

**ASX ANNOUNCEMENT**

**31 May 2022**

## **Nifty Copper Project Update**

### **HIGHLIGHTS**

- **Significant increase in MRE (Mineral Resource Estimate) with more to come**
- **SX/EW refurbishment advancing for recommissioning**
- **Camp, gas power-house, infrastructure, upgrading progressing for recommissioning**
- **Nifty Project Government Approval submissions lodged and on-track**
- **Metallurgical fine-tuning with optimisation of processing parameters & recoveries**
- **Project Financing in advanced discussions with financiers**

Managing Director Barry Cahill commented:

*“The Nifty Copper Project Restart Study demonstrates that the fundamentals of the project are robust, which does not include the increased Mineral Resource Estimate that we announced earlier this month.*

*We are currently focused on finalising the project debt financing for a fully funded project and then to execute our construction plans so that we produce copper metal plate on site in the second half of 2023.*

*While working through the finance process, Cyprium have not been idle, continuing to set Nifty up for the construction works post finance and pushing forward with the Maroochydore and Murchison Projects as assay results are received from the 2021 field season.”*

### **Project Progress**

Cyprium Metals Limited (“**CYM**”, “**Cyprium**” or “**the Company**”) continues to make solid progress on the development of its Nifty Copper Project.

#### *Mineral Resource Estimate*

The first mineral resource estimate (“**MRE**”) upgrade has been completed using the latest Nifty West drilling data with positive results. The next MRE update is to include the Nifty East drilling data. Further drilling will be undertaken as the orebody remains open in a number of directions.

The MRE upgrade has also delivered opportunities to refine and optimise the Phase 1 Oxide pit design and scheduling. The Life Of Mine planning has commenced and analysis for an expanded pit over the total mineral resource is focussing on the mine life (+20 years) and production profile.

#### *Site Clean Up and Inventory*

Since taking control of the site in April 2021, CYM has undertaken a significant clean-up of the mine site, including the rectification of a number of outstanding safety and environmental legacy issues. Progress to date has been significant but there is still much to do.

Site being cleaned up with scrap collected and sorted ready for sale or disposal:



Image 1 / Organised store inventory of spares

There has been significant sorting of equipment, parts, critical spares and supplies, which is ongoing. Required equipment is being recredited to inventory and that which is not required is being collated for sale as surplus. The process has revealed the significant inventory of spares that was included in the Nifty acquisition.

Work has been completed on the concrete batching plant so it is ready for operation once construction commences, significantly improving project cost efficiencies during the construction phase.

#### *SX-EW Refurbishment*

Work has continued on the preparation for refurbishment of the solvent extraction and electrowinning (“SX-EW”) plant. This includes clean up around the facility, stripping out tanks, pumps and pipes for assessment and refurbishment, pressure and condition testing of tanks.



The tank strip out includes hydrotesting to allow repair assessment:



Image 2 / SX Mixer Settler clean-up top level



Image 3 / SX Mixer Settler cleanout lower level – before

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Image 4 / SX Mixer Settler cleanout lower level – after



Image 5 / EW - Removal of Cathodes

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Image 6 / EW - Anode removal



Image 7 / Cleaning out EW Cells post Hydro testing

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Image 8 / Cleaned EW Cells ready for condition inspection

### *Accommodation Refurbishment*

The refurbishment of the accommodation has continued with one area completed, ready for hand over to use. The refurbishment has consisted of a full strip out and refit to each unit, including wet area upgrade to bring the units up to current expected standards for on-site accommodation.



Image 9 / Accommodation Refurbishment Materials





Image 10 / Previous Camp Accommodation



Image 11 / Refurbished accommodation

Refurbishment has also included areas in the dry mess and dining area, as well as upgrading of laundry facilities in the refurbished areas.



Image 12 / Refurbished Bathroom

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## *Operational Readiness*

The mobile communications tower has been significantly upgraded to enable 4G services with communications and data capacity across site improved enabling high definition calling and streaming services as well as vastly improved cloud/business capabilities.

Site control systems are being commissioned and made operational, including Safety and ERP systems. The Safety systems are being reviewed and updated in line with Nifty's approved Project Management Plan.

The ERP establishment has embedded the budget and project cost tracking process.

