

# MARCH 2023 QUARTERLY **ACTIVITIES REPORT**



# **Highlights**

- EAST ZONE, BHA PROJECT, NEW SOUTH WALES
  - Diamond core assays from the Tors Tank Prospect boosts confidence in the shallow, clay-hosted, rare-earth element (REE) discovery, with the best intercept:
    - 13m @ 1,550ppm Total Rare Earth Oxides (TREO) from 5m<sup>1</sup>
- NWQ COPPER PROJECT, QUEENSLAND
  - Geology team will be undertaking site visits to several prospects including Big One, Arya and Valparaisa – during 1H 2023, to identify new drill targets<sup>1</sup>
  - Entech Mining to undertake a pit optimisation and mine design study for the Big **One Deposit<sup>1</sup>**
- CANGAI COPPER MINE, NEW SOUTH WALES
  - The Board approved plans to update and enhance the confidence in the 2017 0 inferred JORC MRE<sup>1</sup>



### **ACTIVITIES REPORT**

**Castillo Copper Limited's** ("**CCZ**") Board is pleased to present shareholders its latest quarterly report for the period 1 January to 31 March 2023.

An overview of key events follows:

### **DEVELOPMENT WORK**

CCZ has four properties comprising the NWQ Copper Project in Mt Isa's copper-belt, the BHA Project near Broken Hill's world class silver-zinc-lead deposit in NSW, the historic Cangai Copper Mine and four assets across Zambia's copper-belt.

### East Zone, BHA Project, NSW

On 15 February 2023, CCZ announced the assay results for diamond core from TT\_005DD (Figure 1) – undertaken at the Tors Tank Prospect which significantly boosts confidence in the shallow, clay-hosted, rare-earth element (REE) discovery, with the best intercept:

> 13m @ 1,550ppm Total Rare Earth Oxides (TREO) from 5m<sup>1</sup>

#### FIGURE 1: TORS TANK DIAMOND CORE FROM 5.3-11.8M (TT\_OO5DD)



Source: CCZ geology team

Notably, high value Magnetic REO (Nd+Pr+Dy+Tb) represented an exceptional 38.9% of the TREO grade vs 25% peer average<sup>1</sup>.

Re-assays of 4m composite samples at Tors Tank & Fence Gossan to 1m provided greater clarity on the underlying geology, whilst delivering further evidence of an extensive, shallow REE mineralisation system – the best intercepts comprise:

- > 17m @ 1,605ppm TREO from 2m and 1m @ 3,236 TREO from 19m (FG\_003RC)
- > 10m @ 1,013ppm TREO from 49m (FG\_001RC)
- > 6m @ 1,480ppm TREO from 7m (FG\_004RC)
- 5m @ 1,598ppm TREO from 14m (TT\_002RC)
- > 4m @ 1,342ppm TREO from 28m (FG\_004RC)
- 2m @ 3,491ppm TREO from 15m (TT\_003RC)<sup>1</sup>

Assays for circa 70% of the recent hand auger surface sampling campaign across Fence Gossan delineated a sizeable 4.5km<sup>2</sup> anomalous area for REE mineralisation. Notably, a preliminary interpretation suggests there are several more prime targets to test-drill that could potentially extend known mineralisation between the Fence Gossan and Tors Tank Prospects<sup>1</sup>.

On 28 February, CCZ announced preliminary metallurgical test-work on a 20m composite sample from the Fence Gossan Prospect (FG\_003RC) delivered encouraging results, with clays – subjected to froth flotation – obtaining up to 2-3 times REE enrichment from the head grade at up to 70% recovery. These findings confirm REEs can be readily separated from clay within the East Zone discovery area.

To acquire a deeper understanding of the potential to extract REE-mineralisation from clays in the East Zone discovery area, the Board has approved the appointment of a specialist consultancy to conduct an in-depth metallurgy test-work program. Once completed and interpreted, the results from this program will be key to securing interest from potential off-take partners and providing a path to market.

### NWQ Copper Project, Queensland

On 23 January 2023, CCZ announced that following a review of prospects at the NWQ Copper Project (Mt Isa copper-belt), CCZ's geology team will be undertaking site visits to several prospects – including Big One, Arya and Valparaisa – during 1H 2023, to identify new drill targets<sup>1</sup>.

The initial focus will be on the Big One, which has an inferred MRE of 2.1Mt @ 1.1% Cu for 21,886t copper metal post-two drilling campaigns across 2020-21. Moreover, factoring in a large conductor north of the line of lode, plus reconciling available geophysics and geochemical data, CCZ's geological consultant has set an Exploration Target that ranges from 2-6Mt @ 0.6-1.0% Cu for 12-60kt copper metal<sup>1</sup>.

