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10 February 2021 **ASX ANNOUNCEMENT**

Transformational Acquisition of Highly Attractive Copper Portfolio

Cyprium Strategy to Focus on Heap Leach SX-EW Copper Production

TRANSACTION HIGHLIGHTS

- **Cyprium to acquire Metals X's portfolio of Western Australian Copper Assets:**
  - **Nifty Copper Mine (currently in care and maintenance)**
  - **Maroochydore Copper Project**
  - **Paterson Exploration Project**
- **Nifty and Maroochydore contain +1.1 Mt copper Mineral Resources (2012 JORC compliant)[1] with substantial growth upside**
- **Nifty offers a near-term open pit oxide heap leach production opportunity**
  - **Includes extensive existing mine and site infrastructure**
- **Maroochydore technical studies to be updated - presents a substantial oxide copper development project opportunity**
- **Large, highly prospective +2,800km^2 of exploration tenements in the Paterson Province, adjacent to Nifty processing infrastructure**
  - **Regional exploration being accelerated through A$32 million farm-in & joint venture with IGO Limited[2] covering ~2,400km^2**
- **Cyprium well placed to capitalise on strong positive global copper fundamentals**
  - **Acquisition cost equates to ~$0.03 per pound of copper in resource**
- **Firm commitments received for A$90 million placement at A$0.20 per share**
- **Transaction rapidly advances several of Cyprium's previously stated objectives:**
  - **Build a mid-tier Australian copper mining business by acquiring a portfolio of projects with existing copper resources**
  - **Leverage management expertise - proven copper track record**
  - **Maintain flexibility to pursue further growth opportunities**

Cyprium Metals Limited (ASX:CYM) ("**Cyprium**" or the "**Company**") is pleased to advise that it has entered into a Share Sale Agreement ("**SSA**") with Metals X Limited (ASX:MLX) ("**Metals X**") to acquire its 100% owned entity Paterson Copper Pty Ltd ("**Paterson Copper**"), the owner of the Nifty Copper Mine, Maroochydore Copper Project and the Paterson Exploration Project, which includes the farm-in agreement with IGO Limited ("**IGO**") (together "**Copper Assets**") (the "**Transaction**").

[1] Metals X ASX announcements: 10 March 2020, *Nifty Copper Mine Resource Update* and 18 August 2016, *Annual Update of Mineral Resources and Ore Reserves*.

[2] Metals X ASX announcement: 11 June 2020, *$32M Paterson Province Exploration Joint Venture with IGO Limited*.

This portfolio of copper projects is located in the highly prospective Paterson Province of Western Australia.

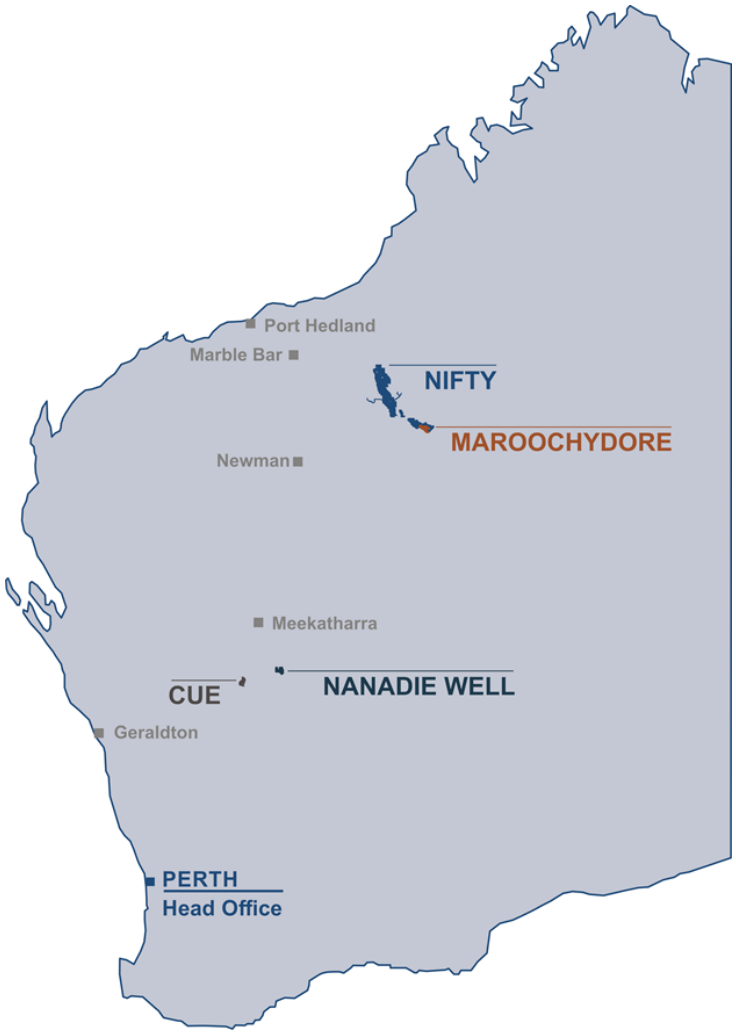

Figure 1 | Location of Nifty Copper Mine and Maroochydore Project

Cyprium has agreed to pay Metals X a total A$60 million upon completion of the Transaction ("**Completion**"), comprising:

- cash payment of A$24 million (inclusive of the A$1 million deposit already paid[3]) ("**Upfront Amount**")[4]; and
- convertible notes with a face value totalling A$36 million ("**Convertible Notes**").

Cyprium will also replace the financial assurances relating to Nifty which equate to ~A$6.5 million, with effect from Completion.

Cyprium has received binding commitments to fund the Transaction through a A$90 million placement to professional and sophisticated investors ("**Placement**").

Completion of the Transaction and Placement is subject to shareholder approval which is currently expected to occur on or before 31 March 2021. A summary of the key terms of the SSA is included below.

[3] The deposit is only refundable to Cyprium if the key contracts related Condition Precedent in the SSA is not fulfilled, or if Metals X fails to meet its obligations for Completion of the Transaction.

[4] The Upfront Amount is subject to a post-completion working capital adjustment.

Commenting on the acquisition, Cyprium Executive Director Barry Cahill said:

"This is a truly transformational transaction for Cyprium which provides us with an outstanding portfolio of copper projects.

We have regularly ranked Nifty at the top of our Australia copper project acquisition target list and are delighted to have secured this as part of our quality suite of copper development projects.

Nifty and Maroochydore are a perfect fit for the skill set of our management team, who have a track record of creating value and producing copper, as most recently demonstrated with Finders Resources at the Wetar copper project.

With favourable market fundamentals for copper, the acquisition of this portfolio represents an outstanding opportunity to generate significant value by securing more than 1.1Mt of contained copper at Nifty and Maroochydore, including significant infrastructure, as well as the extensive Paterson Exploration JV with IGO in the highly prospective Paterson Province.

We are excited about the opportunity to execute our simplified development plan which consists of an open pit mining operation, feeding a heap leach and SX-EW processing flowsheet. Cash flows generated are intended to be utilised towards the development of the Maroochydore and Cyprium's existing Murchison Copper-Gold projects."

Overview of the Copper Assets

The Nifty Copper Mine, Maroochydore Copper Project and the Paterson Exploration Project (which includes the farm-in agreement with IGO), are located in the northeast Pilbara region of Western Australia, approximately 330km east-southeast of Port Hedland.

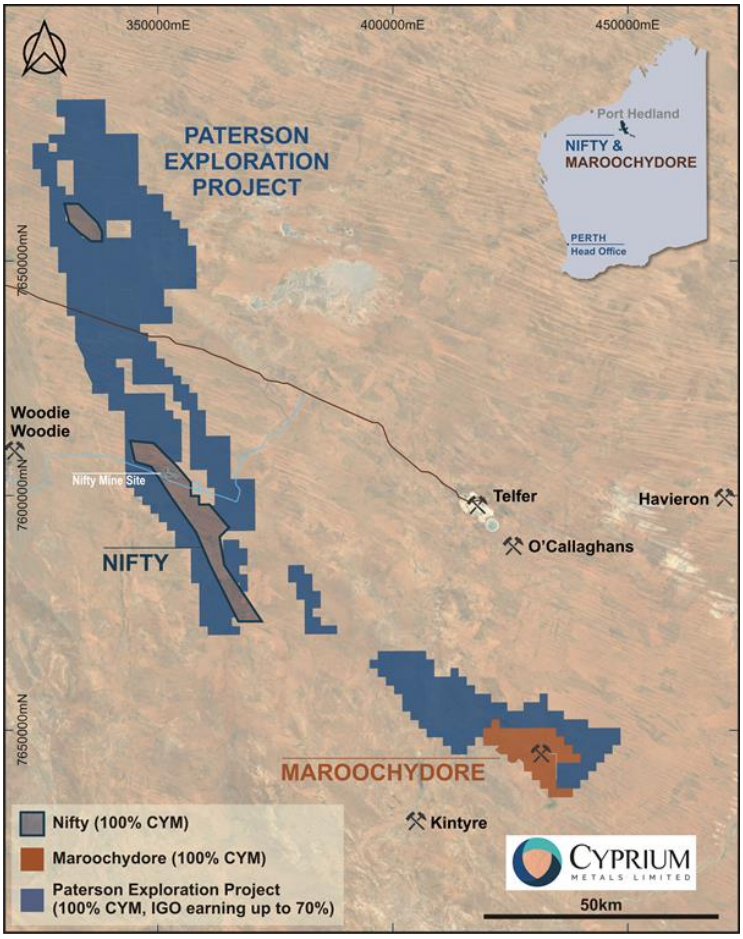

Figure 2 | Location of Nifty Copper Mine and Maroochydore Project

Nifty Copper Mine

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 350 km southeast of Port Hedland. Nifty was initially discovered by WMC and commenced operation in 1993 as an open pit oxide copper mine with processing via heap leaching and solvent extraction-electrowinning ("**SX/EW**") recovery to produce copper cathodes. From 2006, it transitioned to an underground sulphide mine with processing via standard flotation to produce a copper concentrate at rates of over 50,000 tonnes of contained copper per year. Between commencement of the oxide operation and 26 November 2019, when the mine was placed onto care and maintenance ("**C&M**)[5], Nifty has produced more than 700,000 tonnes of copper metal.

