

**ASX ANNOUNCEMENT**

**29 July 2021**

**Quarterly Activities Report**  
For the period ending 30 June 2021

**Paterson Copper Project Portfolio**

- Since completing the acquisition on 30 March 2021, Cyprium remains focussed on rapidly advancing Nifty towards production
- Recent works completed at Nifty include:
  - Mineral resource infill drilling review which has identified priority targets
  - RC sterilisation drilling to confirm location of key site infrastructure
  - Trenching of heap leach pad for metallurgical test-work bulk samples
  - Sonic drilling of heap leach pads to gain core samples
  - 3,000m resource expansion drill program on Eastern end of the pit
  - Undertake flora and fauna surveys
  - Appointment of key management for site and technical roles
- Other works streams currently underway include:
  - Engineering report and cost estimate for replacement vs refurbishment for SX-EW plant
  - 16,000m resource expansion drill program on Western end of the pit
  - Column test with bulk samples to optimise the metallurgical parameters
  - Review of site communications and camp upgrade
  - Engagement with traditional owners and government authorities

**Nanadie Well Copper-Gold Project**

- Extensive shallow sulphide copper-gold intersections continuing immediately below the oxide copper-gold halo
- Phase 1 diamond drilling programme has consistently intersected sulphide mineralisation at shallow depths ranging from 45m to 341m downhole
- Nanadie Well Phase 1 Diamond Drilling results include:
  - 144m @ 0.7% Cu & 1.5g/t Ag from 25m in NWD2004
  - 232m @ 0.4% Cu & 0.1g/t Au from 109m in NWD2001

**Corporate**

- Cyprium ended the quarter with a cash of \$50.6 million



Cyprium Metals Limited (**ASX: CYM**) (“**Cyprium**” or the “**Company**”) is pleased to provide an overview of the Company’s activities for the 3 months ending 30 June 2021.

Managing Director Barry Cahill commented:

*“We are pleased with the progress of our activities at the rapidly evolving Nifty Copper Project since we acquired it at the end of the previous quarter. An RC drill rig has been at Nifty for more than two months now to conduct sterilisation and resource definition drilling, and another RC rig has arrived this week to accelerate these activities.*

*A diamond drill rig is also scheduled to arrive at Nifty in the coming weeks. These additional drill rigs have been mobilised to site to complete our expanded resource drilling programmes, targeting in-situ resources around the open pit.*

*Metallurgical test-work is underway on the trench samples taken from the heap leach whilst test-work on samples from recently completed sonic drilling campaign will commence in August. We are very excited by the initial observations of the leaching from the column test-work. We are also proceeding with the optimisation of the leaching process for the heap leach retreat at Nifty.*

*Manning numbers have continued to increase as we recruit more personnel to site as we ramp up our activities.*

*At Nanadie Well, we have been very pleased with the initial set of assay results from the Phase 1 diamond drilling campaign, with all holes intersecting visible copper mineralisation.*

*Diamond drill hole NWD2004 is consistently mineralised through to a depth of 208 metres from just 25 metres from surface. Diamond drill hole NWD2001 was commenced from outside of the supergene mineralised corridor and angled west towards the sulphide zone, returning assays with a consistent 232 metre copper mineralised intersection from 109 metres downhole.*

*Diamond drill hole NWD2001 intersected a crackle breccia zone with high grade silver sulphide mineralisation from 303 metres downhole, which requires further work to define the mineralisation style.*

*These are a fantastic set of drill results for this extensive deposit at Nanadie Well, which is very shallow, broad, consistently mineralised and is open in multiple directions.”*

