5 SEPTEMBER 2022

ASX RELEASE

WIDE SULPHIDE INTERSECTIONS AT MT VENN NEW BASE METAL TARGET

HIGHLIGHTS

- **1,550m RC drilling program complete at Cosmo's flagship Mt Venn Project**
- **Program intersected further wide sulphide intervals in all 7 holes drilled, extending known mineralisation to the north, south and down-dip of previous drilling**
- **YARC021 intersecting a continuous zone of over 16m of massive and semi-massive sulphides**
- **Drilling targeted shallow, widespread copper at Mt Venn where mineralisation is defined over a strike length of 1.5km, outcrops at surface and remains open in all directions**
- **DHEM surveys completed on 14 holes including four holes drilled in 2020 at Winchester, the first work completed at this project since COVID travel restrictions were introduced in 2020**
- **MLEM survey to commence mid-September to follow up on new targets at Eastern Mafic**
- **RC drill rig lined up for a further 2,000m program in September/October to follow up on DHEM and MLEM targets at Mt Venn, Eastern Mafic and Winchester**

Cosmo's Managing Director, James Merrillees commented:

"This latest round of RC drilling at Mt Venn is a great result for Cosmo's technical team. To have intersected sulphides in all seven holes drilled is an outstanding result and continues to underpin our geological model at Mt Venn.

In particular, the 16m interval of massive and semi-massive sulphides in hole YARC021 is a great result and we are looking forward to receiving assays from the lab for this hole and the rest of the program, which has extended known mineralisation to the north, south and down-dip.

While we're busy conducting further geophysical surveys over the Yamarna projects for future dill targeting, we're got an active RC drilling schedule ahead with another 2,000m program at Mt Venn, Eastern Mafic and Winchester due to commence in October."

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Shares on Issue: 50.5M
Market Cap: $7.1M (at $0.14)
Cash: $3.1M (at 30 June 2022)

Cosmo Metals Ltd ("**Cosmo"** or **"the Company**") is pleased to advise it has completed a further seven-hole (1,550m) reverse circulation (RC) drilling program at the Mt Venn Project in the Yamarna district of Western Australia (*refer figure 1*).

The primary aim of the program was to support the Company's copper (Cu) resource studies at Mt Venn, and drilling targeted extensions of the shallow, thick Cu mineralisation as evident by the RC drill program completed in late 2021 which returned several wide, higher-grade copper intersections including[1]:

- 46m @ 0.80% Cu from 141m in 21MVRC001 including
    - **12m @ 1.26% Cu from 155m; and**
    - **13m @ 1.06% Cu from 170m.**

This latest program was the second phase of drilling at Yamarna this year, following on from a program in April-May which intersected shallow, wide intersections of copper mineralisation including[2]:

- 22m @ 0.48% Cu, 0.16% Ni and 0.06% Co from 135m in YARC008 including
    - 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

The recently completed program intersected wide zones of sulphide mineralisation (pyrrhotite>>chalcopyrite) and a compilation of visual intercepts is provided in Table 1.

All holes drilled intersected sulphides at target depths with mineralisation dominated by pyrrhotite with hole YARC021 intersecting a continuous zone of over 16m of massive and semi-massive sulphides (pyrrhotite>>chalcopyrite) from 142m.

In relation to the disclosure of visual mineralisation, the Company cautions that visual estimates of sulphide abundance should not be considered a proxy or substitute for laboratory analysis. Laboratory assay results are required to determine the width and grade of the visual mineralisation reported in geological logs. The Company will update the market when laboratory analytical results become available.

The Company's laboratory estimates October for reporting of these analyses and the Company will update the market when these are received.

Downhole Electromagnetic Survey (DHEM)

The August RC drilling program successfully got to planned depths on all holes, which included redrilling hole YARC016 (now YARC019) which was abandoned at 20m due to difficult ground conditions.

During the drilling program a geophysical crew on site completed DHEM surveys on holes YARC017-022 (six holes). DHEM is considered an important exploration tool for conductive mineralisation such as magmatic Cu-Ni sulphides, the target of Cosmo's exploration programs at Yamarna.