The deposit is still ranked in the top twenty copper resources by copper tonnes in Australia, with considerable potential to increase further.

Nifty retains a 2012 JORC compliant Mineral Resources of 658,500 tonnes contained copper[6], via an open pit and underground mine, with substantial infrastructure including:

- 2.8 Mtpa sulphide concentrator (in care and maintenance since November 2019).
- 25 ktpa copper cathode heap leach SX/EW facility.
- 21 MW gas turbine power station.
- Water supply and reticulation systems including bore field operation.
- Mine village with capacity exceeding 400 persons.
- Jet-capable all-weather airstrip.

During the C&M and the Metals X strategic review process, surface infrastructure including the power station, processing plant and camp have been maintained in a production-ready status.

Nifty Scoping Study

On 11 June 2020, Metals X prepared and released to ASX a scoping study ("**Scoping Study**") on Nifty[7] that returned positive results on mining the large copper sulphide resource through an expansion to the historical oxide open pit, using the existing processing plant and site infrastructure. The Scoping Study supported further reviews to be conducted for the recommencement of mining of the oxide open pit and processing via heap leaching and SX/EW recovery, to produce copper cathodes.

Several opportunities were identified by Metals X for future studies including assessing the impact of the additional mineralisation defined by the 31 December 2019 Mineral Resource estimate. Preliminary analysis suggests this may materially extend mine life and improve project economics. Several resource definition targets were identified that have the potential to grow the Mineral Resource base, and to further optimise the mining schedule.

Cyprium intends to immediately prioritise completing its development plans, which takes into consideration the work completed in the Scoping Study, with an aim of establishing an efficient long-term producing copper mine. Initially, this will involve a drill out of near surface mineralisation, completion of design and refurbishment estimates for onsite infrastructure, including the required approvals to recommence operations.

Cyprium will commence with a heap leach SX-EW operation to retreat the current heap leach pads as well as open pit oxide and transitional material and then follow with the restart of the copper concentrator to treat open pit sulphide material.

[5] Metals X ASX Announcement: 26 November 2019, *Suspension of Operations at Nifty Copper Mine*.
[6] Metals X ASX announcement: 10 March 2020, *Nifty Copper Mine Resource Update*.
[7] Metals X ASX announcement: 11 June 2020, *Nifty Scoping Study Identifies Long Life Open Pit*.

Concurrently with the recommencement of SX-EW operations, Cyprium will be undertaking comprehensive metallurgical test work to optimise the processing of the open pit sulphide mineral resource.

Maroochydore Copper Project

The nearby Maroochydore deposit is located ~85km south east of Nifty, includes a shallow 2012 JORC compliant Mineral Resources of 486,000 tonnes contained Copper, consisting of a significant oxide Mineral Resource of 43.5 Mt at 0.91% Copper and a primary sulphide Mineral Resource of 5.43 Mt at 1.66% Copper[8]. The resource is in the top thirty copper resources by copper tonnes in Australia.

A number of drilling and geophysical programmes have been completed at Maroochydore, together with metallurgical test work programmes, whilst the primary copper sulphide mineralisation remains open along-strike and down-dip.

Cyprium intends to commence drilling and a metallurgical test work program with the emphasis to unlock the over 400,000 tonnes of copper potential. Whilst the initial development focus will be to support a heap leach SX-EW option, the Company's test work program will be used to optimise the processing flowsheet, unlocking the project's full potential.

Paterson Exploration Project

The Paterson Exploration Project covers over ~2,800km^2 which is highly prospective and is host to a number of substantial gold, gold-copper, copper and tungsten mines and deposits, including the Telfer gold-copper mine. Recently, new significant discoveries were made by Rio Tinto at the Winu project, and by the Newcrest-Greatland Gold JV at the Havieron project, which has re-established the Paterson Province as one of the premier copper and gold exploration destinations in Australia and globally.

In mid-2020[9], Metals X announced an exploration joint venture 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 before withdrawal of A$11 million over 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.

IGO has significant exploration experience in the Paterson Province and has developed innovative targeting techniques, using large scale magneto-telluric (MT) geophysical and proprietary geochemical survey techniques, which will be applied to the highly prospective and underexplored Paterson Exploration Project tenements.

Cyprium looks forward to partnering IGO in this exciting joint venture during the initial expenditure stages.

[8] Metals X ASX announcement: 18 August 2016, *Annual Update of Mineral Resource and Ore Reserves Estimates*.
[9] Metals X ASX announcement: 11 June 2020, *$32M Paterson Province Exploration Joint Venture with IGO Limited*.

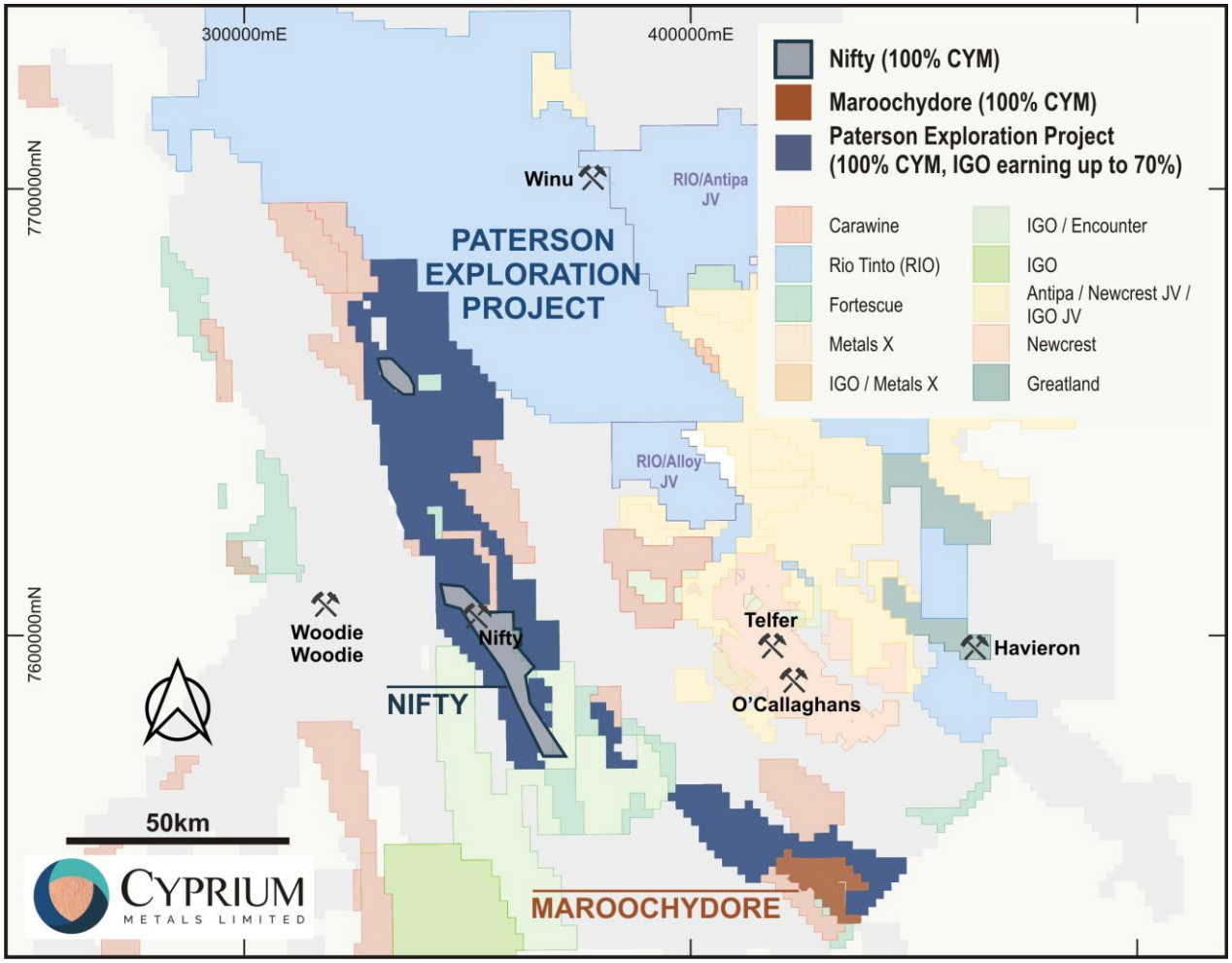

Figure 4 | Paterson Exploration Project

Summary of Commercial Terms of the Transaction

A binding SSA has been executed between Cyprium and Metals X for the 100% acquisition of the Copper Assets. The key commercial terms of the SSA, once the conditions precedent have been satisfied, give effect to the transfer of 100% of the assets, tenements, contractual rights, infrastructure, plant and equipment, mining information, and other assets associated with the Copper Assets from Metals X to Cyprium.

