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17 November 2021 **ASX ANNOUNCEMENT**

Updated Nifty Copper Mineral Resource Estimate

HIGHLIGHTS

- **Updated Mineral Resource estimate (MRE) completed for the heap leachable and deeper primary sulphide mineralisation contained within the Nifty copper deposit.**
- **Heap leachable Measured, Indicated and Inferred Resource significantly increased to 11.9Mt at 1.1% Cu for ~135,000t of contained copper metal delivering a substantial near surface copper inventory available for the Heap Leach Restart Study.**
- **The total Measured, Indicated and Inferred Resource at Nifty has increased by ~97,000t (15%) of contained metal to 45.9Mt at 1.6% Cu for ~732,000t total contained copper metal.**
- **Recent RC drilling results indicates excellent potential to further grow the resource.[1]**
- **Nifty's position within the top 20 of Australian copper deposits confirmed.**

Managing Director Barry Cahill commented:

> *"Our maiden Mineral Resource estimate for the Nifty copper deposit is the culmination of many months of geological rigor undertaken by our geological team, assisted by experienced external consultants. It is the first model for the deposit that combines both the remnant heap leachable and primary sulphide mineralised domains into a single contiguous estimate.*
>
> *This new MRE not only confirms Nifty as a top tier copper deposit but also underpins the development options currently being assessed as part of the Nifty Heap Leach Restart Study, which is on track for delivery during December. The significant increase in the heap leachable component of the deposit also affirms our view that Nifty has a considerable scope to become a long-term producer of SX-EW copper cathode."*

Discussion

Cyprium Metals Limited (ASX: CYM) ("**Cyprium**" or the "**Company**") is pleased to announce the Company's maiden Mineral Resource estimate (MRE) for the Nifty copper deposit following the completion of the acquisition of the Paterson Copper Project in March 2021. Cyprium's previously disclosed estimate for Nifty was based on a review of the estimate disclosed by the former owner of the project at 31 December 2019.[2]

The current Nifty MRE of 45.9Mt at 1.6% copper for a total contained copper inventory of approximately 732,000t (refer to Table 1) is significant because for the first time, a single model has been constructed of the various geometallurgical domains reflecting how the copper mineralisation can be recovered.

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[1] Refer to Cyprium's ASX releases "*Significant Copper Intersections from Nifty West Drilling*" dated 2 November 2021 and "Nifty East Extensional Drilling Results" dated 28 September 2021

[2] Refer to Cyprium's ASX release "*Transformational Acquisition of Highly Attractive Copper Portfolio*" dated 10 February 2021

Table 1: November 2021 Mineral Resource Estimate (MRE) – Nifty Copper Deposit

Ore Source	Cut-Off	Measured			Indicated			Inferred			Total		
	%Cu	Ore Mt	Grade %Cu	Metal t Cu	Ore Mt	Grade %Cu	Metal t Cu	Ore Mt	Grade %Cu	Metal t Cu	Ore Mt	Grade %Cu	Metal t Cu
Oxide	**0.4**	1.1	1.2	12,300	0.3	1.1	3,300	0.2	0.9	1,700	1.6	1.1	17,300
Lower Saprolite	**0.4**	1.3	0.9	12,200	0.4	0.8	3,000	0.2	0.8	1,200	1.8	0.9	16,300
Transition	**0.4**	0.2	0.7	1,500	0.2	0.7	1,000	0.2	0.7	1,200	0.5	0.7	3,700
Chalcocite	**0.4**	4.3	1.2	53,800	2.3	1.2	28,400	1.4	1.2	16,100	8.0	1.2	98,300
Total Oxide	**0.4**	7.0	1.2	79,700	3.1	1.1	35,600	1.9	1.1	20,100	11.9	1.1	135,500
Sulphide	**0.75**	19.6	1.8	351,200	9.2	1.8	161,900	5.1	1.6	76,900	33.9	1.8	596,700
TOTAL		**26.5**	**1.6**	**431,000**	12.3	1.6	**197,500**	7.0	1.5	**97,100**	45.9	1.6	**732,200**

The Nifty Heap Leach Restart Study is focussed on the development of the first phase of the project that involves a return to heap leaching and solvent extraction electrowinning (SX-EW) to produce refined copper cathode on site. The significant inventory of remnant heap leachable mineralisation confirmed by this MRE (11.9Mt at 1.1% copper for approximately 135,000t of contained copper metal). Our recent drilling at Nifty West and East has been designed primarily to confirm the mineralisation and to improve the confidence, hence classification of inferred resource, plus possible extension of mineralisation.