## **Nifty Copper Project**

### **Resource Definition Drilling**

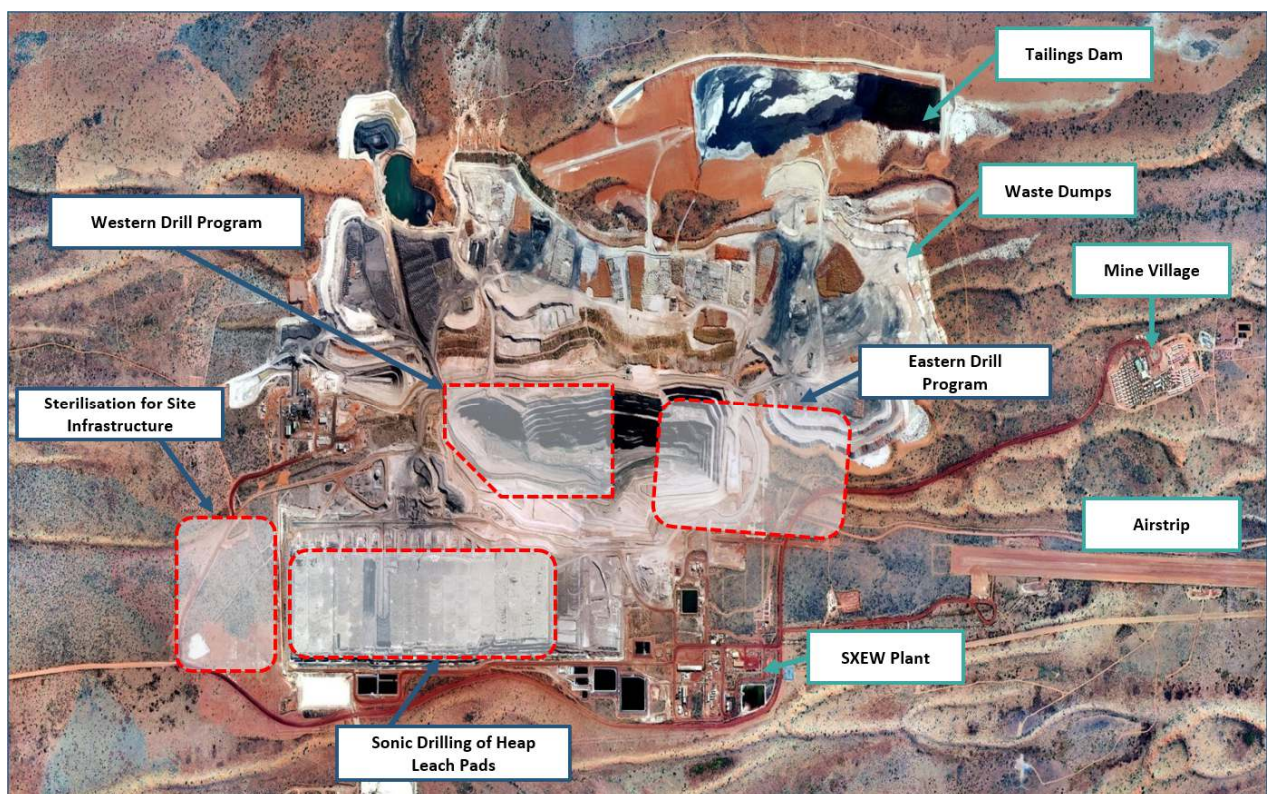
A reverse circulation (“**RC**”) drill rig was mobilised to site immediately upon Cyprium taking control of the site. The drill rig has been focused on completing several time critical activities to enable the project to move forward to construction and production.

The initial estimated RC resource drilling programme has been increased to approximately 19,000 metres and a second drill rig has recently arrived on site, to complete the drilling in a timely manner.

Cyprium maintains its view that more mineral resources exist higher up in the mineralised envelope of the orebody and, subject to the result of the initial programmes, will require further drilling to quantify a potential increase to the existing Nifty resource.

### *Eastern Drilling*

An RC drilling programme of over 3,000 metres has been completed on the Eastern limb. Drilling was undertaken to increase density of existing drilling and test the potential for transitional and supergene ore extensions from the eastern end of the Nifty open pit. The previously identified oxide and transitional mineralisation is being drilled to an appropriate density to add to the base load in-situ resource for Cyprium’s heap leach restart strategy.



**Figure 1 | Drilling Locations and Survey Area**

### *Western Drilling*

A 16,000 metre RC drilling campaign has commenced to test the potential up-plunge extensions of the oxide and transitional mineralisation’s at the western extremity of the Nifty open pit. Historically, mineralisation in this region has been of lower confidence, being in the inferred resource category, due to the sparse drilling density.

### **Sterilisation Drilling**

Sterilisation drilling was undertaken on the western end of the current heap leach pad which potentially lay over a portion of the Nifty mineralisation. This drilling has now been completed with all holes intersecting the footwall sequences of the Nifty rock formations, which effectively sterilises the area. This is positive for the project as it allows the more detailed planning and investigation to be commenced on the location designated for the required infrastructure.



## **Metallurgical Test-work**

### *Heap Leach Pad Drilling*

A sonic drill rig was mobilised to site to obtain specialised core samples for metallurgical test-work. The rig has been very effective in producing complete core samples from the existing heap leach pads, for column leach metallurgical test-work.



*Image 1 | Sonic Rig at the Heap Leach Pads*



*Image 2 | Metallurgical test-work sample from Sonic Rig*

## *Diamond Drilling*

A diamond rig has been contracted and is mobilising to site in the coming weeks. This rig will obtain diamond core samples of in-situ mineralisation around the open pit for column leach tests on the copper mineralisation. Whilst over 200,000 tonnes of copper metal plate have been produced at Nifty historically and the metallurgy is well understood, it has been over a decade since new methods have been tested, particularly the unique methodology utilised by Cyprium on its Hollandaire resource. Once the diamond rig has completed the program at Nifty, it will complete some preliminary geotechnical drilling before mobilising to the Maroochydore Copper Project to drill core samples for similar metallurgical test-work.



*Image 3 | Heap Leach Pads at the Nifty Copper Project*

## *Bulk Samples*

Samples taken from the trenching of the heap leach pads have been prepared and are currently in the laboratory, undergoing column test-work leaching analysis. The initial test-work is in line with Cyprium's internal expectations for the heap leach re-treat studies. The preliminary leaching results have been excellent in the short period to date. The column will continue to leach and once the final results are compiled into a presentable form, they will be released to market.