**Cautionary Statement:** It should be noted that the Exploration Target tonnage range quoted above are conceptual in nature and there has been insufficient exploration to define a copper resource. Although a preliminary analysis was undertaken, insufficient data exists to confidently correlate mineralised horizons within the Exploration Target area. It is uncertain whether further exploration may lead to the reporting of a JORC-standard resource, however, there is some evidence to support the current exploration tonnage calculations, and the sufficient mineralised thicknesses interpreted from historical drilling to warrant further investigation in some areas.

The Valparaisa Prospect comprises copper mineralisation across two horizons over a 6km strike event, with the interaction of two intersecting faults suggesting a structurally controlled copper system that can potentially be drill-tested<sup>1</sup>.

At the Arya Prospect, there is a significant magnetic anomaly, south of a known graphite system (test drilled in late 2021), that shows potential to be a primary source of copper mineralisation<sup>1</sup>.

On 20 February 2023, CCZ's Board approved plans to assess optimising the Big One Deposit via implementing the following:

- Commissioning an independent engineering contractor to conduct a pit optimisation study on the viability of commencing copper mining operations, utilising prospective third-party processors and effective path to market.
- Re-formulating optimal plans for a third drilling campaign and companion geophysical surveys to extend known mineralisation beyond the line of lode.

To recap, the Big One Deposit has an inferred MRE at 2.1Mt @ 1.1% Cu for 21,886t<sup>1</sup> copper metal – with best intercepts comprising:

40m @ 1.64% Cu from surface incl: 11m @ 4.40% Cu from 24m, 5m @ 7.34% Cu from 28m & 1m @ 16.65% Cu from 29m (303RC)

44m @ 1.19% Cu from surface incl: 14m @ 3.55% Cu from 27m, 3m @ 10.88% Cu from 37m & 1m @ 12.6% Cu from 37m (301RC)

34m @ 1.51% Cu from surface incl: 21m @ 2.25% Cu from surface, 12m @ 3.44% Cu from 3m, 6m @ 4.79% Cu from 3m and 1m @ 9.4% Cu from 9m  $(B0017)^1$ 

Post upcoming site visits to several prospects – including Arya, Valparaisa, Boomerang and Josephine – the Board will rank the exploration potential then present the opportunity to prospective development partners in the Mt Isa region.

On 28 March 2023, CCZ appointed Entech Mining to undertake a pit optimisation and mine design study for the Big One Deposit. If the findings are positive, then next steps comprise determining the optimal path to market and effective use of third-party processors.

Concurrently, work can focus on capitalising on Big One Deposit's exploration potential via drill-testing

known targets north of the line of lode.

### **Cangai Copper Mine**

On 9 March 2023, following a recent site visit to Cangai Copper Mine (one of Australia's highest grading historic copper mines) by geologist and director David Drakeley, the Board approved plans to update and enhance the confidence in the 2017 inferred JORC MRE – 107,589t contained copper metal (3.2Mt @ 3.35%)<sup>1</sup>.

Considerable drilling work post-2017, which includes 34 RC drill-holes for a total of circa 5,000m will be factored into the updated geological model – the best intercepts from these campaigns comprised:

11m @ 5.94% Cu; 2.45% Zn & 19.13g/t Ag from 40m including:

3m @ 8.1% Cu; 2.84% Zn & 23.42g/t Ag from 41m 1m @ 10.25% Cu; 1.68% Zn & 32.50g/t Ag from 48m 1m @ 7.53% Cu; 6.04% Zn & 30.60g/t Ag from 50m (CC0023R)<sup>1</sup>

5m @ 1.56% Cu, 4.43g/t Ag & 0.4% Zn from 92m including:

3m @ 2.22% Cu, 6.38g/t Ag & 0.60% Zn (CC004RC)<sup>1</sup>

4.39m @ 5.06% Cu, 2.56% Zn and 20.1 g/t Ag from 49.9m (CC0036D)1

Furthermore, the model will factor in bulk sampling done on several historic stockpiles (which should support a higher confidence Indicated MRE), drone topographic survey and re-positioned mine workings that are accurately georeferenced.

Pleasingly, the Cangai Copper Mine still delivers material exploration potential as six down-hole electromagnetic surveys identified two untested off-hole bedrock conductors interpreted to be open at depth<sup>1</sup>.

### Zambia Copper Projects

Other than tenement management activities, no further work was undertaken on the Zambia assets during the review period.

### CORPORATE

- Board changes: On 30 January 2023, CCZ announced two new additions to the Board, as Non-Executive Directors<sup>1</sup> –
  - Mr David Drakeley BSc (Hons), an experienced field geologist who has worked as point on CCZ's drilling campaigns in Broken Hill and Queensland, will oversee designing and implementing all future exploratory work across the group's portfolio.
  - Mr Jack Sedgwick BEng BCom MBA (Distinction) GAICD, a hands-on corporate strategist / business improvement specialist with blue-chip experience across the mining / energy sectors (including working on Rio Tinto's iron ore expansion projects), will oversee portfolio optimisation and the group's finances.

