

28 April 2023

QUARTERLY ACTIVITIES REPORT For the guarter ended 31 March 2023

Highlights

CORPORATE

• Cash balance A\$32.4 million, investments of A\$30.1 million and no debt.

CORE BATTERY MATERIALS BUSINESS UNITS

Lithium-ion Battery ("LIB") Recycling (50% NMT via Primobius GmbH, an incorporated JV with SMS group GmbH)

- Successful completion of demonstration trial for refinery 'Hub' engineering cost study ("Hub ECS");
- Front-end engineering and design activities for Mercedes-Benz and formal plant supply agreement negotiations advanced targeting award in JunQ 2023;
- Hub ECS activities advanced for 50 tpd (18,250tpa) plant due for completion end June 2023; and
- Hilchenbach 10tpd commercial 'Spoke' ramping up targeting permitted capacity end September 2023.

Vanadium Recovery ("VRP") (72.5% NMT via Recycling Industries Scandinavia AB ("RISAB"), an incorporated JV with Critical Metals Ltd)

- SSAB 'LD Slag' Supply Agreement amended to support a 10 year, 300,000tpa Finnish operation ("VRP1");
- · Feasibility Study indicates potential lowest-quartile operating cost with a low-to-negative carbon footprint;
- Amended Shareholder Agreement and loan conversion increased Neometals RISAB equity to 72.5%; and
- Project financing, engineering and procurement activities advanced for investment decision by 30 June 2023.

Lithium Chemicals (earning into potential 50:50 JV with Bondalti Chemicals SA via Reed Advanced Materials Pty Ltd ("**RAM**") (70% NMT, 30% Mineral Resources Ltd)

- Advanced test work and engineering cost study for planned 25,000tpa lithium hydroxide operation using RAM's ELi[™] process at Bondalti's operations in Portugal. Study results announced post quarter-end;
- Salar brine concentrate sample secured for Canadian pilot testing in JunQ/SepQ 2023; and
- Advancing design of planned demonstration plant at Bondalti's Estarreja chlor-alkali operation. Procurement planned for SepQ 2023 and construction in MarQ 2024.

UPSTREAM – MINERAL EXTRACTION

Barrambie Titanium and Vanadium ("Barrambie") (100% NMT)

- Offtake term-sheet executed post quarter-end with Jiuxing for both 'direct shipping ore' ("DSO") and titanium-rich mixed gravity concentrate ("MGC") products; and
- Pre-feasibility Study update underway for DSO/MGC only operation to enable finalisation of development strategy and corporate structure to maximise and deliver inherent value of Barrambie to shareholders.



Company Overview

Neometals is an emerging, sustainable battery materials producer. The Company has developed a suite of green, battery materials processing technologies that reduce reliance on traditional mining and processing and support circular economic principles.

Neometals' three core battery materials businesses, listed below, are commercialising these proprietary low-cost, low-carbon process technologies in incorporated joint ventures:

- Lithium-ion Battery ("LIB") Recycling (50% equity) to produce nickel, cobalt and lithium from production scrap and end-of-life LIBs in an incorporated JV with leading global plant builder SMS group. The Primobius JV is operating a commercial disposal service at its 10tpd Shredding 'Spoke' in Germany and is the recycling technology partner to Mercedes Benz. Primobius' first 50tpd operation, in partnership with Stelco in Canada, is expected to reach investment decision in Q4 2023;
- Vanadium Recovery (72.5% equity) to produce high-purity vanadium pentoxide via processing of steelmaking by-product ("Slag"). Targeting a 300,000tpa operation in Pori, Finland, underpinned by a 10year Slag supply agreement with leading Scandinavian steelmaker SSAB. Finnish project investment decision with JV partner, Critical Metals, expected Q2 2023. MOU with H2Green Steel for up to 4Mt of Slag underpins a potential second operation in Boden, Sweden; and
- Lithium Chemicals (earning 35% equity) to produce battery quality lithium hydroxide from brine and/or hard-rock feedstocks using patented Eli™ electrolysis process owned by RAM (70% NMT, 30% Mineral Resources Ltd). Co-funding pilot plant and evaluation studies for a 25,000tpa operation in Estarreja with Portugal's largest chemical producer, Bondalti Chemicals S.A.