By way of background, Nifty was discovered by Western Mining Corporation in 1981 with open pit and heap leaching operations exploiting copper oxide ore commencing in 1993. The operation was purchased by Straits Resources Ltd in 1998 who continued heap leaching operations for their entire tenure. Aditya Birla Minerals Ltd acquired Nifty in 2003 with open pit operations ceasing in 2006 and heap leaching operations discontinued during the first quarter of 2009 leaving approximately 17Mt of partially leached material on the pads. Since that time, Nifty has operated entirely as an underground mining operation producing a copper concentrate in a separate dedicated flotation circuit.

More than 714,000t of copper metal was produced by the previous operations at Nifty up to 2019. Much of the information outlined below has been drawn from the historic production activities and incorporated into the new MRE.

Additional Information - ASX Listing Rules 5.8

Geology and Geological Interpretation

The Nifty sediment-hosted copper deposit is hosted within the Neoproterozoic sub-greenschist facies of the Paterson Orogen, some 330 km southeast of Port Hedland, 200km east-southeast of Marble Bar and 65km west of Telfer in Western Australia.

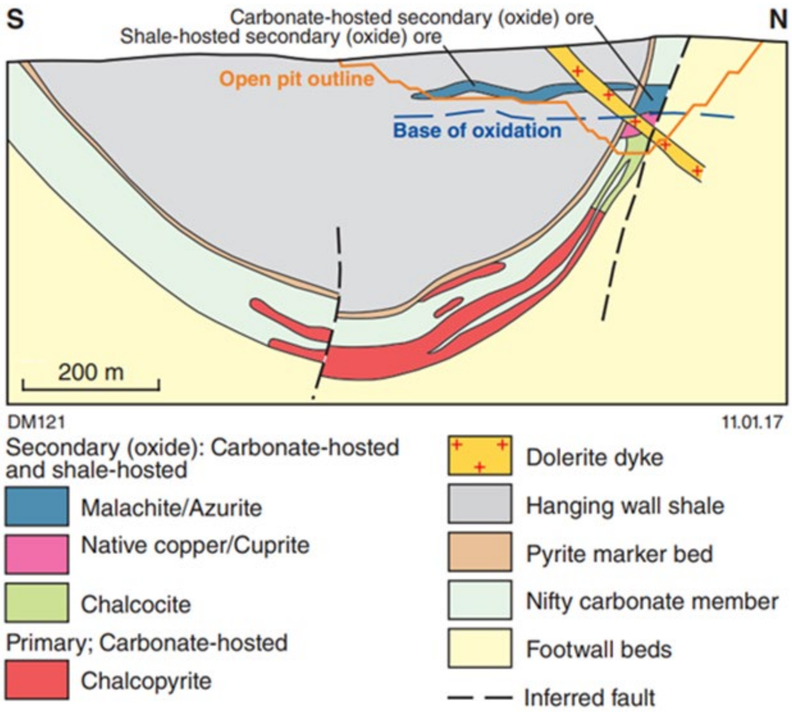
The northwest trending Paterson Orogen is greater than 1,000km long by 150km to 200km wide and fringes the north-eastern margin of the Archean to Paleoproterozoic Pilbara Craton, and merges with the Musgrave Orogen to the southeast. The Paterson Orogen is composed of two main elements, the Paleo- to early Mesoproterozoic metamorphosed igneous and sedimentary rocks of the Rudall Complex, and the unconformably overlying (approximately 9 to 13km thick) 850 to 824Ma Yeneena Supergroup of the >24,000km^2 Neoproterozoic Yeneena Basin.

The Nifty deposit had a pre-mining global resource of approximately 100Mt at 1.7% Cu (0.5% Cu cut-off). Copper occurred/s as both supergene oxide, sulphide and transition mineralisation to a depth of approximately 300m and as stratabound hypogene sulphides hosted by carbonaceous and dolomitic shales principally within the Nifty carbonate member, to a depth of approximately 600m.

The Nifty copper deposit is a structurally and lithologically controlled stratabound body within the Nifty Syncline, which strikes approximately southeast-northwest and plunges at about 6-12 degrees to the southeast.

