

- 1) CCZ ASX Release 24 February 2020
- 2) Geological Survey of New South Wales. Available at: https://www.resourcesandgeoscience.nsw.gov.au/miners-andexplorers/geoscience-information/geological-survey-of-nsw
- 3) Related to Appendix A:
  - a) Groves I. & Plimer I. 2017. Broken Hill Pb-Zn-Ag deposit. pp 641–646 In: Phillips N. ed. Australian Ore Deposits. Australasian Institute of Mining and Metallurgy Monograph 32, 879 pp.
  - b) Fitzherbert J.A., 2018, A Mineral System Model for Broken Hill Type Pb-Zn-Ag mineralisation In New South Wales, Geological Survey of New South Wales, May 2018, GS2018/0400
  - c) Ford A., Partington G., Peters K., Greenfield J., Blevin P., Downes P., and Fitzherbert J., 2018, Zone 54 -Curnamona Province and Delamerian-Thomson Orogen Mineral Potential Data Package, [Digital Dataset]. Geological Survey of New South Wales, Maitland.

#### **Competent Person Statement**

The information on the page that relates to Exploration Results at Broken Hill is based on information compiled or reviewed by Mr Mark Biggs, a consultant to Castillo Copper Limited. Mr Biggs is a member of the Australian Institute of Mining and Metallurgy (member #107188) and has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, and Mineral Resources. Mr Biggs holds an AusIMM Online Course Certificate in 2012 JORC Code Reporting. Mr Biggs also consents to the inclusion in this report of the matters based on 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.

## **APPENDIX A: ROCK CHIP SAMPLES – ASSAY RESULTS**

## APPENDIX A: GSNSW'S MINERAL POTENTIAL MAP

This prospectivity has been brought to light through the creation of a mineral potential map, which is a predictive science that requires in-depth knowledge of how deposits form, and applying statistical modelling using high quality geoscientific data.

The GSNSW has generated predictive GIS models for each significant mineral system in all NSW basement provinces. The key output is a Mineral Potential Data Package for each province (Ford and others 2018) which has been recently been made publicly available through the Minview portal.

The Zone 54 - Curnamona Province and Delamerian-Thomson Orogen Mineral Potential Data Package represents the results of a mineral potential study of the Curnamona Province and Delamerian-Thomson Orogens in zone 54 in NSW (refer Figure A1).



## FIGURE A1: CURNAMONA PROVINCE STUDY AREA

Source: GSNSW's Mineral Systems team

Pre-competitive datasets have been created and those held by GSNSW have been analysed using weights of evidence spatial modelling techniques to map the potential for Broken Hill type Pb-Zn-Ag and iron-oxide copper–gold mineral systems in the Curnamona Province and orogenic Au and volcanic-associated massive sulfide mineral systems in the Delamerian–Thomson Orogen of the Koonenberry Belt.

The Data Package contains GIS files, study area, predictive maps, and mineral potential maps for each model, a spatial data table that records the methods, processes and spatial statistics for the maps created for each model and a summary report.

Mineral deposit models are used to define modelling parameters applied in the analysis. The input variables include a complete array of data relating to ore formation, arranged into temporal stages of the mineral system process - including metal source, fluid source and pathways, migration to trap and deposit preservation.

The common types of data used by GSNSW for the modelling are:

- Mineral occurrence data, including deposit locations, alteration descriptions, attributed deposit types, and vein structural data
- > Basement geological data, including rock units and structural data
- > Fault data, attributed with age, type and order
- > Geophysical data layers, including magnetics, gravity and radiometrics
- > Geochemical data, including drillhole, stream sediment and surface samples
- > Igneous metallogenic fertility for granites and volcanic rocks
- > Distribution of chemically reactive rocks (for example, black shales and carbonate units)
- Regional metamorphic data
- Field observations

Four significant mineral systems were analysed in the Zone 54 mineral potential study. These were: Broken Hill type Pb-Zn-Ag and iron-oxide copper–gold in the Curnamona Province and orogenic Au and volcanic-associated massive sulfide in the Delamerian–Thomson Orogen of the Koonenberry Belt.

Spatial modelling experts Kenex Pty Ltd and GSNSW's Mineral Systems section used a weights-ofevidence approach, creating up to 132 predictive maps for each mineral system, and included up to 14 maps for the final models.

Eleven predictive maps were used to create this mineral potential map resulting in 8.85% of the study area likely to be prospective, with 2.3% of the area highly prospective. The GSNSW noted that the Pinnacles lies outside the highly prospective area.

