

# QUARTERLY REPORT FOR THE PERIOD ENDING MARCH 31 2023

### **HIGHLIGHTS**

- Portable XRF (pXRF) data from seven-hole (1,734m) RC drilling program confirmed VMS-style Zn-Pb-Ag discovery at the Minjina base metals prospect within the Company's 100%-owned Yamarna Project
- Minjina mineralisation is unconstrained within a >1km x 750m zone of elevated Zn including a highgrade zone in MIRC003 drilled ~80m east of historic hole 17VRC004 (2.52% Zn + Pb & 3.56g/t Ag) of:
  - o 7m @ 3.20% Zn, 0.82%Pb (4.02% Zn + Pb) & 11.84 g/t Ag from 73m including
  - o 2m @ 5.0% Zn, 1.4% Pb (6.4% Zn + Pb) & 18.83g/t Ag from 76m in MIRC003
- MIRC010 and MIRC014, drilled downdip of MIRC003, intersected wider zones of Zn-Pb-Ag mineralisation with Cu grades increasing down dip, and which remains open
- Holes MIRC012 and 013 intersected wide zones of Zn-Pb mineralisation as well as Cu, extending the known Zn and Pb zone 80m to the south of MIRC003
- MIRC013 includes a zone of massive sulphides with elevated Cu and Ni coincident with the Zn mineralisation in MIRC013, the first zone of coincident Cu-Zn mineralisation associated with massive sulphides intersected in the entire Yamarna Project
- Cu grades increasing down section interpreted to vector towards more proximal parts of the mineralised system
- Laboratory assay results from the Minjina RC program are expected early May 2023
- Heritage survey over high priority base metals (Cu-Ni-PGE) targets on Cosmo's 60km<sup>2</sup> Narragene Project, opens the way for on-ground exploration on an 8km extension of the Mt Venn greenstone belt directly north of Minjina
- Reconnaissance MLEM at Narragene has defined a drill-ready high priority conductor (NA1), which will be tested with a shallow (160m) hole after the pad is heritage cleared
- A copper-nickel-cobalt sulphide JORC Code (2012) Exploration Target was announced at the Mt Venn Project supporting the Company's strategy to target Mt Venn 'satellites' with the potential to increase the size and/or improve grade of near-surface mineralisation at Yamarna

#### **Cosmo Metals**

Level 3, 33 Ord Street West Perth WA 6005 cosmometals.com.au Telephone: +61 (8) 6400 5301 Email: <u>admin@cosmometals.com.au</u> ASX: CMO Shares on Issue: 50.5M Market Cap: \$6.8M (at \$0.135) Cash: \$0.85M (31 March 2023)



Cosmo Metals Ltd ("**Cosmo**" or "**the Company**") exploration programs during the quarter focussed on the newly discovered Minjina Zn-Pb-Ag prospect as well as the advanced Mt Venn Cu-Ni-Co project where the Company announced a maiden Exploration Target.

Regional target generation is ongoing, including review of the recently granted Narragene tenement. Narragene features a further nine kilometres of the Mt Venn mineralised horizon, with several high priority targets ready for drill testing, and with a recently completed heritage survey clearing the way for on-ground exploration.

At the end of the March quarter, the Company had a cash balance of \$0.85 million.

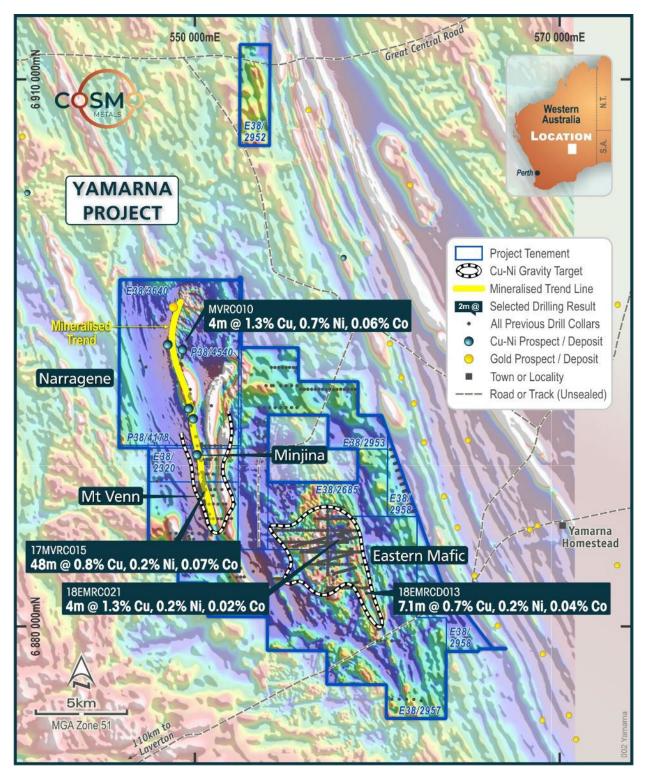


*Figure 1:* Cosmo Metals' Yamarna Region Projects, Eastern Goldfields Western Australia.



### YAMARNA PROJECT (CMO 100%)

Cosmo Metals' Yamarna Project, ~130km east of Laverton in Western Australia, includes the Mt Venn, Minjina and Eastern Mafic prospects. With the granting of the Narragene tenement E38/3640 Yamarna now comprises nine granted exploration licences with a total area of 370km<sup>2</sup> (*refer Figure 2*).



**Figure 2:** Cosmo Metals' Yamarna Project, Eastern Goldfields Western Australia, prospects and selected historical intersections on regional airborne magnetic imagery (RTP TMI)

# ASX RELEASE | QUARTERLY REPORT FOR THE PERIOD ENDING MARCH 31 2023



During the quarter the Company's on-ground exploration programs were focussed on the *Minjina Zn-Pb-Ag* discovery, ~1km north of Mt Venn. Minjina is significantly different to previous sulphide intersections in the area, with red-orange sphalerite (zinc sulphide) intergrown with subordinate galena (lead sulphide) and chalcopyrite (Cu-sulphide). This contrasts with the pyrrhotite-chalcopyrite hosted mineralisation at Mt Venn, supporting the interpretation of a new mineralisation style in the Yamarna project.