The key commercial terms of the SSA are:

Topic	Summary
Outline of Proposed Transaction	The Company agrees to acquire 100% of the shares on issue held by Metals X in Paterson Copper Pty Ltd ("**Paterson Copper**"). Paterson Copper is the holder of the Copper Assets which comprise: • Nifty Copper Mine; • Maroochydore Copper Project; and • Paterson Exploration Project. Completion of the Transaction ("**Completion**") will be no later than 5 Business Days after satisfaction of the Conditions Precedent ("**Completion Date**").

Topic	Summary
Consideration	The Company has agreed to acquire Paterson Copper for A$60 million payable at the Completion Date, comprising: 1. an upfront cash payment of A$24 million (inclusive of the A$1 million deposit already paid to Metals X by Cyprium ("**Deposit**")) ("**Upfront Amount**")[10]; plus 2. four (4) convertible notes with a value of A$9 million each, for an aggregate value of A$36 million ("**Convertible Notes**"). Under the terms of the Convertible Notes, Metals X will also be issued unlisted Options on the Completion Date, as defined and set out in further detail below. The Upfront Amount will be funded by the Placement to raise A$90 million. The Deposit paid by Cyprium is held in escrow, pending Completion. The Deposit may be returned to Cyprium in certain circumstances if Completion does not occur, namely if Metals X fails to satisfy its key contracts related conditions precedent under the SSA for which it is responsible or if Metals X fails to meet its obligations for Completion of the Transaction.
Convertible Notes	The Convertible Notes are to be issued by Cyprium to Metals X on the following terms: • four (4) convertible notes with a face value of A$9 million each; • 4-year maturity from the Completion Date ("**Redemption Date**"); and • annual coupon of 4% to be capitalised and paid annually. <u>Redemption</u> • To the extent all or part of the Convertible Notes are not converted or redeemed early before the Redemption Date, the Company shall pay to Metals X the principal sum and interest of the Convertible Notes on the Redemption Date. <u>Conversion on the Redemption Date</u> • On the Redemption Date**,** Metals X may elect that each Convertible Note shall be convertible into Cyprium ordinary shares ("**Shares**") (less any amounts already repaid by the Company). If elected to be converted by Metals X, the conversion price of the principal sum and interest of the Convertible Notes shall be the 20-day volume weighted average price ("**VWAP**") of the Shares on the ASX immediately prior to the Completion Date, multiplied by 1.3 (30% premium) ("**Conversion Price"**). <u>Early Redemption</u> • Within twenty business days prior to each annual anniversary from the Completion Date, the Company may elect at its discretion to redeem the full or part amount of the principal sum and interest outstanding of each Convertible Note, multiplied by 1.15 (15% premium) of the principal sum. • Within seven business days of receipt of an early redemption notice from Cyprium, Metals X can elect instead to convert the amount of the Convertible Notes proposed to be redeemed early into Shares at the Conversion Price. <u>Options Issued on Completion</u> • For every five (5) Shares that could be issued on conversion of each Convertible Note, Metals X shall on the Completion Date be issued two (2) free attaching unlisted options ("**Options**"): – the first Option is exercisable for 1 year from the Completion Date at a 15% premium to the Company's 20-day VWAP on the ASX to the business day prior to the Completion Date; and – the second Option is exercisable for 2 years from the Completion Date at a 30% premium to the Company's 20-day VWAP on the ASX to the business day prior to the Completion Date.

[10] The Upfront Amount is subject to a post-completion working capital adjustment.

Topic	Summary
	– Each Share to be issued from exercise of an Option shall include copper price adjustment factors, as follows: a) 1.1 Shares for each Option if the copper price is between US$7,000 and US$7,999.99 per tonne at the date of exercise of the Option; b) 1.2 Shares for each Option if the copper price is between US$8,000 and US$8,999.99 per tonne at the date of exercise of the Option; and c) 1.3 Shares for each Option if the copper price is above US$9,000 per tonne at the date of exercise of the Option. – All references to copper prices are to London Metals Exchange daily quoted prices. • The number of Options to be issued to Metals X on the Completion Date is to be calculated once the Conversion Price is known.
Conditions Precedent	Completion of the Transaction is subject to the following conditions precedent: • Change of control consents for key contracts. • Valid applications received by the Company under an Equity Raising of at least A$30 million ("**Equity Raising**"). • Cyprium obtaining Shareholder approval under ASX Listing Rule 7.1 to give effect to the Transaction. Other than the Equity Raising condition which has been satisfied, each condition above is to be satisfied within 60 days of the date of the SSA, being 8 April 2021 (unless otherwise agreed by the parties).
Conditions Subsequent	If conversion of any of the Convertible Notes or Options would result in the Convertible Noteholder acquiring a relevant interest in 20% or more of the Shares: • the Company must convene a general meeting to seek approval from the Shareholders of the Company in accordance with section 611 of the Corporations Act before those Convertible Notes or Options, which if converted, would cause the 20% threshold to be exceeded; and • in the meeting materials, the Company must procure that the directors unanimously recommend a vote in favour of the resolution and procure that each director declares his or her intention to vote in favour of the resolutions in respect of which they have power to vote.
Obligations Between Signing and Completion	• Cyprium management permitted site access from execution of the SSA (including to conduct any project works on the Copper Assets approved by a joint operating committee established by the parties up to Completion). • Metals X and Paterson Copper carry on the business in the usual and ordinary course. • Metals X to procure that, on or before Completion, all inter-company loans owed by Paterson Copper are repaid or otherwise discharged and extinguished in full. • Cyprium to replace Metals X with regard to: 1. financial assurances relating to Nifty which equate to A$6 million; and 2. cash-backed parent guarantees relating to commercial contracts which bonds total A$0.5 million, both with effect from Completion. • The Upfront Amount is subject to a working capital adjustment, to be prepared by the Company as at 12.00am on 31 December 2020. • Cyprium to take responsibility for all site expenditures, including ongoing care and maintenance costs, effective from 1 January 2021, subject to completion of the Transaction.
Warranties	• The SSA contains a number of warranties given by Metals X and the Company to each other which are typical for the nature of the Transaction.

Acquisition Funding

The Transaction and development of the Copper Assets is to be funded from existing cash reserves and a A$90 million Placement. The Company has received binding commitments for the Placement from professional and sophisticated investors in Australia and eligible investors in certain overseas jurisdictions.

The Placement will result in the issue of approximately 450 million fully paid ordinary shares in the Company ("**New Shares**") at an offer price of A$0.20 per Share ("**Offer Price**").

The Offer Price represents a:

- 18.4% to closing price of A$0.245 on 4 February 2021; and
- 15.2% to 5-day volume weighted average price of A$0.236 up to and including 4 February 2021[11].

The Placement is being made subject to approval by the Company's shareholders ("**Shareholders**").

The New Shares issued under the Placement will rank equally with existing Cyprium shares.

Further information on the Placement is also set out in the Appendix 3B lodged by Cyprium today.

Capital Structure

	Securities	Amount
Ordinary shares	98,569,214	
Performance rights[12]	22,000,000	
Options (ex. price $0.30, exp. 11 December 2022)	6,000,000	
Placement – New Shares	450,000,000	A$90.0 million
Ordinary shares on issue following the Placement	**548,569,214**	
Market Capitalisation (A$0.20) post-Acquisition		**A$109.7 million**
Convertible notes issued to Metals X[13]		A$36.0 million
Cash (post-Transaction)[14]		A$56.0 million
Enterprise value post-Acquisition[2]		**A$89.7 million**

Indicative Timetable

Event	Date
Trading halt	5 February 2021
Notice of General Meeting released	Mid-February 2021
General Meeting held	On or about Tuesday, 16 March 2021
Settlement of the Placement	3 business days after the General Meeting
Issue and commencement of trading of New Shares	4 business days after the General Meeting
Completion of the Transaction	On or before 31 March 2021

[11] Includes the 5 trading days up to and including 4 February 2021, the last trading day immediately prior to the announcement of this Transaction

[12] Cyprium proposes to issue 6,250,000 and 5,000,000 performance rights to Mr Barry Cahill and Mr Gary Comb respectively, subject to obtaining shareholder approval. These are excluded from the table above.