Figure 1: Location map of Neometals' Projects together with partner developments



Core Battery Materials Business Units



<u>Lithium-ion Battery Recycling</u> (Intellectual Property - NMT 50%, SMS 50%) Commercialising via Primobius GmbH, a 50:50 incorporated JV with SMS group GmbH

Primobius GmbH ("**Primobius**") is the 50:50 incorporated joint venture established in 2020 to co-fund the commercialisation of the lithium-ion battery recycling technology ("**LIB Recycling Technology**") originally developed by Neometals.

The LIB Recycling Technology recovers materials contained in LIB production scrap and end-of-life cells that might otherwise be disposed of in land fill. Current LIB recycling processes predominantly rely on high carbon emission pyrometallurgy processes. Primobius' two stage process recovers nickel, cobalt, lithium and manganese battery materials (and physically recovers metals and plastics) into saleable products that can be reused in the LIB supply chain. The LIB Recycling Technology prioritises maximum safety, environmental sustainability and product recoveries, to support the circular economy and decarbonisation.



Figure 2: High level flowsheet showing the movement of materials from Shredding and Beneficiation ('Spoke') through to refining ('Hub') stages for the LIB Recycling Technology

The LIB Recycling Technology comprises two stages:

- "Spoke" LIB receipting, sorting, discharging, disassembly together with shredding and beneficiation to physically separate all of the components of LIBs received, by metal casings, electrode foils, plastics and active materials; and
- 2. "**Hub**" Leaching, purification and crystallisation of the active materials suitable for use in production of LIB precursor, via a hydrometallurgical refining process.



Primobius' current revenue model contemplates the following sources:

- 1. LIB disposal fees (for LIBs supplied by multiple waste aggregators delivering predominantly whole modules);
- 2. Sale of products (metallic scrap, chemical intermediates & chemicals purchased by various recyclers and smelting customers); and
- 3. Equipment supply (Stelco and Mercedes) and associated technology licensing royalties.

Activity Summary

During the quarter, Primobius further progressed process development, engineering and commercial activities across the business unit. The period also marked the third quarter of revenue generation from the Hilchenbach Spoke and from front-end engineering and design services rendered to Primobius' clients in preparation for the offer and award of recycling plant supply agreements.

Significant activities comprised:

Technical

 Successful completion of a final Hub demonstration trial during the quarter enables completion of the Class 3 engineering cost study ("Hub ECS") targeted for end of June 2023. Spoke ECS (completed) and Hub ECS contemplate the development of a 50tpd integrated LIB recycling operation at a green-fields site within in an existing industrial park in Kaiserslautern, Germany. The assumed operation would process 50tpd LIB cells and modules fed to the Spoke with 12,000tpa of Black Mass to the Hub;

Commercial

- Baseload feedstock (end-of-life LIB) was secured from a German OEM for the Hilchenbach Spoke which now has sufficient feed supply for all of 2023 and continues to be ramped-up;
- Increased revenue generation from Hilchenbach Spoke via disposal fees and Black Mass product sales as well as engineering and design activities for Mercedes-Benz; and
- Ongoing business development activities to build a global pipeline of potential future recycling plants.

Corporate

- Temporary relocation of key Australian management and technical team members to Europe (including joint Primobius MD, Merrill Gray) for ongoing process development, commercial disposal operations and completion of the 'Hub' ECS; and
- Continued recruitment activities to expand the Primobius operational and management teams in line with commercial requirements.

Hilchenbach LIB Disposal Operations

The Spoke section of the demonstration plant in Hilchenbach ("**Hilchenbach Spoke**"), Germany was upgraded to provide a commercial disposal service to German OEMs in April 2022. Production is currently being ramped up to the facility's maximum licence capacity of 9tpd of LIBs.

The Hilchenbach Spoke is providing commercial LIB disposal services and the hydrometallurgical refinery 'Hub' continues to operate as a running demonstration plant. When the Hub runs discrete trials for internal flowsheet optimisation and to generate product samples, the Spoke pauses commercial operation to generate Black Mass feedstock for the Hub.