The initial stages of this test-work are confirming both the improved leaching rates that Cyprium's proprietary methods can produce, and the parameters used in the proof-of-concept studies.





*Image 4 | Trenching of the heap leach at the Nifty Copper Project*



*Image 5 | Copper sulphate solution from Nifty test-work column 1*

## Site Surveys and Studies

### *SX-EW Studies & Geotechnical*

The studies into the SX-EW plant continue with early indications that a new plant will add significant value to the project through improved efficiencies at lower operating costs, although at a higher capital cost than refurbishing the existing plant. This work is ongoing, particularly regarding the determination of the full cost to the battery limits and to the timing of commissioning of either facility.

Reporting and costing of various components for inclusion in the Feasibility Study to finance the construction phase are continuing. Since the Heap Leach and SX-EW operations ceased, there has been material improvements in technology and process methods and Cyprium believe these will further enhance the project's value.

Geotechnical work and surveys on the planned locations is ongoing, including drilling activities to ensure these studies are completed on schedule. A geotechnical test pit has also been completed.

### *Site Infrastructure*

Communications upgrades are underway for both mobile and satellite services. The camp refurbishment programme has been approved and a dedicated team will manage this project. Discussions are ongoing for contractor tender, selection and mobilisation. The camp upgrade will involve a mix of new and refurbished rooms with some of the older areas of the accommodation being scrapped due to the age and deteriorated condition.

### *Site surveys and baseline studies*

Several flora and fauna surveys (part of the approval and permitting process) have been conducted. All surveys are expected to be completed and finalised in accordance with the project timeline.

Water management planning is continuing, and the reporting is expected on time, including the initial considerations of water extraction from the underground voids below the open pit.

Preliminary site visits have been conducted with government, traditional owners and investors to showcase in a broad sense the current state of the facilities and the plans for the restart of the project. All visits have been well received with follow up meetings being undertaken. Further site visits are being planned with various parties to continue to engage with stakeholders regarding our plans. The Cyprium Board have conducted a Board meeting on site in conjunction with a detailed site visit.



*Image 6 | Commencement of the Nifty Geotechnical test pit with a 20t Excavator*



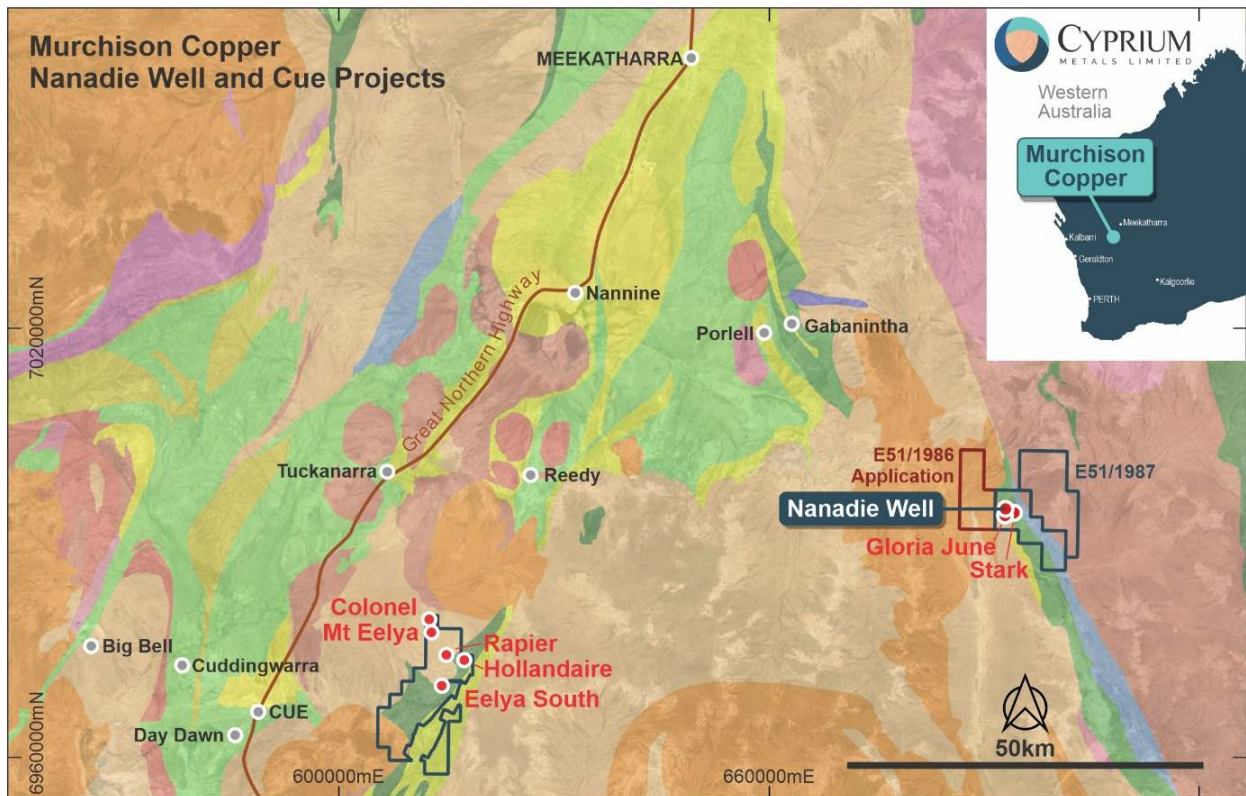


Figure 2 | Location of the Murchison Copper Project and the Nanadie Well prospect