[13] For every 5 Shares that could be issued on conversion of Convertible Notes, Metals X shall on the Completion Date be issued 2 Options. The number of Shares potentially convertible under the Convertible Notes is to be calculated based on the Conversion Price.

[14] Comprises CYM's existing cash position of A$5.4 million, plus Placement proceeds minus transaction costs (incl. capital raising fees and stamp duty), A$24 million cash payment to Metals X and A$6.5 million in financial assurances.

The above timetable is indicative only and is subject to change. All dates and times are AEST.

Subject to the requirements of the Corporations Act, the ASX Listing Rules and any other applicable laws, Cyprium, in consultation with the joint lead managers, reserves the right to amend this timetable at any time. The commencement of quotation of New Shares is subject to confirmation from ASX. The information in this announcement does not constitute financial product advice and does not take into account the financial objectives, personal situation or circumstances of any shareholder. If you are in any doubt as to how to proceed, please contact your financial, tax or other professional adviser.

Investor Presentation

Further details of the Transaction and the Placement are detailed in the investor presentation released on the ASX platform today (www.asx.com.au).

Advisers

Longreach Capital is acting as financial adviser to the Transaction and Placement. All Mining Legal and Steinepreis Paganin are acting as legal advisers on the Transaction. Steinepreis Paganin is acting as legal adviser to the Placement.

Canaccord Genuity (Australia) Limited and Euroz Hartleys Limited are acting as Joint Lead Managers to the Placement.

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

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FORWARD LOOKING STATEMENTS

All dollar amounts are in Australian dollars unless otherwise indicated.

This announcement may contain certain statements and projections provided by or on behalf of Cyprium Metals Limited with respect to the anticipated future undertakings. These forward-looking statements reflect various assumptions by or on behalf of Cyprium.

Accordingly, these statements are subject to significant business, economic and competitive uncertainties and contingencies associated with the mining industry which may be beyond the control of Cyprium which could cause actual results or trends to differ materially, including but not limited to price and currency fluctuations, geotechnical factors, drilling and production results, development progress, operating results, reserve estimates, legislative, fiscal and regulatory developments, economic and financial market conditions in various countries, approvals and cost estimates, environmental risks, ability to meet funding requirements, share price volatility. Accordingly, there can be no assurance that such statements and projections will be realised. Cyprium makes no representations as to the accuracy or completeness of any such statement of projections or that any forecasts will be achieved.

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This announcement has been prepared for publication in Australia and may not be released to US wire services or distributed in the United States. This announcement does not constitute an offer to sell, or a solicitation of an offer to buy, securities in the United States or any other jurisdiction. Any securities described in this announcement have not been, and will not be, registered under the US Securities Act of 1933 ("US Securities Act") and may not be offered or sold in the United States except in transactions exempt from, or not subject to, registration under the US Securities Act and applicable US state securities laws.

Refer to the Investor Presentation for further Important Notices and Disclaimers

Additional Information required under ASX Listing Rules 5.8

MINERAL RESOURCE ESTIMATE FOR THE NIFTY PROJECT

Chapter 5 of the ASX listing rules requires that Cyprium provide for each Mineral Resource Estimate (MRE) reported to the ASX, descriptions of the geology and mineralisation, sampling, sub-sampling methods and drilling techniques, sample analysis method(s), estimation methodologies, the criteria used for JORC Code classification of the estimates, cut-off grade information including the basis, along with assumed mining and metallurgical methods and other material modifying factors applied to the MREs.

TABLE 1: NIFTY MINERAL RESOURCE ESTIMATE AT 31 DECEMBER 2019

Deposit	Mineral Resource Category[1]	Mt[2]	Grade % Cu	Copper tonnes[2]
Nifty Sulphide[3]	Measured	25.09	1.70	426,700
	Indicated	7.46	1.32	98,400
	Inferred	7.10	1.03	73,400
	Total	39.66	1.51	598,500
Nifty Oxide[4]	Measured	1.43	0.91	13,000
	Indicated	1.22	0.86	10,000
	Inferred	1.68	0.83	14,000
	Total	4.33	0.86	37,000
Nifty Heap Leach Oxide[5]	Measured	-	-	-
	Indicated	2.85	0.75	20,000
	Inferred	0.46	0.66	3,000
	Total	3.31	0.74	23,000
TOTAL	Measured	26.52	1.66	439,700
	Indicated	11.53	1.11	128,400
	Inferred	9.24	0.98	90.400
	Total	**47.29**	**1.39**	**658,500**

1. Mineral Resources are reported inclusive of Mineral Resources modified to produce an Ore Reserve;
2. Tonnes are reported as million tonnes (Mt) and rounded to the nearest 10,000; Cu tonnes are rounded to the nearest 100 tonnes; rounding may result in some slight apparent discrepancies in totals.
3. Cut-off grade of 0.75% Cu.
4. Nifty Oxide Mineral Resource is at 31 March 2016 and reported using a cut-off grade of 0.40% Cu
5. Nifty Heap Leach Resource is at 31 March 2015 and reported using a cut-off grade of 0.50% Cu

The Nifty Mineral Resource estimate was released to the ASX by Metals X Limited in an announcement dated 10th March 2020. The key assumptions and JORC 2012 requirements include –

- Mining production data up to 31 December 2019 and all exploration information has been included. Mineral Resources have been depleted for mining to 31 December 2019. There has been no mining undertaken since that time.
- The Mineral Resources have been classified in accordance with the guidelines set out in the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves, published by the Joint Ore Reserves Committee (JORC), of the Australasian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists and the Minerals Council of Australia, December 2012 (the 'JORC Code' or 'JORC 2012').

Geology and Geological Interpretation

The Nifty deposit is hosted within the folded Neoproterozoic Broadhurst Formation which is part of the Yeneena Group. The Broadhurst Formation is between 1000 m to 2000 m thick and comprises 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 between 6 and 12 degrees to the southeast. The stratabound 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 has been mined to date is largely hosted within the keel and northern limb of the syncline.

Sampling and Sub-sampling Techniques

The deposit has been drilled and sampled using various techniques with diamond and reverse circulation drilling, from both surface and underground. Total metres drilled within the immediate vicinity of the deposit are 283,227m.

Drilling Techniques

Drilling programs have been ongoing since initial discovery to both expand the mineralisation and provide control for mining. Hole collars were surveyed by employees/contractors of the various owners. Down hole surveys were recorded using appropriate equipment with diamond core logged for lithology and other geological features.

Classification

The criteria used to categorise Mineral Resources include robustness of the input data, confidence in the geological interpretation, including the predictability of both structures and grades within the mineralised zones, the distance from data, and amount of data available for block estimates within the respective mineralised zones. The input data is consistent and closely spaced enough to support the projection of the geological interpretation which in terms of the style of mineralisation is consistent with other deposits within the same geological setting. Infill drilling programs have successfully confirmed previous wider spaced drilling in terms of geological and grade predictions. The estimated grade correlates well with the input data given the nature of the mineralisation.

Sample Analysis Method

Diamond core varies from HQ to NQ in diameter and mineralised intervals and adjacent locations were sampled by cutting the core in half based on contacts of lithology and other geological features. RC samples were collected from the cyclone of the rig and spilt at site to approximately 2 to 3kg weight. Preparation and analysis was undertaken at accredited commercial laboratories with ISO/IEC 17025 accreditation.

Estimation Methodology

All modelling and estimation work undertaken by Metals X was carried out in three dimensions using Leapfrog™ and/or Surpac™ software. After validating the drillhole data to be used in the estimation, Wireframing was then carried out using a combination of implicit algorithms and manual explicit triangulation to create an accurate three-dimensional representation of the sub-surface mineralised body. Once the sample data has been composited, a statistical analysis was undertaken to assist with determining estimation search parameters and top-cuts. Variographic analysis of individual domains was undertaken to assist with determining appropriate search parameters and incorporated with observed geological and geometrical features to determine the most appropriate search parameters. Block sizes used in modelling varied depending on orebody geometry, minimum mining units, estimation parameters and levels of informing data available and are determined using QKNA in Snowden SupervisorTM software. Grade estimation used ordinary kriging estimation methodology. Hard boundaries were applied to the units and grade estimated within these boundaries. The resource was then depleted for mining

voids and subsequently classified in line with JORC guidelines utilising a combination of estimation derived parameters and geological / mining knowledge.

Cut-off Parameters

Lithological boundaries were used to define sequence units with statistical grade assessment used for confirmation. The resource reporting cut-off grade was 0.75% Cu for the sulphide resource.

Mining and Metallurgy Factors or Assumptions

Mining of the sulphide deposit has historically been by long hole open stoping. The mined ore was processed on site to produce copper concentrate. This has been successful over the life of the project (>10yrs) and therefore metallurgically the deposit is amenable to the method adopted. It is noted that Nifty Copper Operations were placed in Care and Maintenance in late November 2019.