Personnel IT systems are being prepared for the manpower increases, including on-boarding, travel and accommodation.

Site training is continuing, including upskilling for new workers as well as gap analysis for the experienced personnel.

CYM's first intake of apprentices have also commenced.



Image 13 / Core skills training





Image 14 / Repairing of piping and equipment

### *Regulatory Approvals*

Works Approval and Licence has been accepted and advertised. The next stage of the process is the requirement for a post construction inspection and authorisation that it has been built as described in the approval documents, complying with the conditions for the approval which will enable the Department of Water and Environmental Regulation (“**DWER**”) to grant the licence.

The Native Vegetation clearing Permit has gone through the Request for Further Information (“**RFI**”) process and Cyprium is awaiting feedback on any more requests.

Mining Proposal (“**MP**”) and Mine Closure Plan (“**MCP**”) is currently in an RFI process.

The Project Management Plan (“**PMP**”) has been approved.

The Water Licence has been through an RFI process and Cyprium is awaiting further feedback.



Permit/Item	Legislation	Department	Description	Submission Status	Date Lodged/Approved
Works Approval and Licence	Environmental Protection Act (1986)	Department of Water & Environmental Regulation (DWER)	Amended Prescribed Activities Licence to enable processing	Application accepted and advertised	8th March 2022 4th May 2022
Native Vegetation Clearing Permit		Department of Mines Industry Regulation & Safety (DMIRS)	Authorises the clearing of native vegetation for project development	Lodged	14th November 2021
Mining Proposal	Mining Act (1978)	Department of Mines Industry Regulation & Safety (DMIRS)	Approval for mining activities and construction of mine infrastructure	Lodged	21st February 2022
Mine Closure Plan		Department of Mines Industry Regulation & Safety (DMIRS)	Defines rehabilitation and closure accompanying the Mining Proposal	Lodged	21st February 2022
Project Management Plan	Mines Safety & Inspection Act (1994)	Department of Mines Industry Regulation & Safety (DMIRS)	Project safety plan approval	Approved	22nd March 2022
26D Licence to Alter Water Abstraction Methods of an Existing Licence	Rights in Water and Irrigation Act (1914)	Department of Water & Environmental Regulation (DWER)	Change in abstraction mechanism under the existing water licence	Lodged	25th February 2022

Table 1 / Government Approvals Status

### Nifty Metallurgy

Over 200,000 tonnes of copper has been produced as copper metal cathode from the heap leach SX-EW that is on site at Nifty. The historical testwork has demonstrated that recoveries in the order of +90% are achievable. The heap leach pads as treated had variable results, depending on the methodology used to treatment the material. CYM will make improvements to the process by focussing testwork on the practical parameters of the leach.

The first stage was to run 4 columns, including a 6-metre column, on heap leach retreat material to investigate a number of parameters around crush size, copper recovery and agglomeration. Results to date have been very good, with crush size being optimised and recovery of copper being as expected from the historical testwork. The improved agglomeration is proving successful in allowing good solution flows right through the 6-metre column. Final residue analysis is being undertaken so that reporting for this series of tests can be finalised.

The second stage has been to run 6 columns of heap leach material from various locations (via trench samples and sonic drill holes) at various cure and leach strengths to reduce reagent consumption, particularly acid consumption. Results to date have been very good and these columns are currently in the final stages of leaching, which will then be subject to residue analysis in the coming weeks and the final reports compiled. The results confirm the reagent consumptions and recoveries that CYM anticipated for the retreat material and hence fresh material from the oxide open pit.

Mineralogical reports to date have shown leaching of the full suite of copper minerals from the retreat material, including minerals in the various rock types, and including secondary and primary sulphide minerals such as covellite, digenite, bornite and chalcopyrite.

The next stage of testing will be conducted on a suite of core samples taken from the open pit mineral resource. Although it is the same rock types and orebody as mined and treated historically, Cyprium is ensuring that the leach process is tested on individual ore types to determine if there are any further optimisation work that can be done, if the material to be mined is not as uniformly distributed as the retreat material. This stage of testing will also look at the recovery of the thin native copper that has been identified historically in the Nifty orebody and has been seen in the footwall of the mineral resource during diamond drilling.