The massive, disseminated and vein-style copper mineralisation occurs as a structurally controlled, chalcopyrite-quartz-dolomite replacement of carbonaceous and dolomitic shale within the folded sequence. The copper sulphide mineralisation is largely confined to the keel of the syncline and the northern limb.

Figure 1: Schematic cross-section through the Nifty Syncline



Drilling Techniques

The Nifty deposit has been drilled and sampled using several techniques but only the diamond and reverse circulation drilling results were used for mineral estimation purposes. Holes have been drilled both from surface and from underground and on variable spacings along and across the strike of the deposit.

Approximately 284,000m have been drilled within the immediate vicinity of the deposit and in general, the orientation of the drilling was appropriate to the strike and dip of the mineralisation

Sampling and Sub-Sampling Techniques

All core for analysis was half-cored using a mechanical saw and RC chip samples were collected via a cyclone which was cleaned with air blasts between samples.

Field sub-sampling for chip samples and the cutting of core samples was according to industry standard practice as also were the procedures adopted in the on and off-site laboratories.

Classification

The criteria used to categorise the Mineral Resources included the robustness of the input data, the confidence in the geological interpretation including the predictability of both structures and grades within the mineralised zones, the distance from data, the amount of data available for block estimates within the respective mineralised zones and kriging efficiencies for the estimated grades within the interpolated blocks. The following table lists the data ranges for each criteria associated with the classification into Measured, Indicated and Inferred Resources.

Table 2: Classification Criteria

Classification Parameter	Measured	Indicated	Inferred	Not Classified (Interpolated)
Slope of Regression	>0.75	0.6-0.75	0.52-0.6	<0.52
Kriging Variance	<0.5	0.5 - 0.7	0.7 – 0.85	>0.85
Actual Distance to closest point	<20	20 - 40	40 - 50	>50
Number of points used for the estimate	18	14 - 18	6 - 14	<6

Sample Analysis

Depending on the laboratory, multi-element assays were completed using various methods including:

- ME-ICP61 four acid digest using a 0.2g sample with an ICPAES finish; over limit results (>1% Cu) re-analysed using the ME-OG62 method, subjecting a 0.4g sample to a four-acid digest with an ICPAES finish.
- Four-acid digest using a 0.2g sample with an ICP-OES finish; over limit results (>1% Cu) re-assayed using an ore grade four acid digestion of 0.2g sample, and an AAS finish.
- On-site laboratory testing involved a fusion XRF15C method.

Estimation Methodology

The grade was estimated using ordinary kriging by individual sequence member within the four structural domains of the deposit. The geostatistical assessment of the controlling variograms and the grade estimation was carried out for each stratigraphic unit within each structural domain.

Density was assigned by lithology and grade range. The composites were created within each unit and input to the grade estimation was restricted to those composites which were within the unit being estimated.

No top-cuts were applied to the composites. A reduced search ellipse approach using half the first search ellipse distance was used for grades >30% Cu.

Estimated blocks were informed in a three-step strategy using GEOVIA GEMS software.

Drillhole intersections within the mineralised body were defined and then used to flag the appropriate sections of the drillhole database tables for compositing purposes.

Drillholes were subsequently composited to 1m intervals to allow for grade estimation and in all aspects of the resource estimation, the factual and interpreted geology was used to guide the development of the interpretation and estimation.

Cut-off Grades

The resource reporting cut-off grade is 0.75% Cu for the sulphide resource and 0.4% Cu for the oxide resource and is in keeping with past resource estimates for direct comparison purposes. The cut-off grades will be reviewed as part of the current Heap leach Restart Study.

Mining and Metallurgical Methods

The operation is currently transitioning from a care and maintenance regime into an open pit mining re-start.

Past mining of the Nifty deposit was by open pit and by underground methods. In the first phase of the production restart, Cyprium is planning to transition back into open pit mining with the production of copper metal via heap leach, SX-EW processing technologies following a refurbishment of the existing facility.

A fully functioning 2.8Mtpa flotation concentrator is located on site in a care and maintenance state and can treat the deeper sulphide mineralisation. Investigation into a restart to this facility will be central to the second phase of the operational restart studies at a future time (yet to be determined).