The *Mt Venn Cu-Ni-Co* prospect has been the subject of several rounds of drilling and target generation studies by Cosmo since listing in early 2022, with the Company defining a continuous zone of Cu-Ni-Co mineralisation up to 2.5km in length to a maximum depth of 240m. This culminated in the announcement of an initial JORC-code compliant Exploration Target during the quarter, confirming the potential for a significant tonnage of near surface Cu-Ni-Co mineralisation at Mt Venn.

Mt Venn-style mineralisation has been defined and is sparsely tested for a further nine kilometres of strike to the north into the Company's **Narragene Project**, highlighting the potential for the discovery of largescale deposits. During the quarter the Company announced initial heritage work at Narragene has now cleared the project for on-ground exploration activities.

### Minjina (VMS - Zn-Pb-Ag)

The Minjina Prospect, ~1km north of Mt Venn, was first identified as a potential Volcanogenic Massive Sulphide (VMS) target from a review of historic hole 17MVRC004 which intersected:

- 12m @ 0.8% Zn, 0.16% Pb, 3.3g/t Ag from 48m which included
  - o 2m @ 2.13% Zn, 0.39% Pb 3.56g/t Ag from 58m

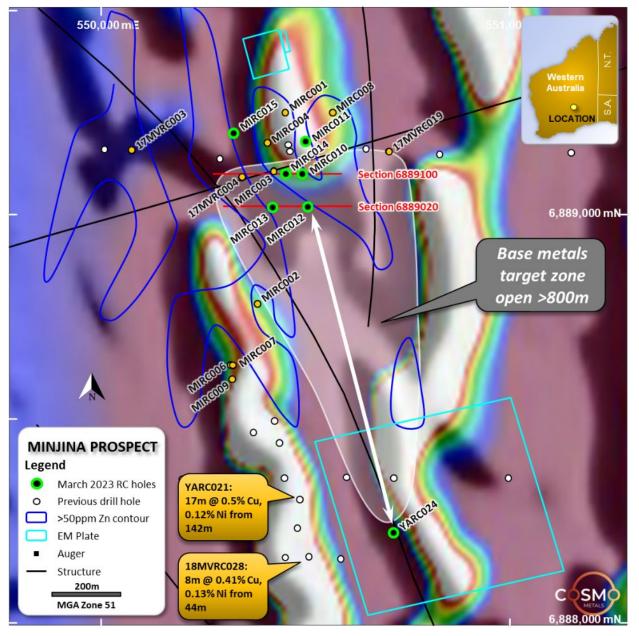
A follow up hole, MIRC003 drilled by the Company in late 2022, and collared 80m east of 17MVRC004, intersected significantly broader and higher-grade Zn-Pb-Ag mineralisation compared with 17MVRC004 including a higher-grade zone of:

- 7m @ 3.20% Zn, 0.82% Pb, 11.84 g/t Ag from 73m which included:
  - o 2m @ 5.0% Zn, 1.4% Pb, 18.83g/t Ag from 76m

Mineralisation in MIRC003 is open down dip and along strike with the above significant intersections contained within a broad zone of anomalous (>0.1%) Zn extending most of the entire length of the hole.

During the quarter the Company announced preliminary results from a seven-hole (1,734m) RC drilling program designed to test these open extensions of MIRC003 down dip and along strike with RC drill holes MIRC010, 012, 013, 014 and 015 (*refer Table 1 and Figures 1, 2 & 3*).





**Figure 3:** Cosmo Metals' Minjina Prospect, Eastern Goldfields Western Australia. Location of recently completed and historical drill holes on regional airborne magnetic imagery (RTP TMI).

Four of the holes (MIRC010, 012, 013 and 014) intersected multiple wide zones of Zn-Pb mineralisation, successfully extending the mineralised zone more than 80m to the east and 80m to the south of MIRC003 where it remains open in both directions. These wider  $pXRF^*$  intersections include (*refer Table 1 and Figures 1, 2 & 3*):

- *MIRC010* 
  - o 39m @ >0.2% Zn from 123m
  - o 51m @ >0.2% Zn from 183m
- MIRC012
  - o 10m @ >0.2% Zn from 220m



- *MIRC013* 
  - 8m @ >0.2% Zn and >0.2% Cu from 207m within a broad zone of Zn mineralisation of 61m
    @ >0.1% Zn from 192m
- MIRC014
  - 54m @ >0.2% Zn from 6m
  - o 120m @ >0.2% Zn from 128m

### \* pXRF Cautionary Statement

Portable XRF (pXRF) data is used as an exploration tool and a guide only and should never be considered as a proxy or substitute for laboratory analysis. pXRF measurements recorded are for a single spot only and may not be representative of the entire interval being measured. Cosmo will update shareholders when laboratory analyses become available.

The consistent presence of mineralisation between several adjacent holes shows that the individual intersections form part of a large, coherent 1km x 750m mineralised system.

A fifth hole (MIRC015) was drilled to the northwest of MIRC003 and intersected a package of unmineralised gabbros. MIRC015 was surveyed with DHEM to identify blind targets on this NW trend.

Mineralisation intersected in MIRC010, 012, 013 and 014 is generally hosted in mafic and intermediate rocks although it was noted that the zones of Zn-Pb identified from pXRF readings are visually indistinguishable from barren rock units and that mineralisation is not constrained to a specific lithological unit.

#### Increasing widths of Zn and elevated Cu down-dip of MIRC003 and massive sulphides in MIRC013

pXRF data also confirmed that in addition to the thick zones of Zn Pb-dominant mineralisation there was a clear trend of increasing Cu grades down dip and along strike of MIRC003 (*refer Figures 4 & 5*)

The Company is encouraged that this represents one possible vector to the focus of mineralisation in the Minjina system, with the Zn-dominant parts of the system considered more distal.

In addition to the increasing Cu grades noted above, MIRC013 (on a section 80m south of MIRC003), intersected massive sulphide mineralisation with elevated copper and zinc, the first time these elements have been detected in a massive sulphide zone in the Yamarna Project.