## Nanadie Well Copper-Gold Project

The layered mafic magmatic hosted disseminated/stringer sulphide mineralisation consists of pyrrhotite, pyrite and chalcopyrite as the dominant copper sulphide. It has previously been drilled in a wide-spaced pattern of 1 diamond and 88 RC drillholes over a strike length of 750 metres and between 100 to 200 metres wide, to a maximum depth of 234 metres and an average depth of 100 metres, with numerous drill holes finishing in mineralisation. Higher grade mineralisation occurs as fractionated layers in the host metagabbros and metanorites, as is normally the case with magmatic copper deposits.

### *Nanadie Well Sulphide Diamond Drilling Programme*

Extensive near-surface oxide and sulphide mineralisation has been identified during drilling programmes, which is open along strike to the north and south and across strike to the west. The mineralisation does not outcrop and is covered by 1 to 25 metres of transported material. Preliminary investigations of the Nanadie Well deposit data indicates potential for oxide and sulphide mineralisation over the currently identified strike of 750 metres.

The Company's 1,328 metre Nanadie Well diamond drilling programme was completed during the first quarter of 2021 and was primarily designed to test the sulphide mineralisation below 50m depth at the deposit. There is an extensive shallow sulphide copper-gold intersection continuing immediately below the oxide material derived from the layered mafic intrusive unit that has been outlined in the previous RC drilling announcements and quarterly reports (refer to [Quarterly Activities Report - 31 Dec 2020](#) and [Quarterly Activities Report - 31 March 2021](#)).

Drillhole NWD2001 also includes a crackle breccia zone with high grade silver sulphide mineralisation which had not been previously encountered at the project and requires further analysis.





### Highlights from the Diamond Drill program:

- Nanadie Well Phase 1 Diamond Drilling results from NWD2004 include:
  - 143.8m @ 0.7% Cu and 1.5g/t Ag from 25.0m including:
    - 2.5m at 2.1% Cu from 77.8m including:
      - 0.7m at 5.1% Cu from 79.5m
    - 7.9m @ 2.9% Cu from 82.1m including:
      - 5.9m @ 3.6% Cu from 82.1m including:
        - 1.0m at 10.9% Cu from 86.0m
    - 6.0m @ 2.2% Cu from 92.0m including:
      - 3.2m @ 3.9% Cu from 94.8m including:
        - 0.7m at 11.6% Cu from 94.8m
    - 25.0m @ 0.8% from 139.0m, including:
      - 3.0m @ 2.2% Cu from 161.0m including:
        - 1.0m at 4.6% Cu from 161.0m
  - 4.0m @ 2.2% Cu from 181.0m including:
    - 2.0m at 3.6% Cu from 182.0m
  - 1.0m @ 1.4% Cu from 196.0m
- Nanadie Well Phase 1 Diamond Drilling results from NWD2001 include:
  - 232m @ 0.4% Cu & 0.1g/t Au from 109.0m including:
    - 10.0m at 0.7% Cu & 0.1g/t Au from 109.0m including:
      - 2.0m at 1.8% Cu & 0.2g/t Au from 116.0m
    - 1.2m at 3.1% Cu & 0.2g/t Au from 131.0m.
    - 4.9m @ 1.2% Cu & 0.2g/t Au from 138.0m including:
      - 1.8m @ 2.9% Cu & 0.4g/t Au from 138.1m
    - 0.7m at 4.8% Cu & 0.2g/t Au from 188.7m
    - 12.3m @ 0.5% Cu & 0.1g/t Au from 190.1m
    - 1.4m @ 1.3% Cu & 0.3g/t Au from 228.0m
    - 9.9m @ 0.5% Cu & 0.1g/t Au from 232.2m including:
      - 0.7m @ 2.4% Cu & 0.4g/t Au from 234.4m
    - 18.0m @ 0.4% & 0.1g/t Au from 256.0m, including:
      - 0.8m @ 2.6% Cu & 0.6g/t Au from 265.1m
    - 6.0m @ 1.2% Cu & 0.2g/t Au from 276.0m including:
      - 2.6m at 2.0% Cu & 0.5g/t Au from 277.0m
    - 9.0m @ 0.4% Cu & 392g/t Ag from 303.0m including:
      - 2.0m at 0.1% Cu & 1,470g/t Ag from 306.0m