MRE Comparison

A comparison between the current November 2021 MRE with the previously published December 2019 estimate is provided in the following table (Table 3).

Table 3: MRE Comparison

Owner	Ore Source	Cut-Off Grade	Measured			Indicated			Inferred			Total		
		%Cu	Tonnes	Grade	Metal	Tonnes	Grade	Metal	Tonnes	Grade	Metal	Tonnes	Grade	Metal
			Mt	%Cu	t Cu	Mt	%Cu	t Cu	Mt	%Cu	t Cu	Mt	%Cu	t Cu
MLX	Oxide	0.40	1.43	0.91	13,000	1.22	0.86	10,000	1.68	0.83	14,000	4.33	0.86	37,000
CYM	Oxide		7.0	1.2	79,700	3.1	1.1	35,600	1.9	1.1	20,100	11.9	1.1	135,500
MLX	Sulphide	0.75	25.09	1.70	426,700	7.46	1.32	98,400	7.10	1.03	73,400	39.66	1.51	598,500
CYM	Sulphide		19.6	1.8	351,200	9.2	1.8	161,900	5.1	1.6	76,900	33.9	1.8	596,700
MLX	**TOTAL**		**26.52**	**1.66**	**439,700**	**8.68**	**1.25**	**108,400**	**8.78**	**1.00**	**87,400**	**43.99**	**1.44**	**635,500**
CYM	**TOTAL**		**26.5**	**1.6**	**431,000**	**12.3**	**1.6**	**197,500**	**7.0**	**1.5**	**97,100**	**45.9**	**1.6**	**732,200**

CYM = Cyprium Metals Limited November 2021 estimate
MLX = Metals X Limited (previous owners of the deposit) 31 December 2019 estimate
The Heap Leach Oxide quoted by MLX in the 31 December 2019 estimate has been removed and is no longer quoted by CYM

In an overall sense, the local differences can be attributed to the following factors (not in order of importance):

- The November 2021 MRE has been derived from all available assay information, allowing for potential enhanced grade continuity both along and across strike of the known mineralisation.
- A future open pit mining operation has provided for the re-inclusion of the material previously classified as sterilised to an underground operation and described locally as the "subsidence zone".
- The increase in the oxide resource in the November 2021 MRE is partially due to a reclassification of the chalcocite mineralisation from the December 2019 estimate, where it was previously included as part of the sulphide resource. In this estimate, potential chalcocite mineralisation is

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considered as heap leachable "transitional" material and is included as part of the oxide (heap leachable) resource.

- The grade estimates were found to be over-smoothed in past resource estimates compared to the input data. The previous estimation block size appeared too large, and the maximum number of informing samples were too high, all of which have contributed to an over-smoothing (downwards) of historic estimates.
- Upon inspection, there were no high-grade outliers in the data, and most of the very high copper grades are largely confined to within the chalcocite zone where high tenor copper minerals are commonplace. No top-cuts were applied to the input data; and the range of influence of the high-grade assays was conservatively restricted within the search ellipse during grade interpolation.
- Higher average grades in this estimate are validated by swath plots which display good correlation between input and output data.
- The increase in average grades has a direct effect on the tonnage estimates, as density is defined by algorithms based on copper grade. An increase in copper grade results in marginally increased density estimates and this has in turn resulted in a similar magnitude increase in some modelled zones.

Competent Persons

The information in this report that relates to the estimation and reporting of the Nifty Mineral Resource estimate dated 16 November 2021 is an accurate representation of the recent work completed by CSA Global Pty Ltd that has been reviewed and compiled by Mr. Terry Burns who is a Fellow and Chartered Professional of the Australasian Institute of Mining and Metallurgy (107527). Mr. Burns is currently the Study Manager for the Nifty Restart on behalf of Cyprium Metals Limited, in which he is also a shareholder. Mr. Burns has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person (CP). Ms Felicity Hughes has compiled the work for CSA Global and is an Associate of CSA Global Pty Ltd and a Member of the Australasian Institute of Mining and Metallurgy (106498). Ms. Hughes has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she is undertaking to qualify as a Competent Person (CP). Ms. Hughes and Mr. Burns both consent to the inclusion in the report of the matters based on this information in the form and context in which it appears.

This ASX announcement was approved and authorised by the Board on Cyprium Metals Limited.