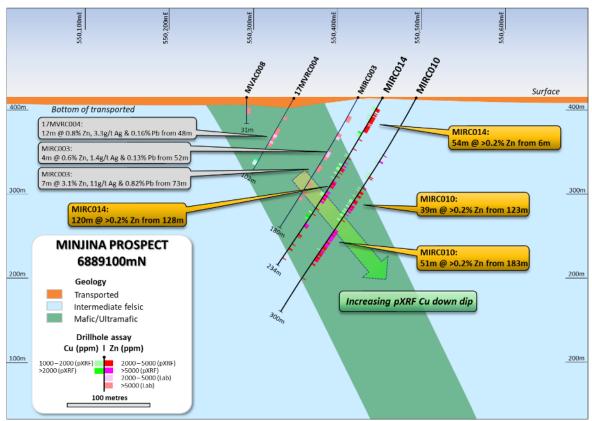
Unfortunately, MIRC012, drilled 80m east of MIRC013, was terminated short of this massive sulphide zone, which remains open (*refer Figure 5*). There is the potential for this hole to be re-entered and extended as part of a future drilling programme to test the interpreted position of the massive sulphide lens.

Despite issues with swelling clays the Company was able to survey MIRC012 for DHEM, and the results of this survey are expected to help define the extents of this (conductive) massive sulphide zone for follow up drill testing.

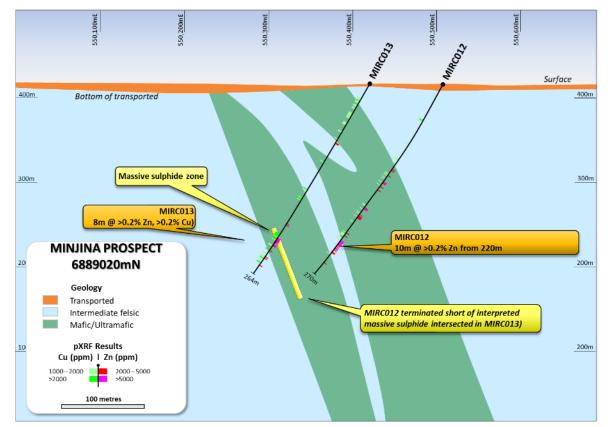
Cosmo's technical team are reviewing traditional pathfinder elements geochemistry and lithogeochemical modelling to refine the targeting, including interpretation of the DHEM data collected in MIRC012 and MIRC014 noting that holes MIRC010 and 013 were unable to be surveyed by DHEM due to swelling clays blocking the finished holes.







*Figure 4:* Section 6889100, MIRCO10 and MIRCO14 testing downdip of MIRCO03 with pXRF Cu grades increasing down dip with increasing thicknesses of pXRF Zn. MIRCO14 cased for DHEM.



*Figure 5:* Section 6889020, MIRC012 and MIRC013 testing 80m south of MIRC003 with zone of massive sulphides with elevated Cu and Zn remaining untested in MIRC012. MIRC0912 cased for DHEM.





MIRC013 with semi-massive and massive sulphide intervals highlighted



Massive sulphide chips in MIRC013 from 207-208m (pXRF 0.7% Cu and 0.2% Ni)

### Magmatic Copper (Cu) – Nickel (Ni) – Cobalt (Co)

The Company's systematic program of moving loop and downhole electromagnetic (FLEM & DHEM) surveying completed in January 2023 identified two strong, discrete, late-time EM conductors at Minjina, considered to represent Cu-Ni-Co targets analogous to the Company's Mt Venn deposit.

These conductors were tested by holes YARC024 and MIRC011 in the March quarter RC program.

8



- At Mt Venn, YARC024 targeted a large, moderate-strong (>3,000S) conductor identified from ground FLEM survey. Two main zones of copper mineralisation explained the modelled EM conductor (confirmed by DHEM) with several narrow zones of elevated (pXRF) Cu including:
  - 15m @ >0.1% Cu from 191m and
  - 12m @ >0.1% Cu from 216m

There was no significant Ni or Co mineralisation reported in the pXRF.

• At Minjina, MIRC011 targeted an off-hole conductor modelled from DHEM in MIRC003 and MIRC008. MIRC011 intersected a magnetic gabbro overlying a footwall of massive, unaltered dacite.

Weak copper (Cu) mineralisation was intersected from 52-72m which correlates well with the Cu mineralisation in MIRC004.

An intersection of disseminated pyrrhotite with no nickel and trace chalcopyrite is interpreted to be the source of the target conductor.

### Next Steps at Minjina

The Company is refining the geological model and modelling DHEM data to define targets for follow up drill testing to identify controls on the Minjina discovery, which will include laboratory assays.

Work programs planned over the coming months are expected to include:

- Modelling and interpretation of DHEM data from five holes (April)
- Surface soils and/or auger sampling (est. May)
- Laboratory assays (est. late April/early May)
- Drilling programs designed to test vectors to higher grade zinc-lead including copper-rich parts of the Minjina mineralised system (May-June).

### Mt Venn (Cu-Ni-Co)

The Mt Venn Cu-Ni-Co deposit is located 125 km east of the township of Laverton within granted exploration lease E38/2957 and associated exploration leases covering an area of approximately 370 km<sup>2</sup>. Copper (Cu)-nickel (Ni)-cobalt (Co) mineralisation at Mt Venn is hosted within mafic-ultramafic rocks of the Mt Venn Igneous Complex, and characterised by widespread, thick, and shallow mineralisation, with reverse circulation (RC) drilling by the Company since listing on the ASX extending the known mineralisation including<sup>1</sup> (*refer Figures 2 & 6*):

- 46m @ 0.80% Cu from 141m in 21MVRC001 including
  - 12m @ 1.26% Cu from 155m; and
  - **13m @ 1.06% Cu from 170m.**
- 22m @ 0.48% Cu, 0.16% Ni and 0.06% Co from 135m in YARC008 including

<sup>&</sup>lt;sup>1</sup> Refer CMO ASX Announcement 16/02/22 & 25/07/22 & Independent Geologist's Report in CMO's Prospectus 22/11/2021



- 1m @ 1.56% Cu, 0.15% Ni and 0.05% Co from 147m
- 18m @ 0.40% Cu from 202m in YARC013 including
  - 1m @ 1.05% Cu from 215m
- 23m @ 0.30% Cu from 147m in YARC006 including