The GIS data package has been used to:

- > Assess the quality of the data against exploration models being used
- > Derive anomalous threshold levels for geochemical data
- > Analyse, attribute, and create derivative data from geological and geophysical data
- > Create and test predictive maps that represent different components of the mineral system
- Develop mineral potential maps that map the geological potential of the NSW Zone 54 area for BHT, IOCG, orogenic Au, and VMS mineralisation

## APPENDIX B: JORC Code, 2012 EDITION – TABLE 1

## 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.</li> <li>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> </ul>	<ul> <li>No new samples collected.</li> <li>Historic samples have been discussed in previous ASX releases (Dec17, Mar18. May 18, Sep 18)</li> </ul>
Drilling techniques	• 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).	<ul> <li>No exploration drilling undertaken to date</li> <li>Historical drilling was previously reported in the Table 1 on 2<sup>nd</sup> May 2018</li> </ul>
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>No exploration drilling undertaken to date.</li> <li>Historical drilling was previously reported in the Table 1 on 2<sup>nd</sup> May 2018</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</li> </ul>	<ul> <li>No exploration drilling undertaken to date</li> <li>Historical drilling was previously reported in the Table 1 on 2<sup>nd</sup> May 2018</li> </ul>
	<ul> <li>(or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</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>No samples taken so none to prepare.</li> </ul>
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>Any QA/QC of the assay used in the Mineral Prospectivity maps is discussed by the NSWGS at the following:         <ul> <li>Geological Survey of New South Wales. Available at: https://www.resourcesandgeoscience.nsw.gov.au/miners-and- explorers/geoscience-information/geological-survey-of-nsw</li> </ul> </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>	Refer to website information at the above address.
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>	The prospectivity maps reported in the ASX release were generated by the NSWGS, which is a predictive science that requires in-depth knowledge of how deposits form, and applying statistical modelling using high quality geoscientific data. The GSNSW has generated predictive GIS models for each significant mineral system in all NSW basement provinces. The key output is a Mineral Potential Data Package for each province (Ford and others 2018) which has been recently been made publicly available through the Minview portal. The Zone 54 - Curnamona Province and Delamerian-Thomson Orogen Mineral Potential Data Package represents the results of a mineral potential study of the Curnamona Province and Delamerian-Thomson Orogens in zone 54 in NSW (refer Figure A1 in text).
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>Pre-competitive datasets have been created and those held by GSNSW have been analysed using weights of evidence spatial modelling techniques to map the potential for Broken Hill type Pb-Zn-Ag and iron- oxide copper–gold mineral systems in the Curnamona Province and orogenic Au and volcanic-associated massive sulfide mineral systems in the Delamerian–Thomson Orogen of the Koonenberry Belt.</li> <li>The Data Package contains GIS files, study area, predictive maps, and mineral potential maps for each model, a spatial data table that records the methods, processes and spatial statistics for the maps created for each model and a summary report.</li> <li>Mineral deposit models are used to define modelling parameters applied in the analysis. The input variables include a complete array of data relating to ore formation, arranged into temporal stages of the mineral system process - including metal source, fluid source and pathways, migration to trap and deposit preservation.</li> <li>The common types of data used by GSNSW for the modelling are:         <ul> <li>Mineral occurrence data, including deposit locations, alteration descriptions, attributed deposit types, and vein structural data</li> <li>Basement geological data, including rock units and structural data</li> <li>Fault data, attributed with age, type and order</li> </ul> </li> </ul>

		<ul> <li>Geophysical data layers, including magnetics, gravity and radiometrics</li> <li>Geochemical data, including drillhole, stream sediment and surface samples</li> <li>Igneous metallogenic fertility for granites and volcanic rocks</li> <li>Distribution of chemically reactive rocks (for example, black shales and carbonate units)</li> <li>Regional metamorphic data</li> <li>Field observations</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>Previously, rock chip samples were taken opportunistically where outcropping Pl2 units (Himalaya Formation) were observed within the tenements.</li> <li>These sample locations and results, whilst being selected based on the GSNSW mapping targeting the Himalaya Formation, were not available to the GSNSW study.</li> </ul>
Sample security	• The measures taken to ensure sample security.	Not applicable as no samples taken.
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>No reviews or audits have been conducted of the mineral potential maps, but they will be validated by ground truthing (field work involving mapping and sampling)</li> </ul>