During the quarter, the Hilchenbach Spoke continued to produce intermediate mixed nickel/cobalt product ("**Black Mass**") as part of ramp-up operations. The typical LIB contains approximately 48% Black Mass which Primobius is currently selling to a number of global offtakers on a spot basis with pricing set according to nickel and cobalt content. Importantly, the Hilchenbach Spoke has switched to three shifts daily and is operating 5 days a week.



Commercial Activities

Primobius' key near-term commercial agreements are summarised below:

- A Cooperation Agreement with Mercedes-Benz's ("Mercedes") LIB recycling subsidiary LICULAR GmbH ("LICULAR")("LICULAR Cooperation") for the engineering, equipment supply and installation for a fully integrated, closed loop recycling plant ("LICULAR 10tpd Spoke" followed by "LICULAR 10tpd Hub"), a non-exclusive technology licence and long-term research collaboration (for full details refer to Neometals ASX announcement headlined "Cooperation Agreement with Mercedes Benz" released on 13th May 2022); and
- Technology licensing agreement and option agreement to purchase up to 50% of a subsidiary of Stelco Inc. ("Stelco") ("Stelco Agreements") which plans to secure large volumes of end-of-life vehicles in North America for scrap steel and recycle LIBs in a proposed 50tpd integrated operation ("Stelco 50tpd Spoke" followed by "Stelco 50tpd Hub") at Stelco's Hamilton Works, Ontario, Canada (for full details refer to Neometals ASX announcement headlined "Battery Recycling – Binding Agreements with Stelco for NA" released on 31st December 2021).

A Hub demonstration trial was undertaken during the quarter under the LICULAR Cooperation, as were front-end design activities. Primobius has commenced the procurement phase for the LICULAR 10tpd Spoke. During the quarter partner Mercedes held a ground-breaking ceremony for its new battery recycling facility in Kuppenheim, Germany. The facility will house the LICULAR 10tpd Hub and was attended by SMS Chief Technology Officer, Prof.Dr.Hans Ferkel and Primobius's Co-Managing Directors Mr Horst Krenn (SMS) and Ms Merrill Gray (NMT-Head of Recycling).



Figure 3: 3D render showing Mercedes' proposed Kuppenheim facility to house the LICULAR 10tpd Hub



The Hub demonstration trial will also provide the data for the Hub ECS which must be completed to enable the offer to Stelco of Spoke and Hub plant supply agreements. The offer of a Spoke supply agreement to Stelco (targeted SepQ 2023) will open a thirty-day window in which Primobius can exercise its option to acquire up to 50% equity in Stelco's subsidiary which holds the licence to the LIB Recycling Technology. The Stelco Spoke and Hub plants will be staged to enable the production and sale of Black Mass from Spokes during the construction and commissioning of the refinery Hub reducing overall financing requirements.

Primobius' rollout of Spokes addresses the immediate need for safe disposal and recovery of LIB materials, ahead of an absolute requirement to close-the-loop with integrated Hubs producing products used as inputs to the manufacturing of LIB precursors. Primobius is actively prosecuting its flexible approach though its three business models – as principal (Hilchenbach), a potential 50:50 joint venture with Stelco and a licensed fully integrated plant supply package to LICULAR.

Indicative Commercial Rollout Timeline



*Subject to Customer Award/Primobius and Neometals Approvals #Key Performance Indicators (KPI) as negotiated at Supply

Figure 4: LIB Recycling Indicative Timeline





<u>Vanadium Recovery</u> (NMT 100% Intellectual Property) NMT holds 72.5% equity in an Incorporated Joint Venture with Critical Metals Ltd

Neometals is commercialising its sustainable, proprietary vanadium recovery process ("**VRP Technology**") to produce vanadium products for battery and aerospace alloying applications from stockpiles of vanadiumbearing steel making by-product. Neometals is currently evaluating two distinct opportunities in Scandinavia and has ambitions to build a pipeline of suitable feedstock sources to increase future production:

- 1. 'VRP 1' (SSAB feedstocks, plant location Pori, Finland); and
- 2. 'VRP 2' (H2GS feedstock, plant location Boden, Sweden).