### 1m @ 1.25% Cu from 154m

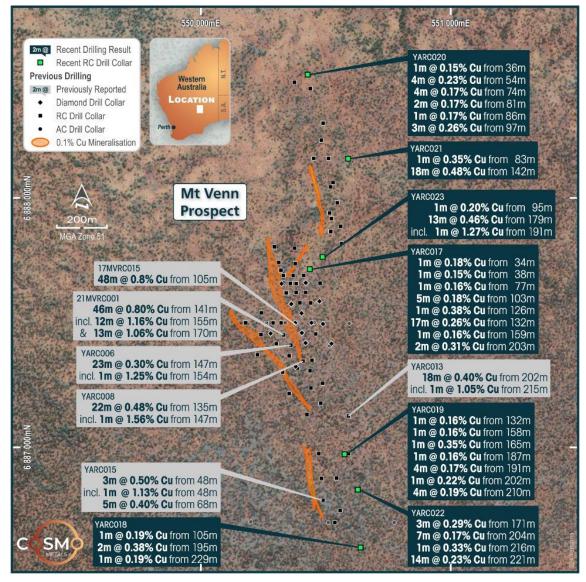
Mineralised intervals comprising disseminated to massive and semi-massive sulphides (pyrrhotite>>chalcopyrite) are hosted within a mafic (gabbro) to ultramafic (pyroxenite) unit adjacent to the contact with felsic-intermediate volcanics and volcaniclastics.

To support resource studies at Mt Venn a seven-hole (1,550m) RC program announced in the previous quarter intersected further shallow, thick Cu mineralisation, with all holes intersecting significant (>0.15%) copper mineralisation at targeted depths (*refer Figures 6,7 & 8*). These wider intersections included<sup>2</sup>:

Hole ID	Intersection	
YARC017	17m @ 0.26% Cu from 132m	
YARC021	18m @ 0.48% Cu, 0.12% Ni, 340ppm Co from 142m	
YARC022	14m @ 0.23% Cu from 221m	
	13m @ 0.46% Cu, 0.11% Ni from 179m <i>including</i>	
YARC023	1m @ 1.27% Cu from 191	

<sup>&</sup>lt;sup>2</sup> Refer CMO ASX Announcement 04/11/2022





<u>Figure 6:</u> Cosmo Metals' Mt Venn Project. August-September 2022 RC drilling including selected historical drill intersections on aerial photo background<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Refer Independent Geologist's Report in CMO's Prospectus 22/11/2021





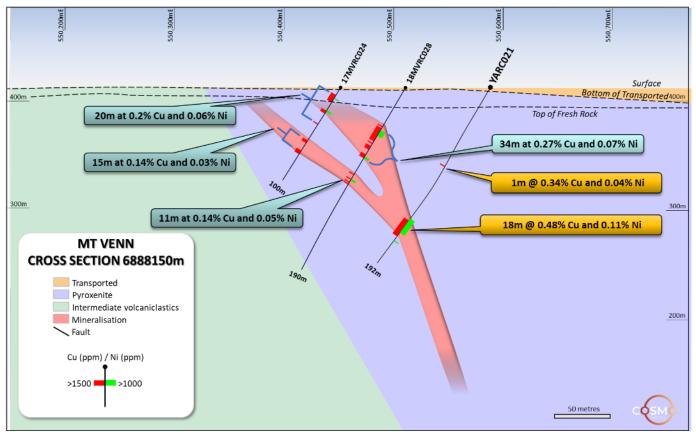


Figure 7: Cross section 688150mN (view looking north).

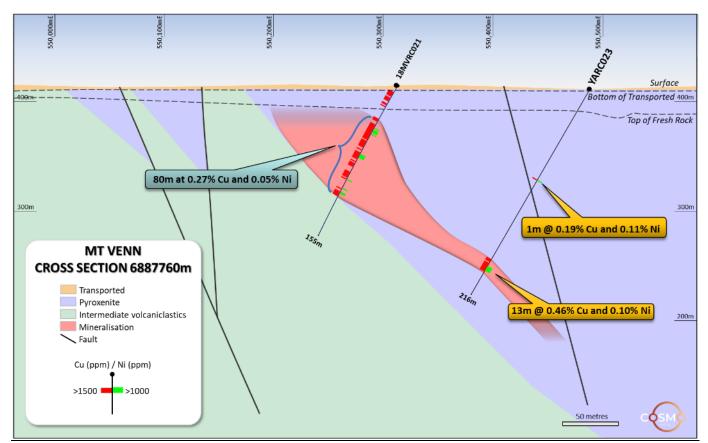


Figure 8: Cross section 6887760mN (view looking north).



### 2023 Mt Venn Cu-Ni-Co Exploration Target

The Mt Venn Exploration Target was prepared during January 2023 by leading global mining consulting group Entech and reported according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code) 2012 edition.

Tonnes and grade ranges for the Mt Venn Exploration Target range between (*refer Table 1 below*):

# 10.2 to 32.3 million tonnes of Copper (Cu)- Nickel (Ni) – Cobalt (Co) mineralisation with grades ranging from 0.55% CuEq to 0.63% CuEq.

The potential tonnes and grades of the Exploration Target are conceptual in nature and should not be considered as an estimate of a Mineral Resource. There has been insufficient exploration (and drilling density) to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The Exploration Target, being conceptual in nature, takes no account of geological complexity or metallurgical recovery factors.

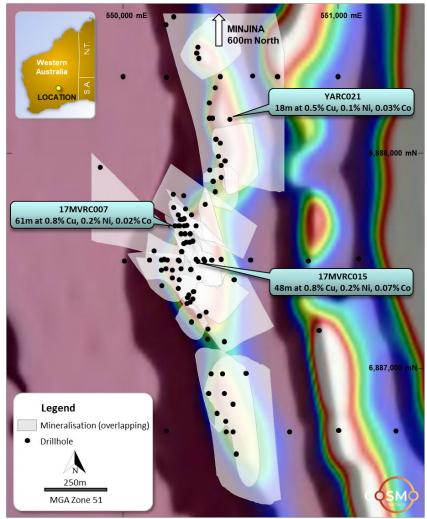
Deposit	> Attribute		Upper Limit 0.3% CuEq + 200mRL		Lower Limit >= 0.3% CuEq + Inpit <sup>4</sup>		
Deposit	Tonnes (Mt)		Metal (kt)	Grade (%)	Tonnes (Mt)	Metal (kt)	Grade (%)
	CuEq2023 <sup>4</sup>		177.2	0.55		64.5	0.63
Mt Venn	Copper	32.3	99.1	0.31	10.2	37.3	0.36
wit veim	Nickel	52.5	26.1	0.08	10.2	8.9	0.09
	Cobalt	alt 8.6 0.03		3.1	0.03		

<u>Table 1</u>: Mt Venn Exploration Target. Potential tonnes and grade ranges.