### POST PERIOD EVENT

MREO focused metallurgical test-work underway by ANSTO: On 13 April 2023, CCZ appointed specialist consultant ANSTO to undertake comprehensive metallurgical test-work on six samples from Fence Gossan, Reefs and Tors Tanks Prospects to understand the potential to extract REE from shallow clay zones. The scope of work will focus on characterising REE leachability from the six samples which comprise fresh pegmatite to highly weathered clay, especially with Magnetic Rare Earth Oxide (MREO) grades ranging from 362-603ppm.

Note, this is an important step towards advancing the viability of the BHA Project's East Zone REE potential and securing interest from prospective development partners, especially given the extent of high-value MREO (Nd+Pr+Dy+Tb) within the system.

### PAYMENTS TO, OR TO AN ASSOCIATE OF, A RELATED PARTY OF THE ENTITY DURING THE QUARTER

\$119,000 was paid to related parties of CCZ relating to executive director salary and non-executive director fees.

	Consulting fees	Rates and mines departments fees
Cangai	\$74,000	-
Broken Hill Alliance	\$145,000	-
Mt Isa	\$82,000	\$12,000
Zambia	\$17,000	\$1,000
Total	\$318,000	\$13,000

#### SUMMARY OF THE EXPLORATION EXPENDITURE INCURRED DURING THE QUARTER

#### The Board of Castillo Copper Limited authorised the release of this announcement to the ASX.

#### **Dr Dennis Jensen**

#### **Managing Director**

1) Note - All information referenced is from CCZ ASX Releases, as dated in text, from 1 January 2022 to 28 April 2022 inclusive

#### **Competent Person's Statements**

The information in this report that relates to Exploration Results for "BHA Project" is based on information compiled or reviewed by Mr Mark Biggs. Mr Biggs is a director of ROM Resources, a company which is a shareholder of Castillo Copper Limited. ROM Resources provides ad hoc geological consultancy services 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. Further, Mr Biggs consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The information in this report that relates to Exploration Results and Mineral Resource Estimates for "Cangai Copper Mine" is based on information compiled or reviewed by Mr Mark Biggs. Mr Biggs is a director of ROM Resources, a company which is a shareholder of Castillo Copper Limited. ROM Resources provides ad hoc geological consultancy services 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 information in this announcement that relates to exploration results is based on and fairly represents information reviewed or compiled by Mr Matt Bull, a Competent Person who is a member of the Australian Institute of Geoscientists. Mr Bull is a Consultant of Castillo Copper Limited. Mr Bull has sufficient experience that is relevant to the styles of mineralisation and types 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 Bull has provided his prior written consent to the inclusion in this announcement of the matters based on information in the form and context in which it appears.



The information in this report that relates to Exploration Results for "NWQ Copper Project" is based on information compiled or reviewed by Mr Mark Biggs. Mr Biggs is a director of ROM Resources, a company which is a shareholder of Castillo Copper Limited. ROM Resources provides ad hoc geological consultancy services 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. Further, Mr Biggs consents to the inclusion in this report of the matters based on information in the form and context in which it appears.



# 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 its core projects:

- A large footprint in the 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.
- Four high-quality prospective assets across Zambia's copper-belt which is the second largest copper producer in Africa.
- A large tenure footprint proximal to Broken Hill's world-class deposit that is prospective for cobalt-zinc-silver-leadcopper-gold and platinoids.
- 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."

### **Directors**

Gerrard Hall

Dr Dennis Jensen

Jack Sedgwick

**David Drakeley** 

### **ASX/LSE Symbol**

CCZ

## Contact

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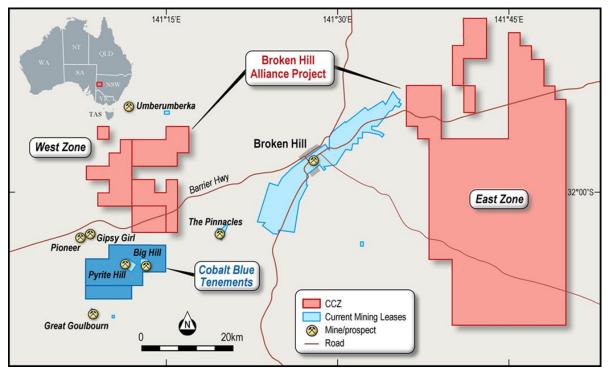
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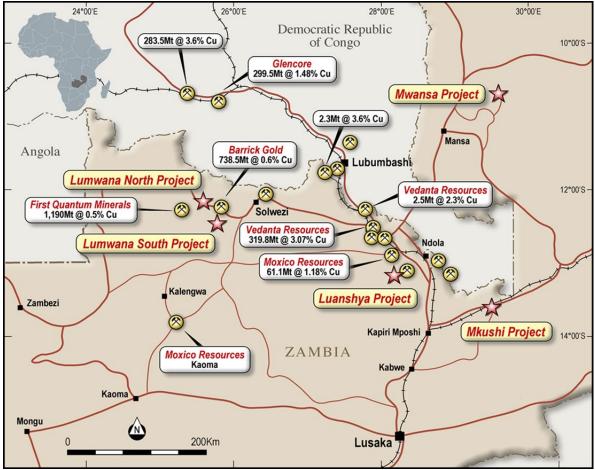
### **APPENDIX A: KEY PROJECTS**