Figure 5: Project flowsheet proposed VRP1 processing plant at Tahkoluoto port, Pori, Finland

The vanadium recovery business offers a compelling opportunity which is underpinned by:

- Access to very high-grade vanadium feedstocks without upstream mining costs/risk/carbon footprint;
- Potential lowest-quartile operating costs (for full details refer to Neometals ASX announcement headlined "Vanadium Recovery Project Delivers Strong feasibility Results" released on 8th March 2023).
- A processing flowsheet utilising conventional equipment at atmospheric pressure, mild-temperatures and non-exotic materials of construction; and
- Likely very low or net zero greenhouse gas footprint given:
 - 1. the absence of mining and a processing route requiring the use and potential capture of CO₂; and
 - 2. potentially saleable carbonate by-product which sequesters CO₂.





VRP 1 (SSAB)

Neometals and unlisted Scandinavian-focused explorer, Critical Metals Ltd ("**Critical**"), are jointly evaluating the feasibility of recovering high-purity vanadium pentoxide (" V_2O_5 ") from high-grade vanadium-bearing steel by-product ("**Slag**") in Scandinavia. Neometals funded and managed the evaluation activities earning an initial 50% interest in an incorporated JV (Recycling Industries Scandinavia AB ("**RISAB**")) with Critical. Critical is responsible for managing government and environmental approvals for VRP1 and supporting the SSAB and H2GS relationships.

Note: An environmental permit has been granted by the Regional State Administrative Agency for Southern Finland for production of approximately 9,000tpa of V_2O_5 at the VRP1 operation.

Critical has executed a conditional supply agreement with SSAB EMEA AB and SSAB Europe OY, subsidiaries of SSAB ("**SSAB**"), a steel producer that operates steel mills in Scandinavia. Slag is a by-product of SSAB's steel making operations ("**SSAB 'LD Slag' Supply Agreement**")

Activity Summary

Technical

During the quarter, Neometals announced results of a feasibility study ("**VRP1 FS**") based on the AACE® Class 3 engineering cost study ("**VRP1 ECS**") completed by Nordic engineering group Sweco Industry OY. The VRP1 ECS confirmed the potential for lowest-quartile operating costs in a high-purity vanadium chemical operation with a low-to-negative carbon footprint (*for full details refer to Neometals ASX announcement headlined "Vanadium Recovery Project Delivers Strong Feasibility Results" released on 8th March 2023*).



Figure 6: Key project metrics from the VRP1 FS

An independent ISO-compliant life cycle assessment ("LCA") undertaken by Minviro Ltd has highlighted potential for VRP1 to be carbon negative (depending on carbon dioxide reagent source), and lower than incumbent production pathways in terms of global warming potential ("GWP"). Specifically, the LCA showed the VRP1 GWP (-4.4kg CO2-e per kg V₂O₅) comparing favourably against an operating steel and vanadium production plant in South Africa (12.0 kg CO2-e per kg V₂O₅) (for full details refer to Neometals ASX announcement headlined "Vanadium Recovery Project Delivers Strong Feasibility Results" released on 8th March 2023).



In addition to the feasibility evaluation activities, the Company has been advancing engineering and procurement alongside RISAB equity and project financing activities to enable consideration of an investment decision by 30 June 2023.

Commercial

During the quarter, Neometals announced several landmark agreements that secured The Company's initial 50% ownership and operatorship of RISAB. Key to formalising RISAB ownership was the amendment of the SSAB 'LD Slag' Supply Agreement to support a 10-year VRP1 operation with a capacity of 300,000tpa in Finland. Neometals also executed a technology licence for its Slag processing intellectual property to RISAB for a 2.5% gross sales royalty.

Under the Amended LD-Slag Supply Agreement, SSAB will supply 2 million tonnes of Slag, with RISAB having the first right to purchase additional tonnes on an as available basis. The Amended LD-Slag Supply Agreement still contains the condition that a project investment decision must be made by 30 June 2023, but removed the prior requirement to be in production by 31st December 2024. The Amended LD-Slag Supply Agreement provided a reasonable basis for the finalisation and release of the VRP1 FS based on a 300,000tpa feed rate (for full details refer to Neometals ASX announcement headlined "Neometals now Controlling shareholder in Vanadium Recovery Project SPV" released on 2nd March 2023).



Figure 7: Aerial schematic showing location for the proposed VRP1 processing plant at Tahkoluoto port, Pori, Finland

Separately, post the end of the quarter, Neometals and Critical converted their shareholder loans which resulted in Neometals' equity interest in RISAB increasing to its current 72.5%. Conversely, Critical, via it subsidiary, moved from 50% to 27.5% ownership of RISAB.