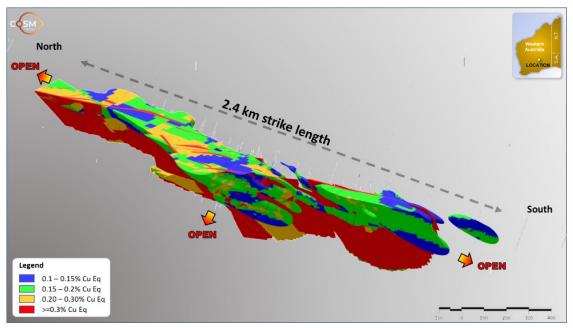
Notes: Tonnages are dry metric tonnes. Minor discrepancies may occur due to rounding.

<sup>&</sup>lt;sup>4</sup> The Copper equivalent has been calculated using metal pricing, recoveries and other payability assumptions for copper, nickel and cobalt as detailed in 'Other Substantive exploration data' in Section 2 of the attached JORC Code Table 1.





*Figure 9:* Mt Venn outline of Exploration Target wireframes, exiting drilling and mineralisation envelopes on background magnetic image (RTP`TMI).



*Figure 10: Mt Venn Mt Venn Exploration Target, 3D Block Model, Oblique View* 

14



The Exploration Target was reported using a 0.3% copper equivalent cut-off value above 200m RL (200m below topography) for the upper limit target range, and constrained within a pit optimisation shell for the lower limit target range.

Entech completed a conceptual pit optimisation study<sup>5</sup> from which outcomes were used as a guide in the assessment of reasonable depths and confidence in mineralisation continuity.

Metallurgical testwork undertaken by Great Boulder Resources Ltd (GBR) in 2018<sup>6</sup> indicates that coppernickel-cobalt reported in the Exploration Target can be recovered with current mineral processing technology<sup>7</sup>. Material classification is not applied for an Exploration Target.

The copper equivalent calculation is informed by metal recoveries from GBR's 2018 metallurgical test work undertaken and a rolling three-month average of LME metal price<sup>8</sup>.

The copper equivalent formula and assumptions are presented in Table 2 below with the following formula used to calculate copper equivalent for reporting purposes:

### CuEq(%) = ((Cu% + (((Ni% x 27105)/8891) x 0.7) + (((Co% x 38920)/8891) x 0.6))

#### Table 2: Key copper equivalent assumptions

Metal	Metal price <sup>8</sup> (USD\$/t)	Metallurgical Recoveries <sup>7</sup>	Copper equivalent calculation	
Cobalt	38,920	60%		
Copper	8,891		CuEq% = Cu% + (Ni% x (Ni price/Cu price) x (Ni metallurgical recovery)) + (Co%*(Co price/Cu price) x (Co metallurgical recover	
Nickel	27,105	70%		

NOTES:

• Material was classified as oxide, transitional and fresh based on interpreted surfaces

- The Exploration Target above 200mRL and CuEq >= 0.3% has an average density of 3.36 g/cm<sup>3</sup>
- It was assumed that Mt Venn could be potentially mined via open pit mining methods. This assumption was based on depth from surface, tenor of mineralisation and consideration of analogous deposits.

Further metallurgical testwork is planned in preparation for potential processing and economic studies once exploration target testing activities along the broader Mt Venn trend have been completed.

### Narragene (Cu-Ni-PGE)

The Company's Narragene tenement (E38/3640) covers the entire northern extension of the Mt Venn Complex.

Historical drilling along this trend has intersected wide (20-44m) zones of copper-dominant sulphide mineralisation with almost half the historical holes completed recording grades greater than 0.2% Cu.

During the March quarter, Cosmo was pleased to announce the granting of E38/3640, covering the Narragene Base Metals Project, and the completion of initial heritage work which has cleared the way for on-ground exploration.

<sup>&</sup>lt;sup>5</sup> ENT\_856\_CMO\_J969 Mt Venn Conceptual Pit Optimisation Memorandum 20220527.pdf

<sup>&</sup>lt;sup>6</sup> GBR ASX Announcement 23 October 2018

<sup>&</sup>lt;sup>7</sup> ALS, May 2018. A18729 – Mineralogical Report MIN3216

<sup>&</sup>lt;sup>8</sup> Source: London Metal Exchange: 3 month rolling average for Copper, Cobalt and Nickel from the London Metal Exchange as of 7 February 2023. Prices are in USD\$/t



There has been no on-ground exploration at the Narragene project in more than 20 years. A review of historical data by Cosmo's technical team has confirmed the prospectivity of the project and identified numerous high-priority target areas for on-ground verification. The target areas have been prioritised based on:

1. Widespread Cu-Ni mineralisation in rock chips and intersected in historical drilling, including hole MVRC010 with the highest-grade Ni intersection in the Mt Venn Greenstone Belt with:

### - 4m @ 1.2% Cu, 0.68% Ni from 33m *including 1m @ 0.5% Cu, 1.8% Ni from 35m*

MVRC010 is coincident with a NNW-trending shear zone, and has never been followed up despite intersecting the highest nickel grades drilled to date in the Mt Venn Igneous Complex.