[1] *Refer CMO ASX Announcement 16/02/22*
[2] *Refer CMO ASX Announcement 25/07/22*

The crew also surveyed four holes (20WNRCD01-004) at the Winchester Project, ~50km to the north, which had been drilled in 2020 but never surveyed due to COVID-related travel restrictions at the time. Hole 20WNRCD002 intersected several sulphide zones that remain open along trend including[3]:

- 4.4m @ 0.8% Cu, 4.7g/t Ag, 0.08% Ni and 0.01% Co from 201.86m (20WNRCD002)

The remaining three holes (220WNRCD001, 003 & 004) did not intersect any significant mineralisation and the EM targets remain unexplained with DHEM expected to provide further information to explain these targets.

One hole drilled by Cosmo at Eastern Mafic on the ML3 target (YARC001) was also surveyed. The ML3 target is a prominent EM anomaly associated with a locally strong magnetic anomaly, adjacent to a regional NNW structure. Three RC holes drilled at ML3 (including YARC001) failed to intersect any conductive geology sufficient to explain the anomaly.

All DHEM data is currently with the Company's geophysical team for modelling and interpretation with results from this work expected in the coming weeks.

FORWARD PLAN

Moving Loop EM Survey (MLEM)

A ground geophysical crew will now mobilise to Yamarna in mid-September for a two-week moving loop electromagnetic (MLEM) survey to follow up on new targets generated from the Company's review of historical exploration at Mt Venn and Eastern Mafic.

The MLEM survey will also target the ML13 prospect at Eastern Mafic where Cosmo drilled three holes (YARC002-004) to test extensions of an electromagnetic conductor including the up-dip extension of mineralisation in historical hole 18EMRCD13 which intersected[4]:

- 5.3 m at 0.2% Cu, 0.3% Ni, 0.02% Co, 0.09g/t PGE from 161m, and
- 7.1 m at 0.7% Cu, 0.2% Ni,0.04% Co from 282.8m, and
- 9.5 m at 0.6% Cu, 0.1% N, 0.01% Co, 0.21g/t PGE from 322m

Due to ground conditions YARC003 – planned to test the up-dip extension of 18EMRCD13 - was abandoned short of the target. YARC002 and YARC004 intersected several zones of significant mineralisation at ML13 including[5]:

- 6m @ 0.19% Cu from 132m in YARC002
- 10m @ 0.20% Cu from 70m in YARC004

Notably YARC004 (~150m south of the conductor defined at ML13) targeted a position where no conductor was identified in the airborne survey and mineralisation has now been defined over more than 250m with the nearest drillhole more than 1km to the south of YARC004.

To better screen this target lower frequency ground based moving loop EM (MLEM) is required.

Results from modelling of the DHEM survey are also expected to generate several new targets for follow up drilling.

[3] *Refer Independent Geologist's Report within Cosmo Metals' Prospectus dated 22 November 2021*
[4] *Refer Independent Geologist's Report within Cosmo Metals' Prospectus dated 22 November 2021*
[5] *Refer CMO ASX Announcement 25/07/22*

October RC Drilling Campaign

In anticipation of the results from the MLEM geophysical survey and modelling of DHEM the Company has engaged an RC drilling contractor to mobilise to site in October for a 2,000m campaign to test the best of these targets.