Corporate

RISAB has engaged leading Nordic investment banks SEB and Aventum Partners to lead the equity and project financing processes. Strong interest has been received from investment and commercial banks in Europe. Additionally, RISAB's loan funding application with the European Investment Bank ("**EIB**") entered the final appraisal stage following delivery of lenders technical assessment and independent technical expert reports.

MarQ 2023	JunQ 2023	SepQ 2023	DecQ 2023	Q1 2026
Finalise New Supply Agreement with SSAB Complete Feasibility Study & LCA	Term Sheet for Offtake Binding Term Sheets for Project Financing Binding Commitments for	RISAB pre-payment for 700kt of slag stockpiled at Lulea* Commence civil works for slag storage	First slag being transported to Tahkolouto** Commence civil works for processing plant	First production from the plant**
Execute SHA for 50% of VRP SPV (RISAB) & 🗹 Technology Licence	RISAB Equity Raise RISAB making a positive FID on or before 30 June**			

* Pre-payment to be paid within 72 hours after the Buyer's Positive Investment Decision

** Subject to FID, approvals and finance

Figure 8: VRP Indicative Timeline

VRP 2 (H2GS)

In MarQ 2021, Neometals announced that Critical (via RISAB) entered into a non-binding memorandum of understanding with H2 Green Steel AB ("H2GS") ("H2GS MoU"). The H2GS MoU outlines an evaluation framework on a potential new source of vanadium bearing Slag that could underpin a second, larger vanadium production operation ("VRP2") capable of processing 400,000tpa of Slag. The H2GS MoU also outlines key commercial terms for a potential Slag supply agreement.

Activity Summary

No activity during the quarter.

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Figure 9: Map showing potential Vanadium Recovery Plants (Pori (SSAB Feed) and Boden (H2GS Feed)) and SSAB Slag stockpiles



Lithium Chemicals Resources Ltd 30%)

(Intellectual Property held in Reed Advanced Materials PL – NMT 70%, Mineral Reed Advanced Materials PL ("RAM") Earning into 50:50 JV with Bondalti Chemicals SA

Neometals, through RAM, is commercialising its proprietary process (ELi Processing Technology ("ELiTM")) to produce lithium hydroxide from lithium chloride solutions using electrolysis. A feasibility study in 2016 indicated the potential for ELi™ to significantly reduce the cost and carbon footprint associated with consumption and transport of carbon-intensive reagents used in conventional lithium processes.

Neometals has used Eli™ to convert lithium chloride solutions from both natural spodumene and brine feedstocks at semi-pilot scale and has the flexibility to produce lithium hydroxide and lithium carbonate at a significantly lower operating costs. ELi's key economic advantage lies in the potential to replace costly imported reagents for traditional carbonation and causticising processing steps with electricity and low-cost internally generated reagents, RAM holds 14 granted patents in the hard rock and brine producing countries and has a further 16 pending national phase patents.



Figure 10: Schematic showing a comparison of the conventional flowsheet for the production of lithium hydroxide from brines vs the patented Eli™ process

RAM can potentially deploy ELi[™] as principal or in joint venture with other partners, to generate revenue from processing of lithium raw materials. Further, the business model also accommodates licensing ELi™ in return for royalty payments.



Bondalti (Estarreja) Project

In the December quarter 2021, RAM entered into a binding Co-operation Agreement ("**ELi Co-operation**") with Portugal's largest chlor-alkali producer, Bondalti. Bondalti is part of the Jose De Mello Group, one of Portugal's largest conglomerates, family owned and founded in 1898.

Bondalti and RAM are co-funding evaluation activities required for a decision to form a 50:50 incorporated joint venture ("**JVCo**") to construct and operate a lithium refinery ("**Estarreja Lithium Refinery**" or "**ELR**"") at Bondalti's chlor-alkali operations in Estarreja, Portugal. The evaluation activities include pilot testing and completion of a feasibility study ("**ELi™ Feasibility Study**"). Upon completion of the Eli™ Feasibility Study, a decision to incorporate the JVCo will be made to enable the construction of a Demonstration Plant and commencement of the Front-End Engineering and Design Study ("**ELi™ FEED Study**"). Upon incorporation RAM issue JVCo a royalty free licence that is exclusive in the territory of the EU Patent Treaty.