- 2. Extensive mafic/ultramafic rocks (host for magmatic Cu-Ni±PGE mineralisation) associated with widespread copper-nickel mineralisation identified by historical rock chip sampling.
- 3. Widespread felsic volcanic rocks (potential host to VMS-style Zn-Pb-Ag mineralisation), which are interpreted to underlie extensive post mineral cover. This covered area was overlooked by historical explorers due to their focus on magmatic Cu-Ni (±PGE) deposits hosted within the better exposed mafic/ultramafic units.
- 4. Limited, and shallow historical drilling, with only 29 holes drilled within this 60km<sup>2</sup> tenement, with an average hole depth of 123m (maximum 230m).
- 5. Significant areas of post-mineral cover limiting effectiveness of surface prospecting techniques

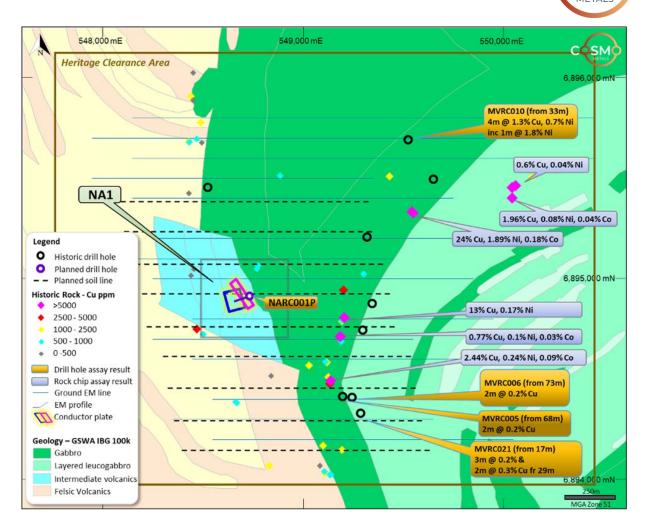
### **Ground Electromagnetic Survey**

In early 2023 the Company undertook a moving loop electromagnetic (MLEM) survey on eight lines initially targeting the contact of the mafic and felsic/intermediate rocks in an area associated with widespread copper and nickel mineralisation in historical rock chips and drilling.

The MLEM survey identified a strong conductor which was followed up with a Fixed-Loop EM (FLEM) survey with 52 stations observed along three profiles (total of two line-kilometres):

- L6895500 and L6895900 were planned to target extensions of the mineralised horizon interpreted in MVRC010, using a high (25 Hz) base frequency. No conductor was identified.
- L6894900 was planned to improve the resolution of a poorly constrained anomaly interpreted in previous ground EM and improve the geometry of the conductor.

This line identified a strong late-time anomaly which Cosmo has named "**NA1**" (*refer Figure 10*), with a plate model of dimensions 155 x 40m and a conductance of 7,670 S. The NA1 conductor is associated with elevated Cu and Ni in surface sampling. And a shallow (160m deep) drillhole – NARC001P - has been planned to test it.



*Figure 11:* NA1 prospect, Narragene Project. Ground EM lines, and planned soils with historical drill holes and rock chip samples on background GSWA 1:100,000 geology.

### **NEXT STEPS AT NARRAGENE**

The focus of follow up work Narragene will include:

- Ground truthing and mapping of the high priority target area which included NA1 (est. April/May 2023)
- Soil sampling to refine the NA1 target (est. May 2023)
- Heritage clearance for drilling at NA1 and additional clearances over the remainder of the priority targets (est June/July)

Drilling at Narragene will initially target the NA1 conductor and additional targets identified from the planned surface prospecting outlined above (timing will be post heritage clearances and scheduled to coincide with drill follow up at Minjina).



### Eastern Mafic Complex (Cu-Ni-Co-PGE)

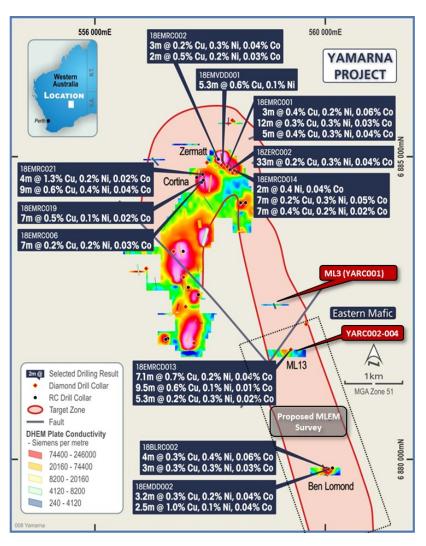
The Eastern Mafic Complex (EMC), ~7km east of Mt Venn, is defined by a 4.5km by 3.5km gravity anomaly discovered in 2018.

Limited exploration has been completed at EMC with only 36 holes drilled to date, targeting electromagnetic conductors identified by an airborne EM (AEM) survey flown in 2018, with all conductors drilled being associated with magmatic sulphides. Ni-Cu-Co (PGE) mineralisation at EMC is hosted within gabbro to anorthositic gabbro rocks with sulphides dominated by pyrrhotite - chalcopyrite with lesser pyrite.

Historical exploration at EMC targeted potential 'feeder zones' of the mineralised system (i.e., the potential source to near-surface mineralisation), with the potential to host large zones of sulphide mineralisation analogous to other Cu-Ni-PGE deposits globally.

Several high-priority prospects have been identified at EMC, including Zermatt, Cortina, ML3 and ML13 (*refer Figure 11*). These prospects remain largely open along strike and at depth and of note within this system is the presence of Platinum Group Elements (PGE's) in contrast to Mt Venn.

Exploration at EMC during the quarter was limited to targeting studies.



**Figure 12:** Eastern Mafic Complex, prospects, 2022 RC drilling with selected historical drill intersections<sup>9</sup>

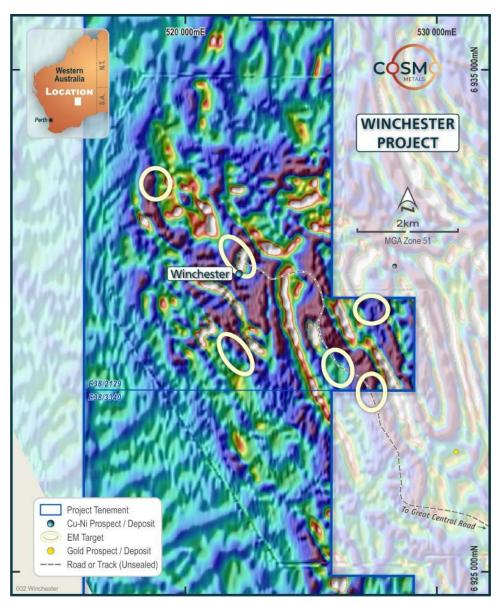
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<sup>&</sup>lt;sup>9</sup> Refer Independent Geologist's Report in CMO's Prospectus 22/11/2021



### WINCHESTER (CMO 75% - 100%)

The Winchester Project is located ~50km north of the Yamarna Project tenement package, comprising two tenements covering 91km<sup>2</sup> (*refer Figure 12*). Winchester contains magmatic hosted polymetallic (Cu-Ni-Co-PGE) mineralisation interpreted to be analogous to the Mt Venn deposit.