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About Cyprium Metals Limited

Cyprium Metals Limited (ASX: CYM) is an ASX listed company with copper projects in Australia. The Company has a highly credentialed management team that is experienced in successfully developing sulphide heap leach copper projects in challenging locations. The Company's strategy is to acquire, develop and operate mineral resource projects in Australia which are optimised by innovative processing solutions to produce copper metal on-site to maximise value.

The Company has projects in the Murchison and Paterson regions of Western Australia, that is host to a number of base metals deposits with copper and gold mineralisation.

Paterson Copper Projects

This portfolio of copper projects comprises the Nifty Copper Mine, Maroochydore Copper Project and Paterson Exploration Project.

The Nifty Copper Mine ("Nifty") is located on the western edge of the Great Sandy Desert in the north-eastern Pilbara region of Western Australia, approximately 350km southeast of Port Hedland. Nifty contains a Mineral Resources of 732,000 tonnes of contained copper. Cyprium is focussed on a heap leach SX-EW operation to retreat the current heap leach pads as well as open pit oxide and transitional material. Studies will investigate the potential restart of the copper concentrator to treat open pit sulphide material.

The Maroochydore deposit is located ~85km southeast of Nifty and includes a shallow 2012 JORC Mineral Resources of 486,000 tonnes of contained copper.

An exploration earn-in joint venture has been entered into with IGO on ~2,400km^2 of the Paterson Exploration Project. Under the agreement, IGO is to sole fund A$32 million of exploration activities over 6.5 years to earn a 70% interest in the Paterson Exploration Project, including a minimum expenditure of A$11 million over the first 3.5 years. Upon earning a 70% interest, the Joint Venture will form and IGO will free-carry Paterson Copper to the completion of a Pre-feasibility Study (PFS) on a new mineral discovery.

Murchison Copper-Gold Projects

Cyprium has an 80% attributable interest in a joint venture with Musgrave Minerals Limited (ASX: MGV) at the Cue Copper-Gold Project, which is located ~20km to the east of Cue in Western Australia. Cyprium will free-carry the Cue Copper Project to the completion of a definitive feasibility Study (DFS). The Cue Copper-Gold Project includes the Hollandaire Copper-Gold Mineral Resources of 51,500 tonnes contained copper, which is open at depth. Metallurgical test-work has been undertaken to determine the optimal copper extraction methodology, which resulted in rapid leaching times (refer to 9 March 2020 CYM announcement, "*Copper Metal Plated*", https://cypriummetals.com/copper-metal-plated/).

The Nanadie Well Project is located ~650km northeast of Perth and ~75km southeast of Meekatharra in the Murchison District of Western Australia, within mining lease M51/887.

The Cue and Nanadie Well Copper-Gold projects are included in an ongoing scoping study, to determine the parameters required to develop a copper project in the region, which provides direction for resource expansion work.

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JORC Code, 2012 Edition – Table 1

Nifty Copper Deposit

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (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 was coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• The deposit has been drilled and sampled using several techniques; only diamond and reverse circulation drilling results have been used for mineral estimation. Holes have been drilled both from surface and from underground and was on variable spacings along and across strike. • Approximately 284,000 metres have been drilled within the immediate vicinity of the Nifty deposit. Where possible, holes were drilled to intersect the synclinal east plunge mineralization perpendicularly. • The drilling programs have been ongoing since initial discovery to both expand the mineralisation and have provided control for mining. The hole collars were consistently surveyed by company employees or contractors with the orientation recorded, and down holes surveys were recorded using appropriate equipment. • The diamond core was logged for lithology and other geological features. Diamond core varied from HQ to NQ in diameter and mineralised intervals and adjacent locations were sampled by cutting the core in 1/2 based on contacts of lithology and other geological features. • The RC samples were collected from the cyclone of the rig and split at site to approximate 2 to 3kg weight. The preparation and analysis were undertaken at commercial laboratories with WASO/IEC 17025 accreditation, or at an onsite laboratory contracted to an accredited testing service. • Depending on the laboratory, assays were completed using various methods including: o ME-ICP61 four acid digest using a 0.2g sample with an ICPAES finish; over limit results (>1% Cu) re-analysed using the ME-OG62 method, subjecting a 0.4g sample to a four-acid digest with an ICPAES finish. o Four-acid digest using a 0.2g sample with an ICP-OES finish; over limit results (>1% Cu) re-assayed using an ore grade four acid digestion of 0.2g sample, and an AAS finish. o On-site laboratory testing involved a fusion XRF15C method.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc)*	• The drilling was completed using a combination of surface and underground drilling. In general, the orientation of the drilling was appropriate given the strike and dip of the