Image 15 / Copper rich solution flowing out of the heaps following recent rainfall at Nifty, for future solution inventory

### *Project Financing*

As part of the financing for the Nifty Copper Project restart, Cyprium is in advanced discussions with financing counterparties who are working through their due diligence and financing documentation. To finance the Nifty Copper Project restart, which includes Nifty capital expenditure, contingencies, working capital, and financing costs, Cyprium is in discussions with commercial lenders, metal trading companies, mining credit funds, and Cyprium is also contemplating to finance the restart through a fixed income debt instrument. This may result in Cyprium initiating a series of fixed income investor meetings to explore the viability of such an instrument. For the debt portion of the Nifty Copper Project restart, Cyprium is targeting approximately AUD 240 million to AUD260 million of total debt funding (including cost overrun contingency and working capital) for the financing of the Nifty restart and project costs, which is expected to comprise of senior secured financing, subordinated debt, and offtake financing.



Image 16 / CYM Nifty Vehicles on the line ready to go on receipt of finance



### **Maroochydore**

The 2021 Drilling results being compiled as the assays are received. Cyprium will then compile a resource update following receipt and interpretation of all results.

Metallurgical testwork will commence once the Nifty core tests are completed and this, in conjunction with the resource update, will give a direction for the next round of work to be conducted in the 2023 field season at Maroochydore.

Current activities include maintaining expenditure on targets on the exploration licences around the mining leases at Maroochydore. Heritage survey work has been completed for the 2022 field season with the drill rig expected in July 2022 to complete the drilling for these leases. Access has been impacted this year by the heavy rainfall experienced right through the region.

### **Murchison**

Nanadie Well results are being compiled, interpreted and resource updated. Multi element work needs to be completed as part of this resource review. The Nanadie Well Project has seen assays return elevated grades of Copper, Nickel, Cobalt, Gold, Silver, Zinc and Lead as well as Platinum and Palladium. Previous drilling has not been assayed for a full suite of these metals and follow up work will require this to be done.

The mineral resource estimate review and update has identified a number of exciting opportunities for the expansion of this deposit, particularly to the north, as well as the potential for economic mineralisation in other metals in addition to copper and gold.

Metallurgical testwork will be undertaken following the Nifty core work. Drill core is currently in Perth awaiting this testing to commence. The metallurgical testwork will be examining the heap leach aspects of the metal extraction.

Drilling at Nanadie Well has been undertaken in 2022 around adjacent targets to Nanadie Well, including the Stark Prospect to the east. The samples have been compiled and delivered to the laboratory for assay analysis.

The drill rig is being moved from Nanadie well to complete the 2022 Cue drilling, which will continue into June. The drilling programme, like Maroochydore, is focussed on exploration licences around the Mining Lease and identified prospects, where there have been mineralised intersections previously, such as at Eelya South, Mt Eelya and Colonel.

This ASX announcement was approved and authorised by the Board.

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## About Cyprium Metals Limited

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

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

### Paterson Copper Projects

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

The Nifty Copper Mine ("Nifty") is located on the western edge of the Great Sandy Desert in the north-eastern Pilbara region of Western Australia, approximately 330km southeast of Port Hedland. Nifty contains a 2012 JORC Mineral Resource of 940,200 tonnes of contained copper<sup>i</sup>. Cyprium is focussed on a heap leach SX-EW operation to retreat the current heap leach pads as well as open pit oxide and transitional material. Studies will investigate the potential restart of the copper concentrator to treat open pit sulphide material.

The Maroochydore deposit is located ~85km southeast of Nifty and includes a shallow 2012 JORC Mineral Resource of 486,000 tonnes of contained copper<sup>ii</sup>. Aeris Resources Limited (ASX: AIS, formerly Straits Resources Limited) holds certain rights to "buy back up to 50%" into any proposed mine development in respect of the Maroochydore Project, subject to a payment of 3 times the exploration expenditure contribution that would have been required to maintain its interest in the project.