MINERAL RESOURCE ESTIMATE FOR THE MAROOCHYDORE PROJECT

Chapter 5 of the ASX listing rules requires that Cyprium provide for each Mineral Resource Estimate (MRE) reported to the ASX, descriptions of the geology and mineralisation, sampling, sub-sampling methods and drilling techniques, sample analysis method(s), estimation methodologies, the criteria used for JORC Code classification of the estimates, cut-off grade information including the basis, along with assumed mining and metallurgical methods and other material modifying factors applied to the MREs.

TABLE 2: MAROOCHYDORE MINERAL RESOURCE ESTIMATE AT 31 MARCH 2016

Deposit	Mineral Resource Category	Mt[1]	Grade % Cu	Copper tonnes[2]	Grade ppm Co	Cobalt tonnes[2]
Oxide[3]	Measured	-	-	-	-	-
	Indicated	40.80	0.92	375,000	388	15,800
	Inferred	2.40	0.81	19,000	451	1,100
	Total	**43.20**	**0.91**	**394,000**	**391**	**16,900**
Sulphde[4]	Measured	-	-	-	-	-
	Indicated	-	-	-	-	-
	Inferred	5.43	1.66	90,000	292	1,600
	Total	**5.43**	**1.66**	**90,000**	**292**	**1,600**
TOTAL[5]	Measured	-	-	-	-	-
	Indicated	40.80	0.92	375,000	388	15,800
	Inferred	7.83	1.40	110,000	341	2,700
	Total	**48.63**	**1.00**	**486,000**	**380**	**18,550**

1. Tonnes are reported as million tonnes (Mt) and rounded to nearest 10,000;
2. Cu tonnes are rounded to nearest 1,000 tonnes; Co tonnes are rounded to the nearest 100 tonnes;
3. Cut-off Grade of 0.5% Cu;
4. Cut-off Grade of 1.1% Cu;
5. Rounding may result in some slight apparent discrepancies in totals.

The Maroochydore Mineral Resource estimate was released to the ASX by Metals X Limited in an announcement dated 18th August 2016. The key assumptions and JORC 2012 requirements include –

- The Oxide and Supergene Mineral Resource for the Maroochydore Project as at 18th August 2016 has remained the same since that estimated and published by Aditya Birla as at 31st March 2013.
- The Sulphide Mineral Resource for the Maroochydore Project as at 18th August 2016 has remained the same since that estimated and published by Aditya Birla as at 31st March 2013.
- The Mineral Resources have been classified in accordance with the guidelines set out in the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves, published by the Joint Ore Reserves Committee (JORC), of the Australasian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists and the Minerals Council of Australia, December 2012 (the 'JORC Code' or 'JORC 2012').

Geology and Geological Interpretation

The Maroochydore deposit comprises a large oxide and supergene copper deposit originally discovered in 1984 and is hosted within the ~850 to 824 Ma Yeneena Supergroup of the Neoproterozoic Yeneena Basin. The Broadhurst Formation hosts both the Maroochydore and Nifty deposits.

The Maroochydore deposit is entirely masked by 10 to 110m of glacial sediments of the Permian Paterson Formation. Beneath this, mineralisation is hosted by an up to 75m thick unit comprising carbonaceous shale and dolomite members.

Hypogene copper mineralisation occurs in two main forms. The first is fine-grained and associated with framboidal pyrite, which it rims and replaces, within the two carbonaceous shale units. The second is coarse-grained, within zoned dolomitic veins. Hypogene mineralisation comprises pyrite, pyrrhotite and chalcopyrite, with traces of sphalerite and galena.

While the hypogene mineralisation is the subject of ongoing exploration, Maroochydore currently comprises a zone of supergene enriched sulphides and the mineralisation occurs as a number of bodies immediately below the unconformity with the Paterson Formation.

Copper mineralisation in the "oxide" is within an attenuated north south trending oxide/supergene sequence, hosted in gently folded sediments. The upper flat lying oxide zone accounts for over half of the "oxide" mineral resource. Chalcocite is the main sulphide component. The "sulphide" mineralisation occurs in a gently folded position within the same sequence below and to the east.

Sampling and Sub-sampling Techniques

The deposit has been drilled and sampled using various techniques with diamond and reverse circulation drilling, from surface. Maroochydore has 294 diamond, RC and percussion holes totalling 45,500m.

Drilling Techniques

Drilling programs have been ongoing since initial discovery to expand the extent of known mineralisation. Down hole surveys were recorded using appropriate equipment with diamond core logged for lithology and other geological features. The diamond core was of variable diameter with surface holes drilled using HQ and NQ and RC holes use a face sampling hammer in a 150mm diameter hole.

Classification

The criteria used to categorise Mineral Resources include robustness of the input data, confidence in the geological interpretation, including the predictability of both structures and grades within the mineralised zones, the distance from data, and amount of data available for block estimates within the respective mineralised zones. The input data is consistent and closely spaced enough to support the projection of the geological interpretation which in terms of the style of mineralisation is consistent with other deposits within the same geological setting. Infill drilling programs have successfully confirmed previous wider

spaced drilling in terms of geological and grade predictions. The estimated grade correlates well with the input data given the nature of the mineralisation.

Sample Analysis Method

Diamond core varies from HQ to NQ in diameter and mineralised intervals and adjacent locations were sampled by cutting the core in half based on contacts of lithology and other geological features. RC samples were collected from the cyclone of the rig and spilt at site to approximately 2 to 3kg weight. Preparation and analysis was undertaken at accredited commercial laboratories.

Estimation Methodology

At Maroochydore, the oxide, transition and fresh mineralisation has been estimated using indicator kriging based on un-cut 1m composites with each zone estimated separately. The search strategy (distance and orientation) was based on geostatistical analysis. The sulphide mineralisation was estimated by ordinary kriging on uncut 1m composites. Grade estimation was carried out in either of the Vulcan™, Surpac™ or Datamine™ applications. The block size for the oxide, transition, fresh and sulphide was 20mE x 50mN x 10mRL. Sub-celling to half the block size in each direction was adopted to ensure accurate volume representation. In all cases estimation was to the parent block size.

Maroochydore has been subject of previous estimates by various parties on the same data giving similar results.

Cut-off Parameters

A 0.5% Cu cut-off applied to the oxide, transition and fresh material describes that material from which open cut studies have identified economical outcomes by transporting and processing the material at Nifty. It is assumed that the Maroochydore sulphide will be mined and treated in a similar way with a higher reporting cut-off applied to identify material closer to the sulphide operating grade at Nifty.

Mining and Metallurgy Factors or Assumptions

Various past owners of the deposits have considered that future development of the project may or may not use existing infrastructure located at the nearby Nifty project, but it remains so that treatment methods under consideration may involve techniques used too historically beneficiate copper mineralisation at Nifty.

COMPETENT PERSON STATEMENT

The information in this report that relates to Mineral Resources is based on information compiled by Mr Terry Burns BAppSc (Geology) GDipEd PDGeosci (Mineral Economics) GDipEng (Mining), a Competent Person who is a Fellow and Chartered Professional of the Australasian Institute of Mining and Metallurgy. Mr Burns is an independent consultant to Cyprium Metals Limited and is a director of Warbrooke-Burns & Associates Pty Ltd which is the entity providing services to Cyprium Metals Limited. Warbrooke-Burns & Associates Pty Ltd is retained by Cyprium Metals Limited under industry standard commercial consulting rates. Mr Burns 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Burns consents to the inclusion in the report of the matters based on his compilation and in the form and context in which it appears.

JORC Code, 2012 Edition – Table 1 report

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 (e.g. 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.*	The deposit has been drilled and sampled using various techniques with diamond and reverse circulation drilling utilised for mineral estimation. This information comes from surface and underground and is on variable spacing along and across strike. The total metres within the immediate vicinity of the Deposit are 283,227m. The holes are drilled on most occasions to intersect as near as possible perpendicularly the synclinal east plunge mineralisation.
	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.*	The drilling programs have been ongoing since initial discovery to both expand the mineralisation and provide control for mining. The hole collars were surveyed by employees/contractors of the various owners with the orientation recorded. Down hole survey was recorded using appropriate equipment. The diamond core was logged for lithology and other geological features.
	In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	The diamond core varied from HQ to NQ in diameter and mineralised intervals and adjacent locations were sampled by cutting the core in half based on contacts of lithology and other geological features. The RC samples were collected from the cyclone of the rig and spilt at site to approximate 2 to 3Kg weight. The preparation and analysis was undertaken at accredited commercial laboratories, ALS or Intertek Genalysis. Both laboratories have attained ISO/IEC 17025 accreditation. ALS used the ME-ICP61 four acid digest method using a sample of 0.2g with an ICPAES finish. Over limit results (>1% Cu) were re-analysed using the ME-OG62 method, which involves subjecting a 0.4g sample to a four acid digest with an ICPAES finish. Intertek Genalysis used a four acid digest using a 0.2g sample with an ICP-OES finish. Over limit results (>1% Cu) were re-assayed using an ore grade four acid digestion of 0.2g sample, and an AAS finish. The analysis and preparation of recent diamond drilling by Metals X was undertaken at the onsite Nifty laboratory which was contracted to accredited analytical testing service ALS. On-site, ALS used a Fusion XRF15C method for analysis.
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	
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.*	The drilling was completed using a combination of surface and underground drilling. In general, the orientation of the drilling was appropriate given the given the strike and dip of the mineralisation.