Criteria	JORC Code explanation	Commentary
	and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core was oriented and if so, by what method, etc).	mineralisation.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• The core recovery was recorded in the database and in most instances was more than 95% within the fresh/sulphide zones. Core recovery was assessed by measuring core length against core run. • There was no record located pertaining to the quantity (weight) of RC chips collected per sample length. • The ground conditions in the mineralised zone are competent. In areas of less competent material core return was maximised by controlling drill speed. In the case of RC samples areas of less competent material were identified in the log. • Whilst no assessment has been reported the competency of the material sampled would tend to preclude any potential issue of sampling bias.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging was qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• The routine logging of core and chips informed the general geologic features including stratigraphy, lithology, mineralisation, and alteration. For most holes this information was sufficient and appropriate to apply mineralisation constraints. Some core drilling was orientated and structural measurements of bedding, joints, veins etc. as well as fracture densities were completed. • Geological logging recorded summary and detailed stratigraphy, lithology, mineralisation content and alteration, some angle to core axis information, vein type, incidence and frequency and magnetic content. • The entire length of all holes, apart from surface casing, was logged.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	• All core to be sampled was half-cored using a mechanical saw. It was not known if the core was consistently taken from the same side of the stick. • RC chip samples were collected via a cyclone which was cleaned with air blast between samples. • The samples were riffled to collect between 2 and 3kg. Most samples were dry with any moisture noted in the logs. • Field sub-sampling for chip samples appeared to be appropriate as was the use of core cutting equipment for the submitted core. Procedures adopted in the laboratories were industry standard practices including those used at the mine site facility. • In the field, riffles were cleaned between sampling using compressed air. The diamond

Criteria	JORC Code explanation	Commentary
	• *Measures taken to ensure that the sampling was representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	cutting equipment was cleaned during the process using water. All laboratories adopted appropriate industry best practices to reduce sample size homogeneously to the required particle size. • No field duplicate information was observed in the historic databases.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique was considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• The assay techniques used are considered appropriate for the determination of the level of mineralisation in the sample. • No geophysical tools were utilised to ascertain grade. • Standard and Blanks were included with all samples sent for analysis in the rate of between 1 in 20 and 1 in 50. The most recent reporting covering most holes used in the estimate provide support for the quality of the Cu assays. • No field duplicate assay information was observed in the databases; Metals X QAQC protocol documentation implied a series of check samples from coarse rejects was implemented as a check on sample preparation, but no information on the results was observed.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• The extensive historical data set has been reviewed many times over nearly 30 years by several data management consultants. Intersections within the mineralisation were confirmed. • No twinned holes have been observed but there is a significant amount of closely spaced supportive drilling results. • Cyprium is adopting established data entry, verification, storage and documentation protocols commensurate with past production.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Collar positions have been surveyed on a known local grid with demonstrated control. • The orientation and dip at the collars were checked and down hole recording of azimuth and dip taken at 30m intervals on most occasions using appropriate equipment. • The regional grid is GDA94 Zone 50; drilling was laid out on the local grid. • Topographic control is from surface survey.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution was sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Historical surface and underground drillholes were drilled on a 40m x 20m grid to specifically target lithological and mineralisation sequence definition. • The sampling reflected the geological conditions. For mineral resource estimation, a 1m composite length was chosen given that this was the dominant sample length in the dataset.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this was known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures was considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Where possible, drillholes were planned to intersect the synclinal east plunge mineralization perpendicularly. • No sampling bias was considered to have been introduced.
Sample security	• *The measures taken to ensure sample security.*	• Diamond core trays and RC chip trays, once collected and numbered, have been stored in the Nifty site core yard and shed.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Over several years, database management companies have audited the drill hole databases and found them to be representative of the information contained.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Nifty deposit is situated on mining lease M271/SA. • On 10 February 2021 Cyprium Metals Ltd announced they had entered into a share sale agreement with Metals X Ltd to acquire its 100% owned entity Paterson Copper Pty Ltd, the owner of the Nifty Copper mine.