<u>Figure 13:</u> Cosmo Metals' Winchester Project with EM targets and location of the Winchester Prospect on background airborne magnetics (VD1 TMI)

Several phases of exploration have historically been completed at Winchester, however only 22 RC and DD holes have been drilled to date across the entire tenement area with numerous significant intercepts including<sup>10</sup>:

- 7m @ 1.1 % Cu, 0.2% Ni, 0.01% Co, 0.13ppm PGE and 0.19g/t Au from 123 m (18WNRC001)
  - o including 2m @ Cu 1.8% Cu, 0.2 % Ni, 0.02% Co, 0.22ppm PGE and 0.25g/t Au from 126m

<sup>&</sup>lt;sup>10</sup> Refer Independent Geologist's Report in CMO's Prospectus 22/11/2021



- 13m @ 0.9 Cu %, 0.3 % Ni, 0.02 % Co from 138 m (18WNRC002)
  - o including 2m @ 1.5% Cu, 0.1% Ni, 0.01% Co and 0.12g/t Au from 138 m
  - o and 5m @ 1.1% Cu, 0.7% Ni, 0.04% Co and 0.1ppm PGE from 144m
- 4.4m @ 0.8% Cu, 4.7g/t Ag from 201.86 m (20WNRCD002)
- 19m @ 0.6% Cu, 0.3% Ni, and 0.02% Co from 106m (YMRC010) 10
  - o including 10m @ 0.8% Cu, 0.4% Ni, 0.03% Co
- 13m at 0.9% Cu, 0.3% Ni, 0.02% Co from 138m (18WNRC002) 10
  - o including 5m at 1.1% Cu, 0.7% Ni, 0.04% Co, 0.10g/t PGE

#### March quarter Winchester program

During the December 2022 quarter the Company completed review of the results from a downhole electromagnetic (DHEM) survey in four holes (20WMRC001-004) drilled in 2020.

The DHEM survey resolved several in-hole conductors adequately tested by the drilling. Two strong offhole conductors at holes 20WNRCD002 and 003 are interpreted to reflect stratigraphic conductors (e.g. graphitic sediments) rather than mineralisation, and therefore downgraded as potential targets.

Ongoing review of the Winchester area has highlighted several regional targets for follow up with further ground geophysics.



### PINGRUP (CMO 100%)

Cosmo Metals' Pingrup Project comprises two recently granted tenements in the southern Wheatbelt region of Western Australia (*refer Figure 13*).

The Pingrup tenements overlie farmland south of Lake Grace and are considered to be prospective for copper-nickel mineralisation associated with interpreted mafic-ultramafic intrusions within high metamorphic grade rocks of the South West Terrane (SWT) which also host Chalice Mining Limited's (ASX:CHN) Julimar deposit.

The Pingrup Project represents conceptual targets generated from desktop analysis of regional magnetic data with further meetings held by the Company with key landowners during the quarter.

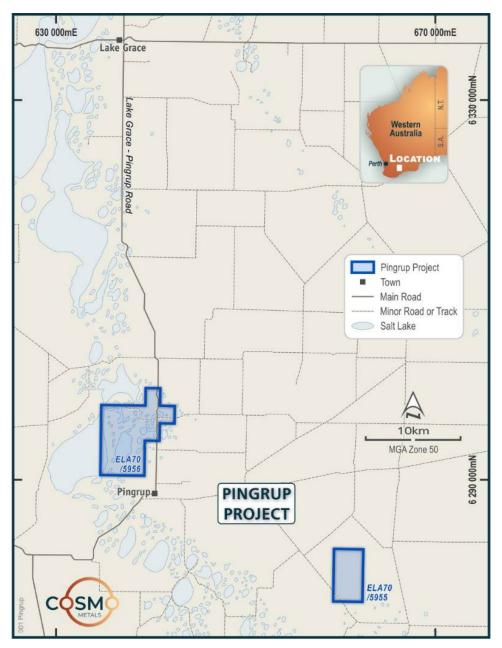


Figure 14: Cosmo Metals' Pingrup Project, South West Terrane, Western Australia



### CORPORATE

### **Exploration Expenditure**

In accordance with ASX Listing Rule 5.3.1, the Company spent \$528,000 on exploration work during the quarter, which comprised drilling, geophysical surveys, targeting and planning.

### **Mining Production and Development Activities**

In accordance with ASX Listing Rule 5.3.2, there were no substantive mining production and development activities during the quarter.

### **Payments to Related Parties**

In accordance with ASX Listing Rule 5.3.5, Cosmo advises that the payments to related parties of the Company and their associates, as advised in the Appendix 5B, for the quarter ended 31 March 2023 was \$113,000 of which \$44,000 was related to exploration consulting services and \$69,000 to Directors' fees.

At the end of the quarter the Company had \$0.85 million in cash.

#### **Expenditure since Listing**

In accordance with ASX Listing Rule 5.3.4, Cosmo provides the following comparison of its actual expenditure to 31 March 2023 since listing on 31 January 2022 against the "Use of Funds" statement in its prospectus dated 22 November 2021.

Item	Current Quarter	Project-to-Date	As per IPO Prospectus dated 22 November 2021**
Yamarna Project	\$476,232	\$2,431,889	\$2,229,261
Winchester Project	\$31,265	\$155,356	\$649,580
Pingrup (Wheatbelt) Project	\$14,785	\$47,494	\$78,212
Mulgabiddy Project	\$6,571	\$37,777	-
Capital and consulting	-	\$68,912	\$173,938
Working Capital	-	-	-
Corporate Costs	\$189,946	\$1,105,991	\$1,303,209
Costs of the Offer	-	\$407,815	\$565,800
Total	\$711,799	\$4,255,225	\$5,000,000

\*\*Expenditure is over a two-year period

The Company confirms that, in the period since re-listing on the ASX, it has incurred expenditures largely in line with the Use of Funds set out on page 27 of its Prospectus dated 22 November 2021.