**Image 7 | NWD2001: 303.0m to 312.0m; 9.0m @ 392 Ag g/t crackle breccia silver sulphide mineralisation, including 2.0m @ 1,470 Ag g/t from 306.0m.**



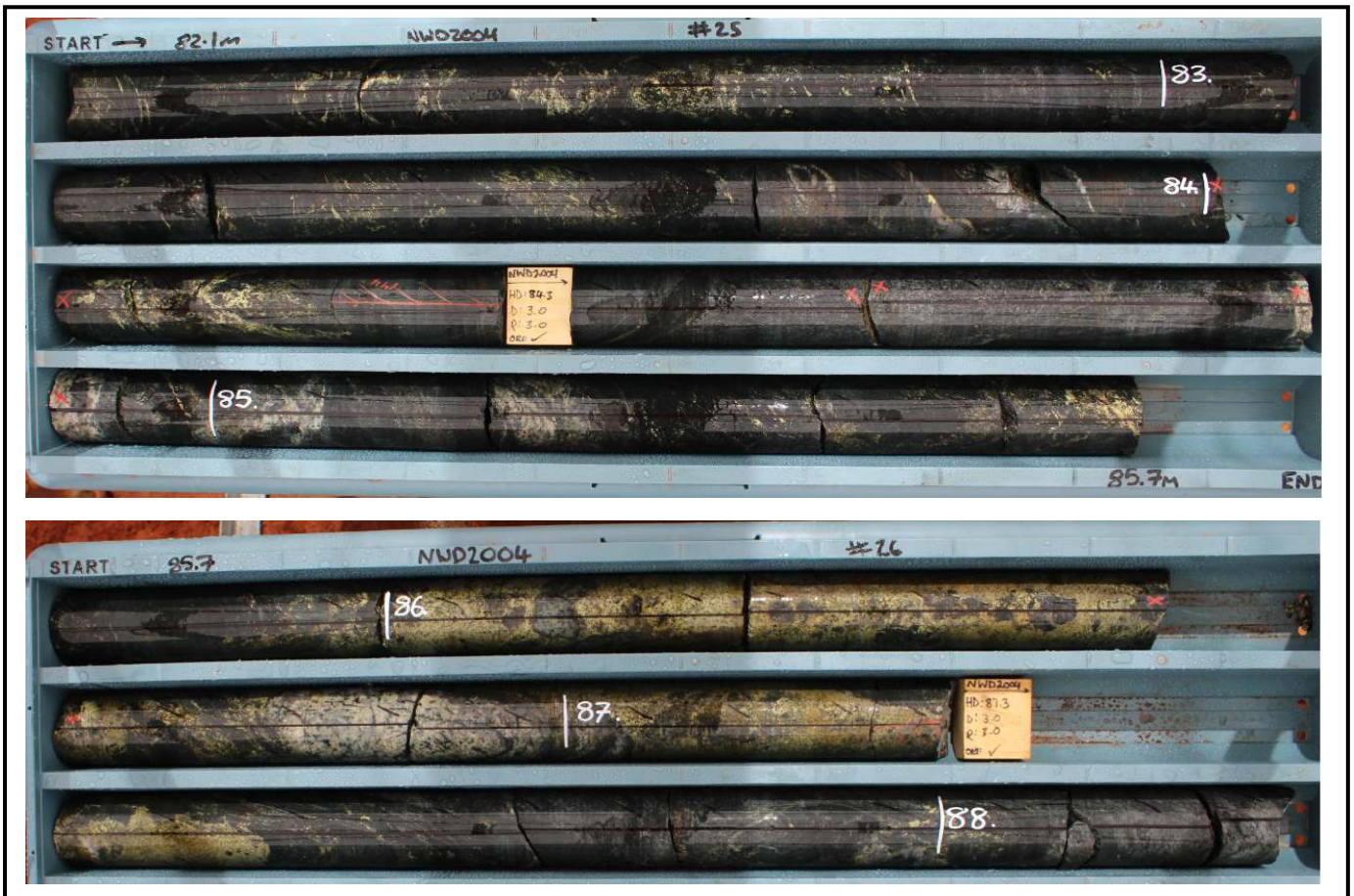


Image 8 | NWD2004: 82.1m to 88.0m; 5.9m @ 3.6% Cu chalcopyrite mineralisation, including 1.0m @ 10.9% Cu from 86.0m