Criteria	JORC Code explanation	Commentary
	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 in excess of 95% within the fresh/sulphide zones. This was assessed by measuring core length against core run. There is no record of 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 is 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 is 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 describes the general geology features including stratigraphy, lithology, mineralisation, alteration etc. For the majority of holes this information is sufficient and appropriate to apply mineralisation constraints. Some core drilling is orientated and structural measurements of bedding, joints, veins etc. has occurred as well as fracture densities. Geological logging has recorded summary and detailed stratigraphy, lithology, mineralisation content, and alteration, some angle to core axis information, vein type, incidence and frequency, 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.* *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.* *Whether sample sizes are appropriate to the grain size of the material being sampled.*	All core to be sampled was half cored using a mechanical saw. It is 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 riffled to collect between 2 and 3kg. Most samples are dry with any moisture noted on the logs. Field sub-sampling for chip samples appears appropriate as was the use of core cutting equipment for the submitted core. Procedures adopted in the laboratories are industry standard practises including that in the mine site facility. In field riffles are cleaned between sampling using compressed air. The diamond cutting equipment was cleaned during the process using water. All laboratories adopt appropriate industry best practises to reduce sample size homogeneously to the required particle size. No field duplicate information was observed. The style of mineralisation and high sulphide content does not rely on grain size as being influential on grade. Thus, there is confidence in the overall grade of the deposit being fairly represented by the sampling.

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is 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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	The assay techniques are 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 the majority of holes used in the estimate provide support for the quality of the Cu assays.
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 data set was reviewed by various parties including Maxwell Geoscience and DataGeo and the intersections within the mineralisation were confirmed. No twinned holes observed but there was a significant amount of closely spaced supportive drilling results. Field data was captured electronically, validated by the responsible geologist and stored on corporate computer facilities. Protocols for drilling, sampling and QAQC are contained with company operating manuals. The information generated by the site geologists was loaded into a database by the company database administrator and underwent further validation at this point against standard acceptable codes for all variables.
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.*	The collar positions were resurveyed by the Company surveyor or their contractors from a known datum. The survey was on a known local grid with demonstrated control. The orientation and dip at the collars was checked (aligned) by the geologist and down hole recording of azimuth and dip are taken at 30m intervals on most occasions using appropriate equipment. Accuracy tests in downhole surveys have been conducted on recent drilling and show negligible variation against 'Gyro' survey by independent third party. The regional grid is GDA94 Zone 50 and the drilling was laid out on a local grid. Topographic control is from surface survey - note the deposit modelled is totally underground and is not influenced by surface topography.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The majority of drilling utilised was on 40m x 20m grid pattern drilled from surface specifically targeting lithological and hence mineralisation sequence

Criteria	JORC Code explanation	Commentary
	Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. *Whether sample compositing has been applied.*	definition, while current underground drill spacing was 20m to 25m on average. The geological sequence is well understood from the mining which supports the current drill spacing as adequate for both grade continuity assessment and lithological modelling The sampling reflects the geological conditions. For Mineral Resource estimation a 2m composite length was chosen to reduce composite copper grade variability and facilitate variogram modelling, why still maintaining reasonable resolution for estimation.
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 is known, considering the deposit type.* *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	Given the shape of the sequence, the drilling as best as practically possible, was orientated to intersect the sequence perpendicularly. No sampling bias was considered to have been introduced.
Sample security	*The measures taken to ensure sample security.*	The samples once collected and numbered are stored in the site core yard. Each sample bag was securely tied with the pre-printed sample number on the bag and transported to either the onsite laboratory or by commercial contractors to Perth. Upon receipt at the laboratory the samples were checked against the dispatch sheets to ensure all samples were present.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Resources and reserves were routinely reviewed by the previous owner's Corporate technical team. Database management companies have over the past 3 years audited the drill hole database and found it 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, which is 100% held by Nifty Copper Pty Ltd, a wholly owned subsidiary of Paterson Copper Pty Ltd.
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

Criteria	JORC Code explanation	Commentary
		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 Nifty project was subsequently purchased from Straits Resources by Aditya Birla Minerals Ltd in 2003. Nifty open pit mining ceased in June 2006. Copper extraction using heap leaching ceased at Nifty in January 2009. Nifty underground mining of the primary (chalcopyrite) mineralisation started in 2009. The Nifty project was purchased from Aditya Birla in 2016 by Metals X Ltd.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Nifty deposit is hosted within the folded Neoproterozoic 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. The Broadhurst Formation hosts all known significant base metal occurrences including the Nifty copper mine and the Maroochydore, Rainbow and Warrabarty prospects. Structurally, the dominant feature is the Nifty Syncline which strikes approximately southeast-northwest and plunges at about 6-12 degrees to the southeast. The stratabound 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 is currently 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:* *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.*	No exploration results are reported as part of this release and any results relating to the deposit have been previously released.
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	

Criteria	JORC Code explanation	Commentary
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* *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 previously released.
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 is known, its nature should be reported.* *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. '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 previously released.
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 previously released.
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	No exploration results are reported as part of this release, and any results relating to the deposit have been previously released.
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 previously released.

Criteria	JORC Code explanation	Commentary
Further work	*The nature and scale of planned further work (e.g. 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 is not commercially sensitive.*	The Nifty resource currently remains open to the east. Open pit and underground feasibility works; Validation drilling in areas of potential economic mineralisation; Infill drill areas of data paucity proximal to the underground development. This will 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.*	Drillhole data is stored in a Maxwell's DataShed system based on the SQL Server platform which is currently considered "industry standard". As new data is acquired it passes through a validation approval system designed to pick up any significant errors before the information is loaded into the master database. The information is uploaded by a series of SQL routines and is performed as required. The database contains diamond drilling (including geotechnical and specific gravity data) and some associated metadata. By its nature, this database is large in size, and therefore exports from the main database are undertaken (with or without the application of spatial and various other filters) to create a database of workable size, preserve a snapshot of the database at the time of orebody modelling and interpretation and preserve the integrity of the master database.
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 is the case.*	The Competent Person who was quoted on the updated release as at 31st December 2019 worked on the Nifty site. The Competent Person quoted for this release as having reviewed and compiled this work was previously Technical Services Manager at Nifty 1994-96 and visited the site for several days in March 2020.
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 the history of underground mining and the closely spaced drilling and other sample information. Only physical data obtained from the drilling and underground workings was utilised. The application of hard boundaries to reflect the position of the mineralised sequence was supported by the underground and drilling observations. No other assessment style is thought appropriate at this time. The sequence units are subject to vertical and horizontal dimension changes along and across strike and in thickness. The mineralisation occurs as either disseminated or massive within the sequence and thus influences the grade continuity.

Criteria	JORC Code explanation	Commentary
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 Deposit occurs over a 1,200m down plunge distance and units vary individually between 0m to 30m in true thickness. The limbs of the sequence are variously mineralised and 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 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.*	Geological modelling was undertaken in Leapfrog Geo, while estimation work undertaken by Metals X was carried out in three dimensions via GEOVIA Surpac. After validating the drillhole data to be used in the estimation, interpretation of the orebody was undertaken in Leapfrog Geo to form three-dimensional orebody wireframes. Wireframing was then carried out using a combination of implicit algorithms and manual explicit triangulation to create an accurate three-dimensional representation of the sub-surface mineralised body. Drillhole intersections within the mineralised body are defined; these intersections are then used to flag the appropriate sections of the drillhole database tables for compositing purposes. Drillholes are subsequently composited 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. Once the sample data has been composited, a statistical analysis is undertaken to assist with determining estimation search parameters, top-cuts etc. Variographic analysis of individual domains was undertaken to assist with determining appropriate search parameters. Which are then incorporated with observed geological and geometrical features to determine the most appropriate search parameters. An empty block model was then created for the area of interest. This model contains attributes set at background values for the various elements of interest as well as density, and various estimation parameters that are subsequently used to assist in resource categorisation. The block sizes used in the model will vary depending on orebody geometry, minimum mining units, estimation parameters and levels of informing data available. This is determined via QKNA in Snowden's Supervisor software. Grade estimation was then undertaken, with the ordinary kriging estimation method considered as standard. There are no assumptions made about recovery. Hard boundaries were applied to the units. Grade was estimated within these boundaries. The resource was then depleted for mining voids and subsequently classified in line with JORC guidelines utilising a combination of various estimation derived parameters and geological / mining knowledge. Estimation results were routinely validated against primary input data, previous estimates and mining

Criteria	JORC Code explanation	Commentary
		output. There are no by-products. There are no deleterious elements other than occasional slightly elevated fluorine.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	The tonnages were estimated using density determined by copper content thus can be considered dry.
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.
Mining factors or assumptions	*Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is 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 is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	The operation is currently in 'Care and Maintenance'. Past mining of this deposit was by long hole open stoping and has been demonstrated as being technically achievable.
Metallurgical factors or assumptions	*The basis for assumptions or predictions regarding metallurgical amenability. It is 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 is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	The operation is currently in 'Care and Maintenance'. Previously ore mined was processed on site to produce Cu concentrate. This has been successful over the life of the project and thus metallurgically the deposit is amenable to the method adopted.
Environmental factors or assumptions	*Assumptions made regarding possible waste and process residue disposal options. It is 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*	To the best of understanding, Metals X operated in accordance with all environmental conditions set down as conditions for grant of the respective mining leases.