# Section 2 Reporting of Exploration Results (Criteria listed in the preceding section applies below)

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>Castillo Copper ("CCZ") holds:</li> <li>EL8599 consisting of 20 units (approx. 60 km<sup>2</sup>). The tenure has been formally granted for the term of 36 months until 20 June 2020 and a renewal has been lodged.</li> <li>EL 8572 consisting of 19 units (approx. 57km<sup>2</sup>). The tenure has been formally granted for the term of 36 months until 23 May 2020.</li> <li>The location of the CCZ project tenures are shown in Figure A1 below:</li> </ul> Figure A1: Location of EL8599 and EL8572 of Broken Hill Figure 41: Location of EL8599 and EL8572 of Broken Hill Figure 41: Location of EL8599 and EL8572 of Broken Hill Figure 41: Location of EL8599 and EL8572 of Broken Hill Figure 5000000 Figure 41: Location of EL8599 and EL8572 of Broken Hill Figure 41: Location of EL8599 and EL8572 of Broken Hill Figure 5000000 Figure 41: Location of EL8599 and EL8572 of Broken Hill Figure 5000000 Figure 41: Location of EL8599 and EL8572 of Broken Hill Figure 41: Location of EL8599 and EL8572 of Broken Hill Figure 5000000 Figure 41: Location of EL8599 and EL8572 of Broken Hill Figure 5000000 Figure 50000000 Figure 5000000 Figure 50000000 Figure 50000000 Figure 50000000 Figure 50000000 Figure 500000000 Figure 500000000 Figure 500000000 Figure 50000000000 Figure 5000000000 Figure 5000000000000000000000000000000000000
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Detail on Previous Investigations have been reported in Table 1 in CCZ     ASX release on the 2nd May 2018
Geology	• Deposit type, geological setting and style of mineralisation.	<ul> <li>Four significant mineral systems were analysed in the Zone 54 mineral potential study. These were:         <ul> <li>Broken Hill type Pb-Zn-Ag</li> <li>Iron-oxide copper–gold in the Curnamona Province.</li> <li>Orogenic Au, and</li> <li>Volcanic-associated massive sulfide in the Delamerian– Thomson Orogen of the Koonenberry Belt.</li> </ul> </li> <li>Spatial modelling experts Kenex Pty Ltd and GSNSW's Mineral Systems section used a weights-of evidence approach, creating up to 132</li> </ul>

		<ul> <li>predictive maps for each mineral system, and included up to 14 maps for the final models.</li> <li>Eleven predictive maps were used to create this mineral potential map resulting in 8.85% of the study area likely to be prospective, with 2.3% of the area highly prospective. The GSNSW noted that the Pinnacles lies outside the highly prospective area.</li> <li>The GIS data package has been used to: <ul> <li>Assess the quality of the data against exploration models being used</li> <li>Derive anomalous threshold levels for geochemical data</li> <li>Analyse, attribute, and create derivative data from geological and geophysical data</li> <li>Create and test predictive maps that represent different components of the mineral system</li> <li>Develop mineral potential maps that map the geological potential of the NSW Zone 54 area for BHT, IOCG, orogenic Au, and VMS mineralisation</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> </ul> </li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar <ul> <li>dip and azimuth of the hole</li> </ul> </li> <li>down hole length and interception depth o hole length. <ul> <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> </ul></li></ul>	No new drilling completed and reported in this announcement.
Data aggregation methods	<ul> <li>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.</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</li> </ul>	<ul> <li>No new drilling completed and reported in this announcement</li> <li>Historical drilling information is available to the public via the NSW's Department of Primary Industries Division of Resources &amp; Energy platforms of DIGS and MinView</li> </ul>

	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.	
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>The exact structural controls relationship between the surface sample anomalies to any subsurface anomalous intersections is not yet completely determined, what is clear that mineralisation is associated with the Himalaya Formation (Pl2 unit) and the weathered sediments that are derived from the Himalaya Formation.</li> <li>Rock chip were collected at surface from areas interpreted to overlie the Himalaya Formation (pl2 unit) as shown in Figure A2, below:</li> <li>Tigure A2: Location of EL8599 and EL8572 Cobalt Target Areas</li> <li>Imalaya Formation (pl2 unit) as shown in Figure A2, below:</li> </ul>
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.	<ul> <li>Figure A3, below, shown below outline current work (proposed drilling program), that will undergo review after adding the NSWGS prospectivity analysis.</li> <li>Figure A3: Location of EL8599 and EL8572 Initial Target Areas</li> </ul>

Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or witths should be practiced to avoid micloading	• The mineral Prospectivity maps generated by the NSWGS use all available data as outlined in the following:
	grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	<ul> <li>(a) Groves I. &amp; Plimer I. 2017. Broken Hill Pb-Zn-Ag deposit. pp 641–646 In: Phillips N. ed. Australian Ore Deposits. Australasian Institute of Mining and Metallurgy Monograph 32, 879 pp.</li> <li>b) Fitzherbert J.A., 2018, A Mineral System Model for Broken Hill Type Pb-Zn-Ag mineralisation In New South Wales, Geological Survey of New South Wales, May 2018, GS2018/0400</li> <li>c) Ford A., Partington G., Peters K., Greenfield J., Blevin P., Downes P., and Fitzherbert J., 2018, Zone 54 - Curnamona Province and Delamerian-Thomson Orogen Mineral Potential Data Package, [Digital Dataset]. Geological Survey of New South Wales, Interview of New South Wales, Martand.</li> </ul>
Other substantive exploration data	• 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.	• Other substantive work, associated data and its manipulation is discussed in the three (3) reports listed above.

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.	<ul> <li>Broken Hill Project is comprised of two (2) tenures, EL 8572 Peak Hill and EL 8599 Black Hill East. The project is located 16km south-west of the city of Broken Hill. The project occurs in an area known to have significar multi-element mineralization including cobalt in the southern Curnamona Craton, with large cobalt resources defined at the Pyrite Hill and Thackaringa deposits immediately to the south.</li> <li>A preliminary report by the CCZ Geology team in July 2017 highlighted anomalous zones for cobalt but since then additional data ha been released into the open-file domain that has allowed further insight into the geology and mineral potential of the area.</li> <li>Recent investigations by Castillo Coopper in the project area during the period November 2017 to August 2018 focused on identifying anomalies from four (4) main studies; airborne and ground geophysics, surface geochemical contouring, exanimation of historical drillhole assay and evaluating the results of rock chip and soil sampling from the December 2017 and July 2018 fieldwork.</li> <li>Whilst prospective for a range of base metals and rare-earth elements the project area is most prospective for: <ul> <li>silver/zinc/lead.</li> <li>iron/cobalt.</li> <li>copper.</li> <li>gold.</li> </ul> </li> <li>A reconnaissance soil and rock chip sampling program were completed in December 2017 and was notable for highlighting high copper, lead, and zinc values in out cropping gabbro and pegmatite. Further rock chip sampling in July-August 2018 highlighted anomalous Cobalt along the breciated boundary of the Cues and Himalaya Formations.</li> <li>Prospective zones for the top three (3) element groups have been documented throughout the report. A total of eleven (11) drillhole sites have been proposed to test the anomalous areas identified. Cobalt occurrences have been given focus and are mostly not related to other mineralisation but contained within cobaltiferous pyrite within iron-rich schists and gneisses. They are structurally-controlled, and</li></ul>
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These contours highlight a series of north-east to southwest trending zones of higher and possibly anomalous mineralisation, all offset to each other.

• Only gold shows no trend and the results appear entirely random, although many values are <1 g/t. When combined with known drillhole intersections of zinc, silver, lead, and copper, this series of trends have been amplified from which two (2) drillhole sites have been proposed.

• The exploratory work also uncovered regional magnetic imagery that shows numerous highly anomalous zones that could be prospective for mineralisation trending southwest across the project area. Two (2) holes are planned to intersect this feature looking for anomalous silver and zinc. Lastly, historical records show that many prospecting applications were lodged in the 1950's on outcropping davidite (rare earth oxide: (La, Ce, Ca) (Y, U) (Ti, Fe3+)<sub>20</sub> O<sub>38</sub>) occurrences. Three (3) holes are planned to follow the trends of this outcrop.

- Several exploration objectives have been devised, being:
- A more detailed study of historical drillholes should be conducted to determine if enough data exists to estimate a JORC resource.
- o Historical explorers have also conducted airborne and ground gravity, magnetic, EM, and IP resistivity surveys over parts of the tenure area but this is yet to be collated or reprocessed.
- The surface sampling database only consists of Excel spreadsheets at this stage, split per element and its construction is in progress. As evaluations continue, the data should be migrated to a more appropriate relational database.
- o It is recommended that any drilling program initially concentrate on the three main mineral groupings identified as follows:
- Pb/Zn/Ag associated with magnetic anomalies across the centre of the project.
- o Co, potentially associated with shearing at the boundary of the Cues and Himalaya Formations across the centre of the project area.
- Ce and other rare earths associated with davidite occurrences in the south western corner of EL 8572.
- o Over 3 years It is proposed to drill at a total of fourteen (14) sites, 8 of which are in EL8599, as listed in Figure A4.

Figure A4: Location of REE Drilling program Proposed