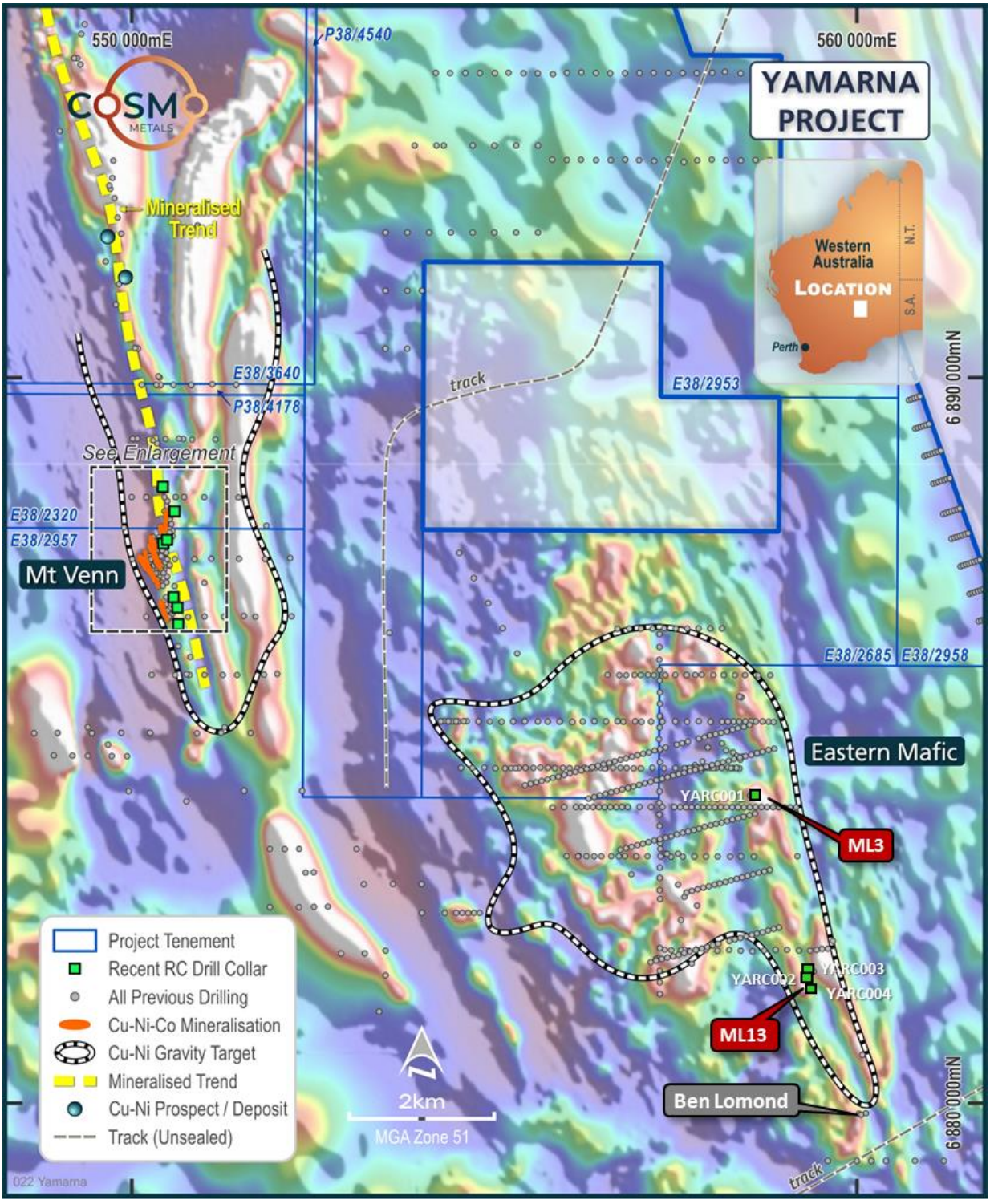

Figure 1: *Cosmo Metals' Yamarna Project, Eastern Goldfields Western Australia. Location of recently completed drill holes and Eastern Mafic prospects on regional airborne magnetic imagery (RTP TMI).*