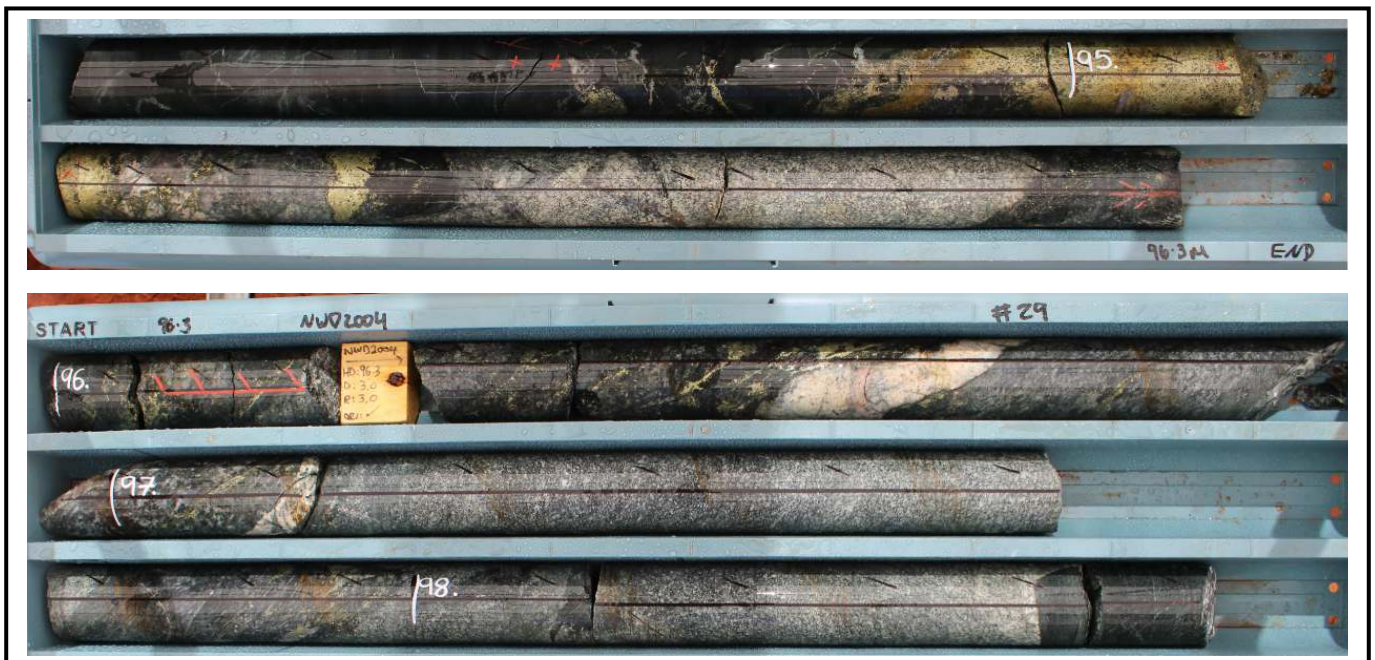


Image 9 | NWD2004: 94.8m to 98.0m; 3.2m @ 3.9% Cu chalcopyrite mineralisation including 0.7m @ 11.6% Cu from 94.8m