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

### Murchison Copper-Gold Projects

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

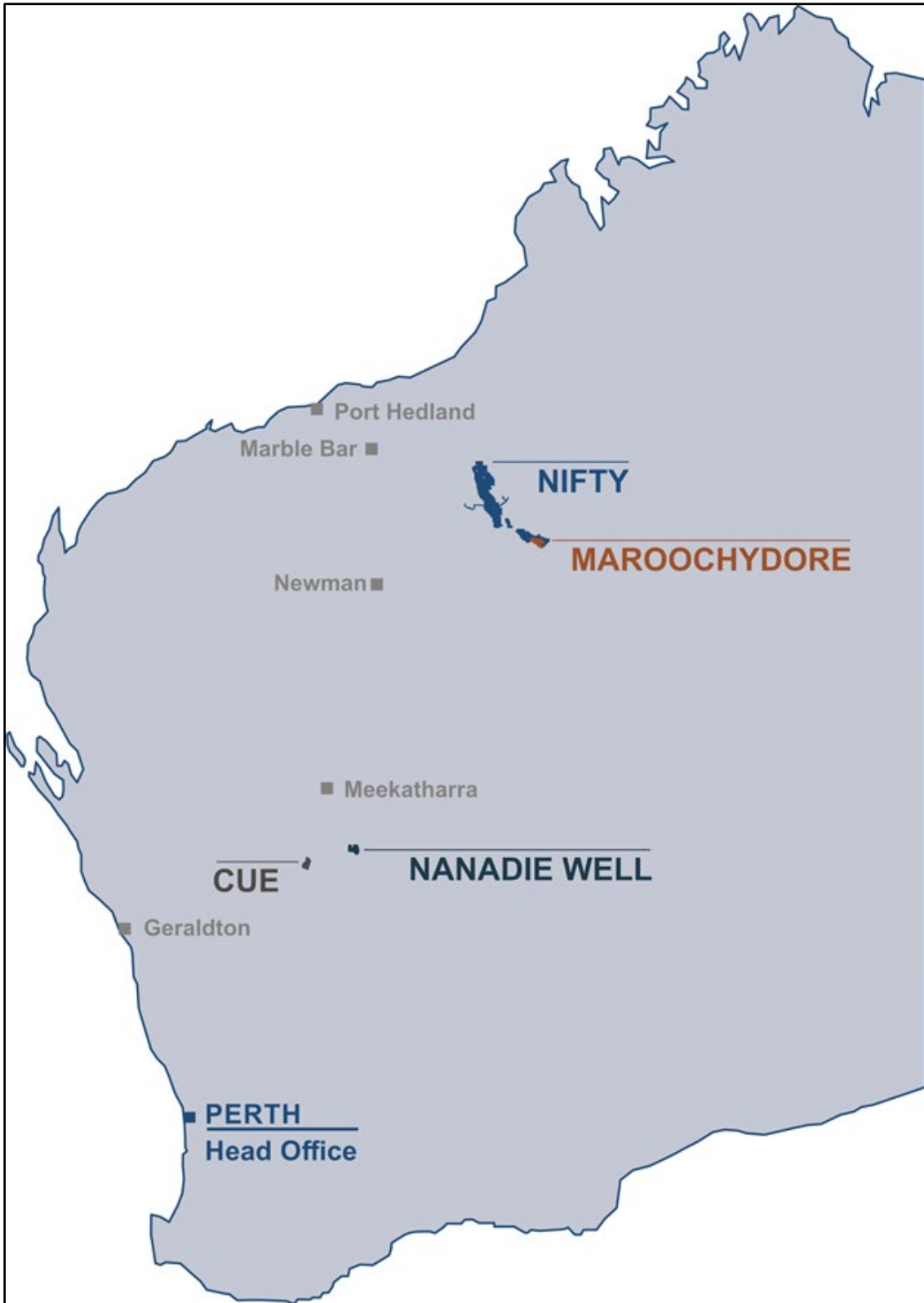
The Nanadie Well Project is located ~650km northeast of Perth and ~75km southeast of Meekatharra in the Murchison District of Western Australia, within mining lease M51/887.

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

<sup>i</sup> Refer to CYM ASX announcement dated 16 May 2022 "28.4% increased Nifty Copper MRE to 940,200t copper metal"

<sup>ii</sup> Refer to MLX ASX announcements: 10 March 2020, "Nifty Copper Mine Resource Update" and 18 August 2016, "Annual Update of Mineral Resources and Ore Reserves"

<sup>iii</sup> Refer to CYM ASX announcement: 29 September 2020, "Hollandaire Copper-gold Mineral Resource Estimate"



*Cyprium Metals project locations*

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