#### **Investor Relations**

The Company continues to disseminate relevant company-specific and appropriate macro-related newsflow via social media platforms and directly via Cosmo's proprietary CRM database of shareholders, investors and corporate advisors.

During the quarter, the Company engaged directly with shareholders and continued to provide updates to various corporate advisory groups and brokers regarding exploration activities including detailed explanations of the significance of the Minjina exploration results and future work programs.



This announcement is authorised for release to the ASX by the Board of Cosmo Metals Ltd.

For further information please contact:				
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Website: cosmometals.com.au				
in Follow CMO on LinkedIn	<b>Follow CMO on Twitter</b>			

#### Table 3 – Cosmo Metals' Tenement Schedule 31 March 2023

Tenement ID	Project	Status	Holder(s)	Interest at End of Quarter
E38/2129	Winchester JV	Granted	Cosmo Metals Ltd/Ausgold Exploration Pty Ltd	75%
E38/2320	Yamarna	Granted	Cosmo Metals Ltd	100%
E38/2685	Yamarna	Granted	Cosmo Metals Ltd	100%
E38/2952	Yamarna	Granted	Cosmo Metals Ltd	100%
E38/2953	Yamarna	Granted	Cosmo Metals Ltd	100%
E38/2957	Yamarna	Granted	Cosmo Metals Ltd	100%
E38/2958	Yamarna	Granted	Cosmo Metals Ltd	100%
E38/3340	Winchester	Granted	Cosmo Metals Ltd	100%
E38/3640	Yamarna	Granted	Cosmo Metals Ltd	100%
E38/3753	Mulgabiddy	Granted	Cosmo Metals Ltd	100%
E38/3754	Mulgabiddy	Granted	Cosmo Metals Ltd	100%
E70/5955	Pingrup	Granted	Cosmo Metals Ltd	100%
E70/5956	Pingrup	Granted	Cosmo Metals Ltd	100%
P38/4178	Yamarna	Granted	Cosmo Metals Ltd	100%
P38/4540	Yamarna	Granted	Cosmo Metals Ltd	100%



#### Competent Persons Statement

The information in this report that relates to Exploration Results is based upon and fairly represents information compiled by Mr James Merrillees, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Merrillees is a full-time employee of the Company.

Mr Merrillees 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 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Merrillees consents to the inclusion in the report of the matter based on his information in the form and context in which it appears.

The information that relates to Mt Venn Exploration Target was first reported by the Company in its announcement to the ASX on 16 February 2023. The Company is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not material changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

#### Forward-Looking Statements

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Cosmo's planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should," and similar expressions are forward-looking statements. Although Cosmo believes that its expectations reflected in these forward-looking statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

#### About Cosmo Metals Ltd

Cosmo Metals Ltd (Cosmo; ASX: CMO) is an ASXlisted, base metals exploration company focused on the advancement of its flagship Mt Venn, Winchester and Eastern Mafic projects in the underexplored Yamarna Belt, in the Eastern Goldfields region of Western Australia.

The Yamarna Belt is considered highly prospective for copper-nickel-cobalt (Cu-Ni-Co) and platinum group elements (PGE) and Cosmo's well regarded technical team is advancing exploration on multiple fronts to unlock the potential of the region.

With previous drilling having identified sulphide Cu-Ni-Co mineralisation at Cosmo's key projects, the company has a unique opportunity to add value from this 460km<sup>2</sup> landholding



24

## Appendix 5B

# Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity	
COSMO METALS LTD	
ABN	Quarter ended ("current quarter")
17 653 132 828	31 March 2023

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	-	-
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(79)	(245)
	(e) administration and corporate costs	(107)	(286)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	3	10
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	-	-
1.9	Net cash from / (used in) operating activities	(183)	(521)

2.	Cash flows from inve	esting activities		
2.1 Payments to acquire or for:		or:		
	(a) entities		-	-
	(b) tenements		-	-
	(c) property, plant and e	equipment	-	(1)
	(d) exploration & evaluation	ation	(528)	(1,741)
	(e) investments		-	-
	(f) other non-current as	ssets	-	-

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	51
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (security deposits paid)	-	-
2.6	Net cash from / (used in) investing activities	(528)	(1,691)

3.	Cash flows from financing activities	
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	
3.2	Proceeds from issue of convertible debt securities	
3.3	Proceeds from exercise of options	
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-
3.5	Proceeds from borrowings	
3.6	Repayment of borrowings	-
3.7	Transaction costs related to loans and borrowings	
3.8	Dividends paid	-
3.9	Other (provide details if material)	
3.10	Net cash from / (used in) financing activities	-

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	1,558	3,059
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(183)	(521)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(528)	(1,691)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	847	847

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	847	1,558
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	847	1,558

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	69
6.2	Aggregate amount of payments to related parties and their associates included in item 2	44
	if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must includ nation for, such payments.	le a description of, and an

7.	<b>Financing facilities</b> Note: the term "facility' includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at qu	larter end	-
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		
	N/A		

8.	Estimated cash available for future operating activities	\$A'000	
8.1	Net cash from / (used in) operating activities (item 1.9)	(183)	
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(528)	
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(711)	
8.4	Cash and cash equivalents at quarter end (item 4.6)	847	
8.5	Unused finance facilities available at quarter end (item 7.5)		
8.6	Total available funding (item 8.4 + item 8.5)		
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	1.19	
	Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.		
8.8	If item 8.7 is less than 2 quarters, please provide answers to the following questions:		
	8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?		
	Answer: Yes, the Company expects to have negative operating cash flows for the time being as it is in the exploration stage and does not generate income.		
	8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?		
	Answer: The Company is considering its options with regards to raising additional funds. The Company believes it would be successful in raising sufficient funds to continue with the planned level of operations.		

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: Yes, the Company does expect to be able to continue its operations and meet its business objectives based on future expected successful capital raisings.

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

### **Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 27 April 2023

Authorised by: <u>By the Board of Cosmo Metals Ltd</u> (Name of body or officer authorising release – see note 4)

#### Notes

- This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.