#### FIGURE A1: WEST AND EAST ZONE - BHA PROJECT, BROKEN HILL REGION



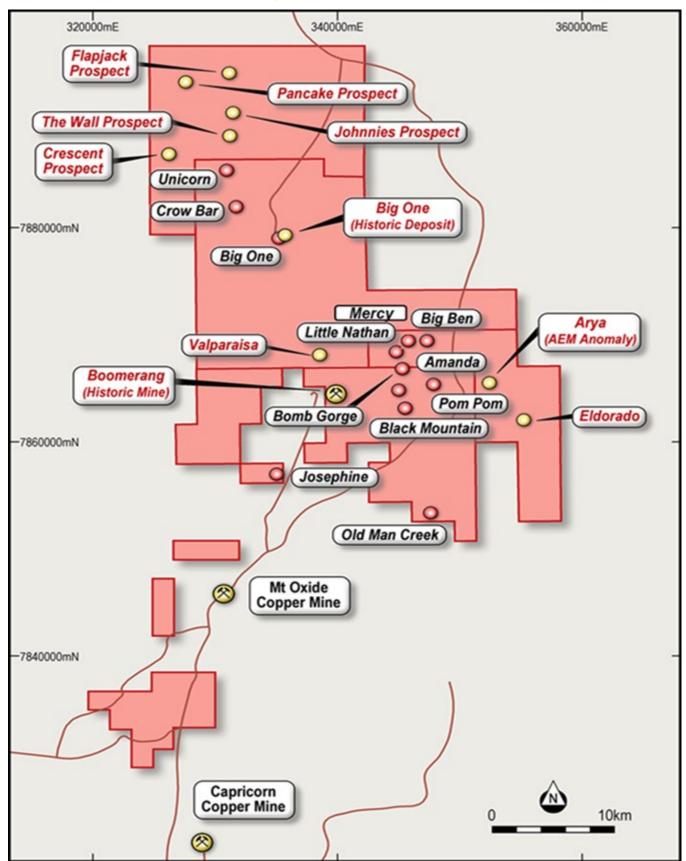
Source: CCZ geology team





Source: CCZ geology team

#### FIGURE A3: NWQ COPPER PROJECT, MT ISA REGION



Source: CCZ geology team

#### APPENDIX B: INTEREST IN MINING TENEMENTS HELD

JACKADERRY (CANGAI)			
New England Orogen in NSW			
Tenement ID	Ownership at start of Quarter	Ownership at end of Quarter	Change during the Quarter
EL8635	100%	100%	-
EL8625	100%	100%	-
EL8601	100%	100%	-

BROKEN HILL			
located within a 20km radius of Broken Hill, NSW			
Tenement ID	Ownership at start of Quarter	Ownership at end of Quarter	Change during the Quarter
EL8599	100%	100%	-
EL8572	100%	100%	-
EL 8434	100%	100%	-
EL 8435	100%	100%	-

MT OXIDE			
Mt Isa region, northwest Queensland			
Tenement ID	Ownership at start of Quarter	Ownership at end of Quarter	Change during the Quarter
EPM 26513	100%	100%	-
EPM 26525	100%	100%	-
EPM 26574	100%	100%	-
EPM 26462	100%	100%	-
EPM 27440	100%	100%	-

		ZAMBIA		
Project	Tenement ID	Ownership at start of	Ownership at end of	Change during the Quarter
		Quarter	Quarter	
Lumwana North	23914-HQ-SEL	100%	100%	-
Lumwana South	23913-HQ-SEL	100%	100%	-
Mkushi	24659-HQ-LEL	100%	100%	-
Luanshya *	22448-HQ-LEL	-	-	-
Luanshya	25195-HQ-LEL	55%	55%	-
Luanshya	25273-HQ-LEL	55%	55%	-
Mwansa	25261-HQ-LEL	100%	100%	-

\* CCZ can earn up to 80% by meeting previously disclosed milestones