Activity Summary

Technical

- Advanced brine purification and electrolysis bench-scale testing in Canada under supervision by RAM technical staff to confirm process parameters suitable for the feed source for pilot trials commencing in JunQ 2023;
- Advanced engineering cost study activities for commercial ~25,000tpa lithium hydroxide operation using RAM's ELi[™] process at Bondalti's Estarreja chlor-alkali plant in Portugal. On track for completion in JunQ 2023; and
- Engineering design work underway for a demonstration plant planned to be constructed in Portugal in FY 2024.

Commercial

- Commercial dialogues were progressed with aspiring and existing suppliers of lithium brine concentrates to develop terms of supply to the Estarreja Lithium Refinery; and
- Commercial discussions with potential lithium hydroxide offtake partners.

JunQ 2023	SepQ 2023	DecQ 2023	MarQ 2024	JunQ 2024
Complete Bench-	Complete Pilot	Complete ECS	Commence	Complete
scale Trials	Trials	update to AACE	construction of	construction of
	Modelling pilot	Class 3 Study	Demo Plant	Demo Plant
Complete AACE	results	Decision to	Shin Demo Trial	Commence
Class 3 ECS by	Tesuits	Incorporate	feedstocks to	Demonstration
Primero	Demo Plant long	Bondalti JV *	Portugal	Trials
	lead items*		3	
Receipt of Pilot	Mandan avaluation			Appoint Class 2
Trial brine	Vendor evaluation			Study Contractors*
feedstocks,	for Class 2 Study			
Canada				
Commence Pilot				
trials. Canada				

*Subject to Steering Committee Approvals





Upstream – Mineral Extraction



Barrambie Titanium/Vanadium Project (Neometals 100%)

The Barrambie Vanadium and Titanium Project in Western Australia ("Barrambie") is one of the largest vanadiferous-titanomagnetite ("VTM") Mineral Resources globally (280.1Mt at 9.18% TiO2 and 0.44% V₂O₅)*, containing the world's second highest-grade hard rock titanium Mineral Resource (53.6Mt at 21.17% TiO₂ and 0.63% V₂O₅) and high-grade vanadium resource (64.9Mt at 0.82% V₂O₅ and 16.9% TiO₂) subsets (referred to as the Eastern and Central Bands respectively) based on the latest Neometals 2018 Mineral Resource Estimate.

Barrambie is located approximately 80km north-west of Sandstone in Western Australia and the Mineral Resource is secured under a granted mining lease. Neometals secured environmental approval in 2012 to mine and construct a 3.2 Mtpa processing plant (Ministerial Statement 911), extended the timeframe for implementation in 2019 (Ministerial Statement 1119) and is currently in the process of securing a further extension of the timeframe for project implementation. The project also has a granted mining proposal to extract approximately 1.2Mtpa of mineralisation.

Neometals has invested in excess of \$A40 million in the acquisition, exploration and evaluation of Barrambie since 2003. The Company has in more recent times maintained a primary focus on recovering a titanium product from Barrambie to realise maximum value for shareholders.

A 2021 Neometals memorandum of understanding regarding binding take-or-pay product offtake ("Offtake Agreement") with Jiuxing Titanium Materials (Liaonging) Co. Ltd ("Jiuxing MoU") ("Jiuxing") has progressed to term sheet execution ("Term Sheet"). Specifically, post the end of the quarter, Neometals announced it had executed an offtake Term Sheet for both Direct Shipping Ore ("DSO") and titanium-rich mixed gravity concentrates ("MGC"). The term Sheet outlines key principles that will form the basis for execution the Offtake Agreement**.

Jiuxing is one of the leading chloride-grade titanium slag producers in China, and is a key supplier to BAOTi HUASHEN TITANIUM INDUSTRY CO., LTD., a joint-stock enterprise controlled by BAOTi. BAOTi Huashen is also the most advanced sponge titanium full process large-scale smelting enterprise in China.