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• WMC Resources Ltd discovered Nifty in 1980 by using regional ironstone sampling and reconnaissance geology. Malachite staining of an outcrop and Cu-anomalous ironstones from dune swale reconnaissance sampling were the initial indicators. This was followed up by lag sampling on a 500 x 50m grid that detected a 2.5 x 1.5km Cu-Pb anomaly. Secondary Cu mineralisation was intersected in percussion drilling in mid-1981, with high grade primary ore (20.8m at 3.8% Cu) discovered in 1983. WMC commenced open pit mining of the secondary oxide ore in 1992 and continued mining until September 1998 when Nifty was sold to Straits Resources. • The project was subsequently purchased from Straits Resources by Aditya Birla Minerals Ltd in 2003. • Open pit mining ceased in June 2006. • Copper extraction using heap leaching ceased in January 2009. • Underground mining of the primary (chalcopyrite) mineralisation started in 2006. • The project was acquired by Metals X from Aditya Birla in 2016 in an on-market takeover of the ASX listed company. • Underground mining ceased in November 2019 and the Nifty Copper mine was placed in Care and Maintenance.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Nifty deposit is hosted within the folded late-Proterozoic Broadhurst Formation which is part of the Yeneena Group. The Broadhurst Formation is between 1000 m to 2000 m thick and consists of a stacked series of carbonaceous shales, turbiditic sandstones, dolomite, and limestone. • Structurally, the dominant feature is the Nifty Syncline which strikes approximately southeast-northwest and plunges at about 6-12 degrees to the southeast. The strata-bound copper mineralisation occurs as a structurally controlled, chalcopyrite-quartz-dolomite replacement of carbonaceous and dolomitic shale within the folded sequence. The bulk of the primary mineralisation which was recently being mined is largely hosted within the keel and northern limb of the Syncline
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*	• No exploration results are reported as part of this release and any results relating to the deposit have been released previously.

Criteria	JORC Code explanation	Commentary
	○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information was justified on the basis that the information was not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this was the case.*	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No exploration results are reported as part of this release and any results relating to the deposit have been released previously.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle was known, its nature should be reported.* • *If it was 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').*	• No exploration results are reported as part of this release and any results relating to the deposit have been released previously.

Criteria	JORC Code explanation	Commentary
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.*	• No exploration results are reported as part of this release and any results relating to the deposit have been released previously.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results was not practicable, representative reporting of both low and high grades and/or widths should be practiced, avoiding misleading reporting of Exploration Results.*	• No exploration results are reported as part of this release and any results relating to the deposit have been released previously.
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.*	• No exploration results are reported as part of this release and any results relating to the deposit have been released previously.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information was not commercially sensitive.*	• The Nifty mineral resource currently remains open to the east. • Open pit re-start works. • Validation drilling in areas of potential economic mineralisation. • Infill drilling in areas of data paucity to increase resource confidence and resultant classifications. • Validation of the underground void model.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Cyprium has inherited the Nifty databases which historically have undergone rigorous checks by accredited database specialists through almost 30 years of operation. • Cyprium plans to combine the relevant oxide and sulphide drillhole databases into a single database and model.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this was the case.*	• The Competent Person signing off on this mineral resource estimate has made several visits to Nifty site in 2021. • The Competent Person signing off as having compiled and reviewed this work was previously Technical Services Manager at Nifty 1994-96 and has visited the site many times in 2020-21.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The confidence in the geological interpretation comes from thirty years' history of open pit and underground mining, and the closely spaced drill and other sample information. • All available historical data was reviewed and interrogated by Cyprium, and where appropriate, used for the resource estimation. The assumption of historical QAQC has been implied with respect to data quality. • The application of hard boundaries to reflect the position of the mineralised sequence is supported by past mining and drilling observations. • The hard boundaries are used to constrain the mineralisation which exhibits different characteristics depending on within which sequence member it is located. • The sequence units are subject to vertical and horizontal dimension changes along and across strike and in thickness. Mineralisation occurs as either disseminated or massive within the Sequence.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The Nifty Cu deposit occurs over a 1,200m down plunge distance; units vary individually between from 0m to 30m in true thickness. The limbs of the sequence are variously mineralised and up to 400m in vertical extent.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a*	• The grade was estimated using ordinary kriging by individual sequence member within the four structural domains. The geo-statistical assessment of the controlling variograms and the grade estimation was carried out for each stratigraphic unit within each structural domain. • Density was assigned by lithological and grade range. The composites were created within each unit and input to the grade estimation was restricted to those composites which were