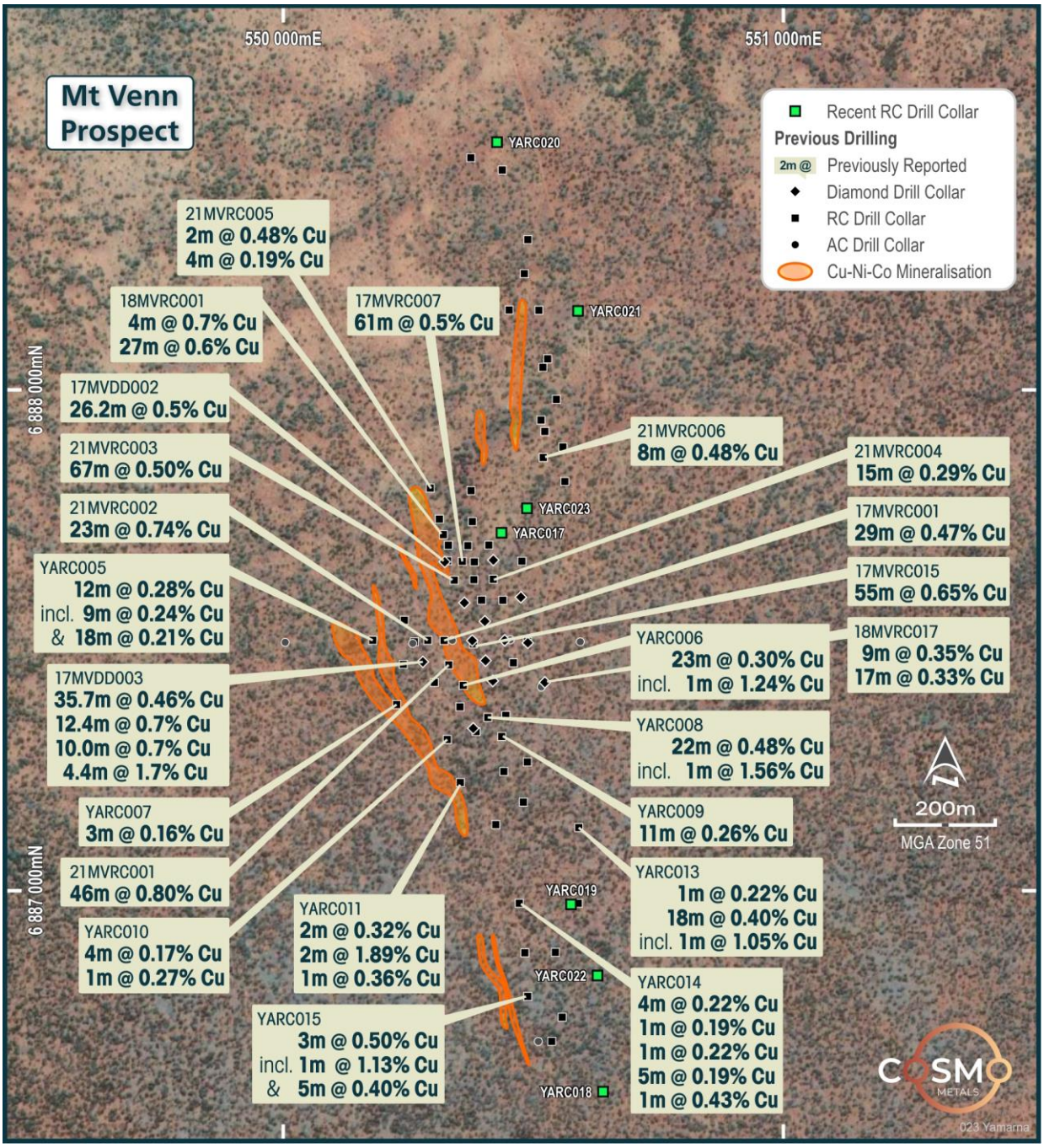

Figure 2: *Cosmo Metals' Mt Venn Project. August 2022 RC drilling including selected historical drill intersection on aerial photo background. For details of historical intersections, including JORC Table 1, refer CMO ASX Announcement 25 June 2022 and Independent Geologist's Report within Cosmo Metals' Prospectus dated 22 November 2021[1].*

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

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Note 1: Information on historical results, including JORC Code Table 1 information, is contained in the Independent Geologist's Report within Cosmo Metals' Prospectus dated 22 November 2021. The Company confirms it is not aware of any new information or data that materially affects the exploration results set out in the Prospectus and all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

About Cosmo Metals Ltd

Cosmo Metals Ltd (Cosmo; ASX: CMO) is an ASX-listed, 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^2 landholding

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.