Criteria	JORC Code explanation	Commentary
	have not been considered this should be reported with an explanation of the environmental assumptions made.	
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 (vugs, 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.*	Determined by extensive testwork, density was applied based on oxidation intensity, stratigraphic unit and Cu grade (for copper grades in excess of 1% copper, a regressed density value has been calculated based on linear fit to the slope of the graph).
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 include 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, and amount of data available for block estimates within the respective mineralised zones. The input data was consistent and closely spaced enough to support the projection of the geological interpretation which in terms of style of mineralisation is consistent with other deposits within the same geological setting. Infill drilling programs have successfully confirmed previous wider spaced drilling in terms of geological and grade predictions. 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.*	Resource estimates were peer reviewed by the site technical team as well as Metals X's corporate technical team. The 2019 Mineral Resource Estimate was externally audited by Cube Consulting Pty Ltd, who found no fatal flaws and deemed the estimation 'fit for purpose' for global mine planning. The 2020 Mineral Resource Estimate follows similar methodology.
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 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 is not deemed appropriate, a qualitative discussion of the factors that could affect the relative*	All currently reported resource estimates are considered robust, and representative on both a global and local scale. This was derived primarily through Metal X's understanding of the geology of the deposit and global mineralisation controls. The statement relates to global estimates of tonnes and grade.

Criteria	JORC Code explanation	Commentary
	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.*	

JORC Code, 2012 Edition – Table 1 report

Maroochydore 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 (e.g. 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.*	The deposit was drilled and sampled by diamond coring, reverse circulation (RC), percussion (PC) and rotary air blast sampling with holes on variable spacings. The total metres (diamond, RC and PC only) within the immediate vicinity of the Deposit exceeds 45,500m from 294 sampled holes. The holes are drilled mostly vertical to grid west to intersect the flat lying to gently undulating mineralisation.
	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.*	The diamond core was collected and placed in appropriately labelled core boxes. After logging intervals to be sampled were half cut using a core saw. RC holes generate samples for each 1m drilled which were collected from the cyclone, sample recovery was generally considered good although not recorded. There was no information on the sampling techniques adopted for the PC drilling.
	In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	For the diamond drilling the mineralised intervals and adjacent locations were sampled by cutting the core in half based on the logging. The preparation and analysis was undertaken at an accredited commercial laboratory. The entire sample was dried and crushed to 2mm and then split and a portion pulverised to 80% passing 10micron. The analysis was by acid digest methods with an ICPAES finish. RC samples were split in the field to approximately 2.5Kg and then prepared and assayed in the same manner as for the diamond samples. No information is available concerning the PC hole sampling or analysis.
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	Diamond drilling in the mineralisation was mostly cored from collar although some tails on RC holes are noted. Hole length all hole types ranges from 17.5m to 604m. The percentage of each hole type in the "oxide" mineralisation was 39% diamond, 43% RC and 18% percussion. In the "sulphide" it was 81% diamond, 2% RC and 17% PC.
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.*	Core recovery has only been recorded from the 12MAD series holes and 485 measurements averaged in excess of 97%. Sample Recovery for RC and PC drilling has not been recorded. Core recovery was on average extremely good and no additional measures are required to maximise recovery. The representativeness of the core in terms of copper grade is appropriate given the QAQC conducted. There is no documentation on the sample collection/recovery for the RC holes.
	Whether a relationship exists between sample recovery and grade and whether	Whilst no assessment has been conducted/reported the competency of the core as demonstrated by the high

Criteria	JORC Code explanation	Commentary
	sample bias may have occurred due to preferential loss/gain of fine/coarse material.	average recovery would tend to preclude any potential issue of sampling bias. The lack of documentation on the sample recovery for the RC holes precludes any assessment.
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 is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* *The total length and percentage of the relevant intersections logged.*	For core geological recording of lithology mineralisation, veining, alteration, weathering, structure is appropriate to the style of the Deposit occurs. Chip lithological logs are maintained for the RC and some of the PC samples. For core geological logging is both in summary and detailed for the information listed above and includes mineralisation type and content, some angle to core axis information, vein type, incidence and frequency, magnetic content. For RC and PC holes the logging is qualitative. The entire length of all holes, apart from any near 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.* *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.* *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Based on information provided all core to be sampled was halved using a mechanical saw. It is not known if the core sample was consistently taken from one side of the stick. The half core sample was dried and crushed to 2mm and then split and a portion pulverised to 80% passing 10micron. The entire sludge sample was dried, pulverised and split prior to analysis. RC samples are collected by either rotary splitter or riffling. Based on information relating with the previous companies and knowledge of past owners the approach of using commercial laboratory facility for the preparation of samples is industry standard practise for this type of material with the copper mineral content demonstrated. Sub-sampling of RC samples used riffles and rotary splitter which are cleaned (air blasted) between samples. Laboratory sample preparation was monitored by the use of included blank with the latter programs of samples submitted to the laboratory. The QAQC results are on most occasions supportive of the copper grades however such QAQC does no relate to all drilling. No field duplicates (RC or core) results have been observed. The mineralisation style and the relatively low local grade variance combined with the domaining by similar mineral species provides confidence in the overall grade of the deposit being fairly represented.
Quality of assay data and	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	The assay techniques applied for the measurement of copper content is appropriate for the determination of the level of copper in the sample. The routine technique was 4 acid digest with ICPOES analysis.

Criteria	JORC Code explanation	Commentary
laboratory tests	*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.*	No such tools have been used.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Standards and Blanks were included at approximately 1 in 20 of the number of samples submitted for the recent holes. The results were acceptable. There does not appear to be bias in copper grade by sampling method.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Higher grade mineralisation was observed and verified by personnel associated with previous owners.
	The use of twinned holes.	No specific twinning program has been reported however there are 4 occasions were holes from different programs (and types) are within 10m of each other and the comparison of copper results is supportive.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	No documentation is available on the primary data collections. It appears that more recent data was recorded directly onto electronic spread sheets and validated against code tables by the database manager.
	Discuss any adjustment to assay data.	not applicable
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.*	The collar positions for the most recent drilling programs were surveyed by RTK/DPGS from known surface datums. There is no information about the method adopted for earlier drilling. The orientation and dip at the start of the hole was recorded. Various methods were used to determine down hole position, but a significant number of holes do not have a method recorded.
	Specification of the grid system used.	The regional grid is GDA94 Zone 51 and the deposit is laid out on a local grid which was a based on a 3-Pnt transformation.
	Quality and adequacy of topographic control.	Topographic control was taken from site surveys and whole collar surveys and is adequate for the control required.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Spacing varies with position in the deposit. In the "oxide" it is on a 100m x 100m grid infilled in some areas to 50m x 50m. Spacing reduces with depth. In the "sulphide" the spacing is much wider being 200m x 100m or more.
	Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	Successive drilling programs have in filled the previous and on the majority of occasions drilling has returned mineralisation in the expected locations. This provides a high degree of confidence in the mineral continuity.

Criteria	JORC Code explanation	Commentary
	Whether sample compositing has been applied.	The sampling reflects the length collected for percussion drilling in the mineralisation, the majority was 1m but there are some 2m long samples. Diamond drilling sampling reflects geological conditions and used a 1m maximum length.
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 is known, considering the deposit type.* *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	The drilling was orientated vertical to grid west to as best as possible be perpendicular to the mostly flat lying mineralisation. No sampling bias was considered to have been introduced given the assessment by sample type.
Sample security	*The measures taken to ensure sample security.*	The chain of custody adopted by the previous owners for its drilling and sampling programs was based on responsibility and documentation. No information is available for previous drilling programs.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Audits have been conducted on the recorded drill hole data by the previous owners.