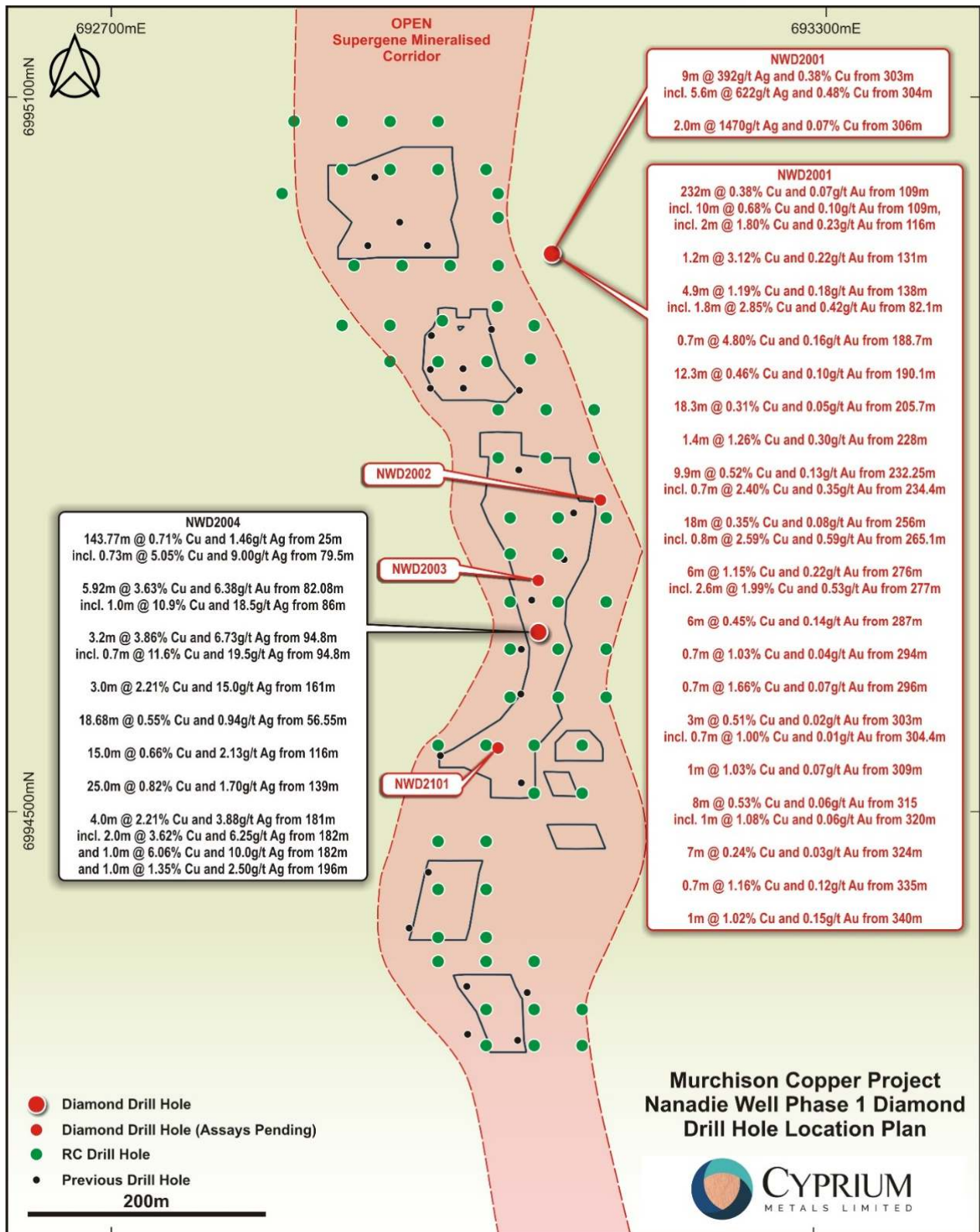


Figure 3 | Nanadie Well Phase 1 drill hole collar locations and diamond drill hole intercept highlights



## Next Quarter's Plans

Continuation of the Nifty development plans with an aim of establishing an efficient long-term producing copper mine, including:

- Continue infill drilling of the existing mineral resources
- Metallurgical test-work to optimise heap leach operating parameters
- Finalise capital cost estimate for SX-EW plant and site infrastructure
- Engage with financiers regarding project funding proposals

Review of the Nanadie Well Copper-Gold project diamond drilling assay results and of the data obtained from the downhole geophysics into the sulphide mineralised zone. The diamond drilling core will also be used for geological interpretation, geophysical logging downhole and metallurgical test-work purposes.

Mobilisation of a diamond drill rig to the Maroochydore Copper Project to obtain metallurgical test-work sample material.

## Capital Structure

The capital structure of the Company Limited is summarised as follows:

Security	Number
<b>Fully Paid Ordinary Shares</b>	
Issued Ordinary Shares	548,569,214
<b>Performance Rights</b>	
Unvested Director and employee performance rights issued at a nil exercise price and subject to performance-based vesting conditions	73,500,000
<b>Share Options</b>	
Unlisted share options exercisable at 31.41 cents each, expiring 30 March 2022	20,274,755
Unlisted share options exercisable at 30 cents each, expiring 11 December 2022	6,000,000
Unlisted share options exercisable at 35.51 cents each, expiring 30 March 2023	20,274,755
<b>Convertible Notes</b>	
Unlisted Convertible Notes at 4% per annum, maturing 30 March 2025	101,373,777

## Financial Commentary

The cash flow report (appendix 5B) for the quarter ended 30 June 2021 provides an overview of Cyprium's financial activities. Cyprium closed the quarter with cash at bank of \$50.6 million.

The Nifty copper project site incurred \$2.6 million during the June 2021 quarter, including personnel, RC and Sonic drilling, technical and base line studies, surveys, metallurgical test-work, camp refurbishment, maintenance and administration activities.

Exploration expenditure on a cash basis for the June 2021 quarter was \$0.6 million, including geophysics activities, geological analysis and fieldwork.

There was also \$0.6 million of expenditure spent on corporate, administrative and personnel costs, including \$30,000 paid for Directors fees (refer to item 6.1 of appendix 5B).

## Announcements

Investors are directed to the following Company announcements (available at [www.cypriummetals.com](http://www.cypriummetals.com)) for full details of the information summarised in this Quarterly Report:

- 30 April 2021 Notice of Annual General Meeting  
<https://cypriummetals.com/notice-of-annual-general-meeting-2/>
- 07 May 2021 Investor Webinar  
<https://cypriummetals.com/investor-webinar/>
- 11 May 2021 Nifty Operations Update  
<https://cypriummetals.com/nifty-operations-update/>
- 11 May 2021 Investor & Operational Update Presentation  
<https://cypriummetals.com/investor-operational-update/>
- 25 May 2021 Final Gold Results from Recent Nanadie Well RC Drilling  
<https://cypriummetals.com/final-gold-results-from-recent-nanadie-well-rc-drilling/>
- 31 May 2021 AGM Presentation  
<https://cypriummetals.com/agm-presentation/>
- 31 May 2021 Results of AGM  
<https://cypriummetals.com/results-of-agm-2/>
- 31 May 2021 144m Sulphide Ore Grade Copper Intercept from 25m  
<https://cypriummetals.com/144m-sulphide-ore-grade-copper-intercept-from-25-metres/>
- 24 June 2021 232m Sulphide Ore Grade Copper Intercept from 109m  
<https://cypriummetals.com/232m-sulphide-ore-grade-copper-intercept-from-109m-amended/>
- 25 June 2021 Change of Share Registry Details  
<https://cypriummetals.com/change-of-share-registry-details/>
- 06 July 2021 Site Operations Continue to Accelerate at Nifty  
<https://cypriummetals.com/site-operations-continue-to-accelerate-at-nifty/>
- 14 July 2021 Noosa Mining Investor Conference  
<https://cypriummetals.com/noosa-mining-investor-conference/>
- 27 July 2021 AMEC Investor Briefing  
<https://cypriummetals.com/amec-investor-briefing-presentation/>