Criteria	JORC Code explanation	Commentary
	description of computer software and parameters used. • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	within the unit being estimated. • No top-cuts were applied to the composites. A reduced search ellipse approach using half the first search ellipse distance was used for grades >30% Cu. • Estimated blocks were informed a three-step strategy. • The 3D Leapfrog geological models constructed by Metals X were used for stratigraphic domaining. • Grade estimation was completed using GEOVIA GEMS software. • Drillhole intersections within the mineralised body were defined and then used to flag the appropriate sections of the drillhole database tables for compositing purposes. • Drillholes were subsequently composited to 1m intervals to allow for grade estimation. In all aspects of resource estimation, the factual and interpreted geology was used to guide the development of the interpretation. • There are no by-products • There are no deleterious elements. • Drillhole grades were initially visually compared with cell model grades. Domain drill hole and block model statistics were then compared. Swath plots were also created to compare drillhole grades with block model grades for easting and northing slices throughout the deposit. The block model reflected the tenor of the grades in the drill hole samples both globally and locally.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages were estimated using density determined by copper content.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• Lithological boundaries are used to define sequence units with statistical grade assessment used for confirmation. • The resource reporting cut-off grade is 0.75% Cu for the sulphide resource and 0.4% Cu for the oxide, in keeping with past resource determinations for direct comparison purposes.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal*	• The operation is currently under a Care and Maintenance regime.

Criteria	JORC Code explanation	Commentary
	(or, if applicable, external) mining dilution. It was always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this was the case, this should be reported with an explanation of the basis of the mining assumptions made.	• Past mining of this deposit was by open pit and by underground long hole open stoping. • Cyprium will be transitioning back into an open pit and heap leach, SX-EW (Solvent Extraction – Electrowinning) processing methodology during 2022, with first copper production expected in Q1 2023.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It was always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this was the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• The operation is currently under a Care and Maintenance regime. • Nifty previously operated as a heap leach SX-EW Cu operation from 1993-2009. • Ore mined from underground was processed on site to produce Cu concentrate. • Cyprium plans to reopen operations and process ore via heap leaching and SX-EW to produce Cu cathode. • The SX-EW method is considered suitable for the remnant heap leachable Cu mineralisation initially mined via a restarted open pit operation.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It was always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• Cyprium operates in accordance with all environmental conditions set down as conditions for grant of the respective mining leases

Criteria	JORC Code explanation	Commentary
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vughs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Historically, density was applied based on oxidation intensity, stratigraphic unit and Cu grade (for copper grades in excess of 1% copper, a regressed density value was calculated based on linear fit to the slope of the graph). • This method was adopted for the estimate of tonnage in the latest resource to facilitate a direct comparison with the 2020 estimate. • Density was assigned based on Cu grades within the various regolith domains.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The criteria used to categorise the Mineral Resources included the robustness of the input data, the confidence in the geological interpretation including the predictability of both structures and grades within the mineralised zones, the distance from data, the amount of data available for block estimates within the respective mineralised zones and kriging efficiencies for the estimated grades within the interpolated blocks. • The estimated grade correlates well with the input data given the nature of the mineralisation. • The Mineral Resource estimate reflects the Competent Person's understanding of the deposit.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The 2019 Mineral Resource Estimate was externally audited by Cube Consulting who found no fatal flaws and deemed the estimation 'fit for purpose' for global mine-planning. The 2020 Mineral Resource Estimate followed a similar methodology. • The main goal for the latest resource by Cyprium has been to combine the historical oxide and sulphide mineral resource estimates into the one model. • To make direct comparisons, Cyprium has followed similar methods to the 2019 resource estimation, whilst noting the recommendations from the audit by Cube Consulting for future resource estimates.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure*	• The latest "combined" oxide and sulphide mineral resources are considered robust, and representative on both a global and local scale. • Confidence is derived from historical mining and inherited and well-documented

Criteria	JORC Code explanation	Commentary
	deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach was not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	understanding of the deposit geology and mineralisation controls. • The statement relates to global estimates of tonnes and grade.