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 Maroochydore Copper–Cobalt Project comprises the defined oxide and sulphide Mineral Resources at Maroochydore surrounded by a package of ~650km^2 of granted and pending tenements. There are no known issues regarding the security of tenure.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Maroochydore has a long and complicated ownership history with the key points being: • Initial discovery by Esso in 1984 leading to extensive follow-up exploration programs. • Detailed drilling and maiden resource by Barrick Mines Ltd between 1989-1991. • Extensive exploration and metallurgical studies by Mount Isa Mines between 1991-1996. • Mining studies by Straits Resources between 1996-2003. Some early sulphide drilling. • Acquired by Aditya in 2003 who focussed on oxide and sulphide resource drilling. Maiden sulphide resource declared; and

Criteria	JORC Code explanation	Commentary
		• Acquired by Metals X in September 2016. Oxide metallurgical drilling during 2017 and various exploration programs during 2017-2019.
Geology	*Deposit type, geological setting and style of mineralisation.*	Maroochydore is hosted within the Yeneena Supergroup of the Yeneena Basin, which in turn comprises part of the Paterson Orogen. The Yeneena Supergroup is subdivided into the Throssell Range and succeeding Lamil Groups. The Throssell Range Group is composed of the Coolbro and overlying Broadhurst Formations with the latter hosting both the Maroochydore and Nifty deposits. The Maroochydore deposit is entirely masked by 10 to 110m of glacial sediments of the Permian Paterson Formation. Beneath this, mineralisation is hosted by an up to 75m thick unit comprising two carbonaceous shale members, each of which is 25 to 40m thick. Maroochydore currently comprises a zone of supergene enriched sulphides and oxides within a JORC compliant Mineral Resource of 48.63 million tonnes at 1.0% Cu and 0.038% Co. Mineralisation occurs as a number of bodies immediately below the unconformity with the Paterson Formation, the largest of which forms a NW-SE elongated, >3 km by 200 to 600m wide ribbon. Supergene mineralisation comprises covellite, cuprite, malachite, azurite, native copper, chalcocite and minor chrysocolla.
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:* *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 is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	No exploration results are reported as part of this release, and any results relating to the deposit have been previously released.
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	No exploration results are reported as part of this release, and any results relating to the deposit have been previously released.

Criteria	JORC Code explanation	Commentary
	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.*	
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 is known, its nature should be reported.* *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. '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 previously released.
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 previously released.
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	No exploration results are reported as part of this release, and any results relating to the deposit have been previously released.
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 previously released.
Further work	*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*	The Maroochydore deposit has not been completely defined by geological activities. Open pit and underground feasibility works;

Criteria	JORC Code explanation	Commentary
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Validation drilling in areas of potential economic mineralisation; Ongoing metallurgical testwork to allow the decision on a processing flowsheet for each mineralisation type. Infill drill areas of data paucity proximal to known resources. This would increase resource confidence and resultant classifications.

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.*	The data utilised has been validated by the previous owner's database manager in terms of metadata (or not), techniques, sample interval etc. It is not apparent if a comparison between the base data (laboratory result sheets and drill logs and despatch sheets) to the information for the database sample intervals has been made. The previous owner utilised a SQL Server database and loads data with the contents checked against validation tables. There is a high level of confidence in the more recent data.
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 is the case.*	The site was regularly visited by the previous owner's Competent Person for this deposit.
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 was considered good as it has been supported by relatively close spaced drilling particularly in the "oxide". The mineralisation zones are based on mineral content which has a relationship to the geological controls. There is less confidence in the "sulphide" interpretation. Only physical data obtained in the field was utilised. The application of hard boundaries to reflect the position of the zones was the only way to effectively domain this deposit into like metallurgical locations. Whilst the terminating lateral extents are subjective this would have only minimal influence of overall volumes. The use of hard boundaries for the mineralisation provides the control for the estimation. Mineralisation is disseminated within the host rock and generally in horizontal layers. The position and style of mineral impacts the grade continuity.
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*	The "oxide" zones are hosted by carboniferous shales and occur over a strike length of 3Km and to a thickness of up to 75m and vary from 100m to 800m in true width. The "sulphide" mineralisation occurs within the same

Criteria	JORC Code explanation	Commentary
	Mineral Resource.	stratigraphy but deeper over a strike length of 2.4Km, a width of up to 1Km and varies in thickness between 50m and 200m.
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 description of computer software and parameters used.*	In the "oxide" the large number of composites enabled continuity modelling which indicated range shortening with increased grade which supported the use of indicator kriging techniques for Cu and Co. For Zn with less data and a less robust continuity model inverse distance techniques were used. Grade estimation was carried out in Vulcan™ application. Density was assigned as defaults by zone, the defaults appear reasonable given the geological/mineralisation conditions but there is no support for the defaults. The composites were created within each zone and input to the grade estimation was restricted to those composites which were within the zone being estimated. Top-cuts were applied to the composites in zone estimated by IVD and the values were based on statistical analysis. Estimated blocks were informed a three-step strategy with orientation set to the orientation of the zone being estimated. The initial (primary) search was 50m x 30m x 15m in strike, dip and across dip-strike plane. This search range was expanded by double the length for blocks were not informed in the primary search and again in the final search strategy. This strategy informed more than 93% of the blocks in the primary and secondary search. For the "sulphide" the amount of composite data was less but still a continuity model was determined. Grade estimation was by Ordinary Kriging within the Datamine application. The 1m composite were not top-cut nor search restricted and search was in the general orientation of the mineralisation by zone at distance of 30m long strike, 20m across strike and 10m perpendicular to the dip-strike plane. A secondary search at double the primary search distances informed blocks not estimated in the primary search. For the "oxide" the most recent previous estimate provided very similar results to the estimate reported. This was the first estimate for the "sulphide". No assumptions have been made regarding the viability of recovering Co or Zn nor their influence on the copper recovery process. No assessment of the impact of Zn in concentrate in terms of its deleterious economic impact has been made. Block models were constructed separately for the "oxide" and the "sulphide" using a consistent block size of 20mE x 50mN x 10mRL. Positioning of the blocks was such that they centred on section lines when appropriate.
	The availability of check estimates, previous estimates and/or mine production records	not applicable

Criteria	JORC Code explanation	Commentary
	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.*	Whilst correlation between Cu and other elements has been reviewed the results do not influence the Cu estimation process. Hard boundaries were applied to the zones. Grade was estimated within these boundaries. Statistical analysis indicated that some zones had elevated coefficients of variation. For the "oxide" the influence of outlier grades was moderated by either the estimation technique (IK smooths grades in the upper grade ranges to fit a theatrical distribution) or by applying a top-cut in the case of Zn. For the "sulphide" there was less influence of the "outlier" grades thus no action was taken to moderate their influence. Volume validation was carried out by comparison of the solids representing the mineralisation to the block model. Grade validation was carried by both global comparison of the average estimated grade to the average input grade and spatially by comparison of the estimated grades to the input grades by position. Visual comparison also was used.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	The tonnages were estimated using density defaults which whilst looking sensible for the geology and mineralisation, have no support.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	A 0.5% Cu reporting cut-off for the "oxide" identifies material with an average grade which may be economic based on scoping studies using open cut mining and the transport of "ore" to Nifty for processing. No studies have yet to be undertaken on the "sulphide" so the reporting cut-off (1.1%) has been set to define a higher grade component of the mineral resource.
Mining factors or assumptions	*Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is 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 is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	Recent optimisation studies on the "oxide" using industry costs for open cut mining and ore haulage and processing and administration costs seen at Nifty have identified, over the full depth of the resource, up to 17Mt which could be economically mined. Whilst these studies were not to scoping study accuracy, they are indicative of the potential. No studies have been undertaken on the "sulphide".

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	*The basis for assumptions or predictions regarding metallurgical amenability. It is 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 is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	The metallurgical characteristics of the "oxide" mineralisation were assessed in a 2008 study which Cu recovery varying between 36% and 72% for the oxide zone (variation by process type) and 80 and 85% for supergene the zones which make up the great majority of the mineral resource. No studies have been undertaken on the "sulphide" however given its similar characteristics to Nifty it is assumed that the material can be treated using conventional methods.
Environmental factors or assumptions	*Assumptions made regarding possible waste and process residue disposal options. It is 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.*	No studies have been undertaken in detail.
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 (vugs, 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.*	No density information has been determined from samples for this Deposit. The assumptions made and the defaults used whilst appearing appropriate need to be supported by measurement. Given the style of the mineralisation it is not anticipated that there is significant porosity but since no density measurements have been undertaken there is no way of defending the defaults adopted. No comment can be made on this.
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*	The classification was based on the quality and amount of input data, the grade continuity model and the physical domaining of like material. Shortcomings in QAQC for most of the data have been offset by the amount of drilling data with supportable assay information. Higher confidence was placed in areas with the most supporting data. The input data is supportive by type (i.e. each sampling collection method provided within statistical limits the

Criteria	JORC Code explanation	Commentary
	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.*	same result) and the use of the mineral species within a well-supported geological interpretation provides sufficient confidence in both the estimation and the location of the estimation. Later drilling programs have successfully infilled earlier programs in mineralised locations predicted by the initial program. The estimated grade correlated well on most occasions with the input data given the nature of the mineralisation. The Mineral Resource estimate reflected the competent persons understanding of the deposit at the time of estimation.
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	No audit has been undertaken of their estimate. Given the similarity pf the "oxide" to the previous estimate (2007) based on the same dataset it is not expected that an audit would show many, if any, discrepancies.
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 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 is 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.*	The mineral resource estimate was volume and sample constrained. The grade estimation was appropriate to the statistical and geo- statistical observations of the mineralisation. The confidence in the mineral resource was defined by the classification adopted as per the guidelines of the 2012 JORC code. The statement relates to global estimates of tonnes and grade. not applicable