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 are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

APPENDIX A DRILL HOLE INFORMATION

TABLE 1: *RC drill hole coordinate details. Drill hole coordinates MGA94 Zone 51 (GDA94). Collars located with handheld GPS (±5 m accuracy), EOH= end of hole depth, RC = Reverse Circulation drill hole*

PROJECT	HOLE ID	HOLE TYPE	EOH (M)	EAST MGA	NORTH MGA	RL MGA	DIP	AZIMUTH MGA
YAMARNA	YARC017	RC	246	550436	6887711	411	-60	270
YAMARNA	YARC018	RC	240	550639	6886595	409	-60	270
YAMARNA	YARC019	RC	248	550575	6886969	409	-60	270
YAMARNA	YARC020	RC	162	550427	888491	412	-60	270
YAMARNA	YARC021	RC	192	550589	6888154	412	-60	270
YAMARNA	YARC022	RC	246	550628	6886827	409	-60	270
YAMARNA	YARC023	RC	216	550487	6887760	411	-60	270

TABLE 2: *Note that samples are currently at the laboratory and this announcement only makes reference to visual estimates of sulphide percentages >10%, noting that in relation to the disclosure of visual mineralisation, the Company cautions that visual estimates of sulphide abundance should not be considered a proxy or substitute for laboratory analysis. Laboratory assay results are required to determine the width and grade of the visual mineralisation reported in geological logs. The Company will update the market when laboratory analytical results become available.*
po=pyrrhotite, cp = chalcopyrite py = pyrite

HOLE ID	TOTAL DEPTH (M)	DEPTH FROM (M)	DEPTH TO (M)	LENGTH (M)	SULPHIDE (%)	TEXTURE	SULPHIDE TYPE 1	SULPHIDE TYPE 2
YARC017	246	123	124	1	50	massive	po	
		139	140	1	50	massive	po	
		142	143	1	40	semi-massive	po	
		145	148	3	20	semi-massive	po	
		203	207	4	50	massive	po	
YARC018	240	195	196	1	10	aggregate	po	
		196	200	4	40	semi-massive	po	
		200	203	3	10	aggregate	po	
		216	217	1	10	aggregate	po	
		228	231	3	70	semi-massive	po	
YARC019	248	165	166	1	20	semi-massive	po	
YARC020	162	98	100	2	80	semi-massive	po	

HOLE ID	TOTAL DEPTH (M)	DEPTH FROM (M)	DEPTH TO (M)	LENGTH (M)	SULPHIDE (%)	TEXTURE	SULPHIDE TYPE 1	SULPHIDE TYPE 2
YARC021	192	142	143	1	10	aggregate	po	
		143	145	2	100	massive	po	
		145	147	2	80	semi-massive	po	
		147	150	3	100	massive	po	cp
		150	157	7	80	semi-massive	po	cp
		157	159	2	100	massive	po	
		167	168	1	90	massive	po	
YARC022	246	113	114	1	70	semi-massive	po	
		171	175	4	40	aggregate	po	
		205	210	5	15	aggregate	po	
		211	212	1	40	aggregate	po	
		212	214	2	10	aggregate	po	
		220	222	2	10	aggregate	po	
		222	223	1	30	aggregate	po	cp
		223	224	1	80	semi-massive	po	
		224	229	5	30	aggregate	po	cp
		228	229	1	95	massive	po	
		229	232	3	75	semi-massive	po	
		232	233	1	25	aggregate	po	cp
		233	236	3	10	disseminated	po	
YARC023	216	86	87	1	15	aggregate	py	po
		91	95	4	15	aggregate	po	
		95	96	1	60	semi-massive	po	
		179	184	5	10	aggregate	po	
		184	186	2	20	aggregate	po	
		186	187	1	60	semi-massive	po	
		187	190	3	80	semi-massive	po	cp
		190	191	1	95	massive	po	

HOLE ID	TOTAL DEPTH (M)	DEPTH FROM (M)	DEPTH TO (M)	LENGTH (M)	SULPHIDE (%)	TEXTURE	SULPHIDE TYPE 1	SULPHIDE TYPE 2
		191	192	1	80	semi-massive	po	cp