This ASX announcement was approved and authorised by the Board.

### For further information:

Barry Cahill  
Managing Director

Wayne Apted  
Chief Financial Officer  
& Company Secretary

Lexi O'Halloran  
Investor and Media Relations  
[lexi@janemorganmanagement.com.au](mailto:lexi@janemorganmanagement.com.au)

T +61 8 6374 1550

E [info@cypriummetals.com](mailto:info@cypriummetals.com)

T +61 404 577 076

Follow the Company developments through our website and social media channels:





## Tenement Information

Tenement	Location	Interest
Cyprium has an 80% joint venture interest in the Cue Copper-Gold project's copper, gold and silver mineralisation however Musgrave Minerals Limited (ASX Code: MGV) has a 100% interest in primary gold deposits that are not associated with copper-gold deposits, for the following tenements at the Cue Copper Project, WA: M20/0225, M20/0245, M20/0277, M20/526, E20/0606, E20/0608, E20/0616, E20/0629, E20/0630, E20/0659, E20/0698, E20/0700, E20/0836 and P20/2279	Murchison region, WA	80%
Cyprium has a 100% interest in the Nanadie Well Copper-Gold Project, WA, which comprises the following tenements: M51/887, E51/1040, E51/1986 and E51/1987	Murchison region, WA	100%
Cyprium has a 100% interest in the Paterson Copper Project (Nifty Copper Mine and Maroochydore Copper Project), WA, which comprises the following tenements: E45/1018, E45/1840, E45/1841, E45/3011, E45/4318, M45/314, M45/315, M45/317, M45/318, M45/492, P45/2924, P45/2925, P45/2926, P45/2927, P45/3055, L45/102, L45/128, L45/143, L45/148, L45/74, L45/91, M271SA, E45/4319, E45/5705, M45/711, M45/712, M45/713, M45/745, M45/746, P45/3150, P45/3151, E45/3003, M45/752, M45/753 and M45/754	Paterson Province, WA	100%
Cyprium has a 100% interest in the Paterson Exploration Project, WA (IGO earning up to 70%), which comprises the following tenements: E45/1839, E45/2280, E45/2415, E45/2771, E45/2772, E45/2773, P45/2792, P45/2793, P45/2794, P45/2801, P45/2802, P45/2803, P45/2804, P45/2805, P45/2806, P45/2807, P45/2808, E45/3573, E45/3574, E45/3575, E45/3576, E45/3577, E45/4151, E45/4205, E45/4234, E45/4862, E45/5199, E45/5300, M45/1109, M45/1110, M45/1111, M45/1112, M45/1113, M45/1114	Paterson Province, WA	100%

### Changes during the June 2021 Quarter:

There were no changes during the quarter.

### Competent Person

The information in this report that relates to Exploration Targets, Exploration Results and the estimation and reporting of the Hollandaire Mineral Resource Estimate is an accurate representation of the available data and is based on information compiled by external consultants and Mr. Peter van Luyt who is a member of the Australian Institute of Geoscientists (2582). Mr. van Luyt is the Chief Geologist of Cyprium Metals Limited, in which he is also a shareholder. Mr. van Luyt has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person (CP). Mr. van Luyt consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the Nifty and Maroochydore 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.



## 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 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 350 km southeast of Port Hedland. Nifty contains a 2012 JORC Mineral Resources of 658,500 tonnes of contained copper. Cyprium is focussed on a heap leach SX-EW operation to retreat the current heap leach pads as well as open pit oxide and transitional material. Studies will investigate the potential restart of the copper concentrator to treat open pit sulphide material.

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

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

### Murchison Copper-Gold Projects

Cyprium has an 80% attributable interest in a joint venture with Musgrave Minerals Limited (ASX: MGX) 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 2012 JORC compliant Mineral Resources of 51,500 tonnes contained copper, which is open at depth. Metallurgical test-work has been undertaken to determine the optimal copper extraction methodology, which resulted in rapid leaching times (refer to 9 March 2020 CYM announcement, "*Copper Metal Plated*", <https://cypriummetals.com/copper-metal-plated/>).

The Nanadie Well Project is located ~650km northeast of Perth and ~75 km 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.