APPENDIX B JORC CODE, 2012 EDITION – TABLE 1

SECTION 1 - SAMPLING TECHNIQUES AND DATA

(Criteria in this section apply to all succeeding sections) Note that samples are currently in the laboratory and this announcement only includes visual estimates of sulphide percentages noting that in relation to the disclosure of visual mineralisation, the Company cautions that visual estimates of sulphide abundance should not be considered a proxy or substitute for laboratory analysis. Laboratory assay results are required to determine the width and grade of the visual mineralisation reported in geological logs. The Company will update the market when laboratory analytical results become available.

CRITERIA	COMMENTARY
Sampling techniques	RC samples were collected into calico bags over 1m intervals using a cyclone splitter. The residual bulk samples are placed in piles on the ground. Two cone splits are taken off the rig splitter for RC drilling. Visually prospective zones were sampled over 1m intervals and sent for analysis while the rest of the hole was composited over 4m intervals by taking a spear sample from each 1m bag. A quality assurance /quality control (QAQC) system comprising internal and laboratory standards, blanks and duplicates were used to evaluate analytical results.
Drilling techniques	Industry standard drilling methods and equipment were utilised. Reverse Circulation (RC) Drilling was undertaken by Challenge Drilling using 130 to 140mm diameter drill bits. RC drilling employed face sampling hammers ensuring contamination during sample extraction is minimised.
Drill sample recovery	Sample recovery data is noted qualitatively in geological comments as part of the logging process. Sample condition has been logged for every geological interval as part of the logging process. No quantitative twinned drilling analysis has been undertaken and no information is available to assess the relationship between sample recovery and grade.
Logging	Geological logging of drilling followed established company procedures. Qualitative logging of samples includes lithology, mineralogy, alteration, veining and weathering. Abundant geological comments supplement logged intervals.
Sub-sampling techniques and sample preparation	1m cyclone splits and 4m speared composite samples were taken in the field. Samples were prepared and analysed at ALS Laboratories Perth. All samples were submitted to ALS Laboratory (Perth) for analyses. Sample preparation included: Samples were weighed, crushed (such that a minimum of 70% pass 2mm) and pulverised (such that a minimum of 85% pass 75µm) as per ALS standards. A 4-acid digest and ICP-AES (ALS method; MS-ICP61) was used for 33 multi-elements including Co, Cu, Ni & Zn. For elements that reported over range, ALS used ore grade 4-acid digest and ICP-AES methods; nickel (Ni-OG62), copper (Cu-OG62), and sulfur (S-IR08 Leco Sulphur analyzer). Sample collection, size and analytical methods are deemed appropriate for the style of exploration.
Quality of assay data and laboratory tests	All samples were assayed by industry standard techniques. Typical analysis methods are detailed in the previous section and are consider 'near total' values.

CRITERIA	COMMENTARY
	Routine 'standard' (mineralised pulp) Certified Reference Material (CRM) was inserted by Cosmo at a nominal rate of 1 in 50 samples. Routine 'blank' material (unmineralised sand) was inserted at a nominal rate of 1 in 100 samples. No significant issues were noted. No duplicate or umpire checks were undertaken. ALS (Perth) provided their own routine quality controls within their own practices. No significant issues were noted.
Verification of sampling and assaying	The standard CMO protocol was followed for insertion of standards and blanks with a blank and standard inserted per 40 samples. No QAQC problems were identified in the results. No twinned drilling has been undertaken.
Location of data points	Drill collars were set out using a handheld GPS and final collar were collected using a handheld GPS. Sample locations were collected using a handheld GPS as was deemed acceptable for the nature of this program. Downhole surveys were completed by the drilling contractors using the Reflex EZ-TRACK with a measurement taken every 30m downhole. Holes without downhole survey use planned or compass bearing/dip measurements for survey control. MGA94 UTM zone 51 coordinate system was used.
Data spacing and distribution	The spacing and location of most of the drilling in the CMO projects is variable which is common with early exploration. The spacing and location of data is considered acceptable for exploration purposes.
Orientation of data in relation to geological structure	Drilling is nominally perpendicular to regional geological and mineralisation trends where interpreted and practical. True width and orientation of intersected mineralisation is currently uncertain. The spacing and location of data is considered acceptable for exploration purposes.
Sample security	Cosmo Metals' personnel are responsible for delivery of samples from the drill site to the courier company's dispatch center at the Yamarna Camp. Samples were transported by courier from Yamarna to the laboratory in Perth.
Audits or reviews	None completed.

SECTION 2 REPORTING OF EXPLORATION RESULTS

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

CRITERIA	COMMENTARY
Mineral tenement and land tenure status	The Yamarna Project comprises the following tenements held 100% by Great Boulder Ltd with applications in process to transfer ownership to Cosmo Metals Ltd. Tenements comprise Exploration licences E38/2320, E38/2685, E38/2952, E38/2953, E38/5957, E38/2958. Exploration licence application E38/3640 and prospecting licence application P38/4178.
Exploration done by other parties	Previous explorers included: • 1990's. Kilkenny Gold NL completed wide-spaced, shallow, RAB drilling over a limited area. Gold assay only. • 2008. Elecktra Mines Ltd (now Gold Road Resources Ltd) completed two shallow RC holes targeting extension to Mt Venn igneous complex. XRF analysis only, no geochemical analysis completed.

CRITERIA	COMMENTARY
	• In 2011 Crusader Resources Ltd completed broad-spaced aircore drilling targeting extensions to the Thatcher's Soak uranium mineralisation. Only XRF analysis was completed. • In late 2015 Gold Road drilled and assayed an RC drill hole on the edge of an EM anomaly identified from an airborne XTEM survey, identifying copper-nickel-cobalt mineralisation. • In 2017 Great Boulder subsequently re-assayed the Gold Road hole and confirmed primary bedrock sulphide mineralisation, with peak assay results of 1.7% Cu, 0.2% Ni, 528ppm Co (over 1m intervals) over two distinct lenses. • Great Boulder completed a ground based moving loop EM survey in September 2017 and reported extensive strong EM conductors and co-incident copper-nickel mineralisation from aircore geochemistry. Full drillhole details of all historical drilling and exploration results can be found in the Independent Geologist's Report in Cosmo Metals' Prospectus dated 22 November 2021 available from the Company's website.
Geology	Cosmo Metals' Yamarna Project hosts the southern extension of the Mt Venn igneous complex. This complex is immediately west of the Yamarna greenstone belt. The mineralisation encountered in the Mt Venn drilling suggests that sulphide mineralisation is defined by a prominent long EM conductive and magnetic trend and shows a highly sulfur-saturated system within a metamorphosed dolerite and gabbro sequence. Visual logging of sulphide mineralogy shows pyrrhotite dominant with lesser chalcopyrite.
Drill hole Information	A list of drill hole coordinates, orientations and intersections reported in this announcement are provided in the body and appendices within this announcement.
Data aggregation methods	Results were reported using cut-off levels relevant to the sample type. For single metre splits, significant intercepts were reported for grades greater than 0.15% Cu with a maximum dilution of 2m. High grade intervals are quoted using a >1% Cu cut-off with a maximum of 2m internal dilution. No maximum or minimum grade truncations have been applied. A weighted average calculation was used to allow for bottom of hole composites that were less than the standard 4m and when intervals contain composited samples plus 1m split samples. No metal equivalents are used.
Relationship between mineralisation widths and intercept lengths	The orientation of structures and mineralisation is not known with certainty; however drill holes were oriented perpendicular to interpreted mineralisation.
Diagrams	Appropriate maps, sections and tabulations are presented in the body of this announcement.
Balanced reporting	All composite samples were assayed however comprehensive reporting of all results is not practicable. Significant intersections are reported in the body and appendices of this announcement Holes not reported do not contain significant intersections.
Other substantive exploration data	Not applicable, no other material exploration data.
Further work	Further work is discussed in the body of this announcement.