Activity Summary

Technical

During the Dec22 guarter, Neometals announced the successful completion of an Association for the Advancement of Cost Engineering ("AACE") Class 4 +/- 25% pre-feasibility study ("Barrambie PFS") for Barrambie during the period. Following closely behind smelting trial results, the PFS delivered compelling financial metrics***.

The Barrambie PFS assumes a mine, crush, mill and beneficiate ("CMB") option at Barrambie on predominantly Eastern Band titanium-rich mineralisation to produce a MGC (see Figure 13). The Barrambie PFS assumes MGC would then be subject to a low-temperature reduction roast ("LTR") and magnetic separation would occur at a second site alongside the Dampier to Bunbury Gas Pipeline east of Geraldton to produce separate ilmenite and iron-vanadium concentrate streams.

for full details refer to ASX announcement headlined "Barrambie Project - Mineral Resource Update" released on 17 April 2018 and Table 1 (Appendix 1) ** for full details refer to ASX announcements headlined "Offtake Term sheet with Jiuxing Titanium Executed" released on 20th April 2023 *** for full details refer to ASX announcement headlined "Barrambie Titanium – Robust PFS Results" released on 17th November 2022





Figure 12: Simplified overview of flowsheets investigated in Barrambie PFS



Figure 13: 3D Representation of Barrambie CMB Site



Commercial

Successful smelting trials on Barrambie mineral concentrate at Jiuxing's commercial production facility ("Jiuxing Smelting Trials") represented the final stage of technical due diligence required for Jiuxing and Neometals to negotiate a formal offtake term sheet which was executed subsequent to the end of the quarter ("Barrambie Offtake Term Sheet"). The Barrambie Offtake Term Sheet outlines key principles that will form the basis for a binding take-or-pay offtake agreement for both direct shipping ore ("DSO") and MGC. The Barrambie PFS is now being updated to reflect the proposed development of an initial DSO/MGC only operation ("Barrambie Updated PFS") (for full details refer to ASX announcement headlined "Offtake Term Sheet with Jiuxing Titanium Executed" released on 20th April 2023).

The outcomes of the trials have also increased interest from Chinese and Western titanium producers for offtake of both MGC and ilmenite products. Data from the smelting trial and the Barrambie PFS and Updated PFS will be used by potential mining, crushing, and screening contractors for a potential DSO operation and 'build-own-operate-transfer' partners for the planned CMB plant at Barrambie. This development model was used successfully by Neometals and its partners to develop its former Mt Marion Lithium Project in 2015, which is now the world's second largest producer of spodumene (hard-rock lithium).

High quality titanium feedstocks are in strong demand notwithstanding the current global economic conditions, the current prices from Fastmarkets, are provided below.



Figure 14: Upward pricing trend for ilmenite. Ilmenite is a 'benchmarked' feedstock that downstream titanium processors use for titanium metal and pigment applications. Neometals could also produce ilmenite via its LTR process. Source: Fastmarkets 1 April 2023



Corporate

In October 2019, Neometals entered a memorandum of understanding with Chinese research organisation, IMUMR, to jointly evaluate the development of Barrambie ("IMUMR MoU"). Given changes since 2019 to Neometals' strategic direction, the cooperation is no longer applicable and the IMUMR MoU has been mutually terminated by the parties. Neometals acknowledges the important work carried out by IMUMR and is grateful for its efforts to progress the Barrambie project.

In parallel with its evaluation and commercial activities, Neometals continues to assess the optimal strategy to return Barrambie value to shareholders, to this end Azure Capital has been appointed corporate advisor.

MarQ 2023	JunQ 2023	SepQ 2023	DecQ 2023	1H 2024
Commence Variability Test work	Complete Project Strategy/ Corporate Structure Review Conditional Term Sheet for Offtake of MGC	Formal Offtake Agreement* for Offtake for MGC	Complete Variability Studies Vendor selection for AACE Class 3 ECS section of DFS and/or CMB plant BOOT contract*	Commence DFS and/or BOOT

*Subject to Board Approval





Corporate

FINANCIAL

Hannans Limited (ASX:HNR) (Hannans) (Yilgarn Nickel/Lithium/Gold/Battery Recycling)

As at 31 March 2023 Neometals held 879,812,014 ordinary fully paid shares (~26% of the issued capital) in Hannans on an undiluted basis. Hannans holds exclusive technology licences to Neometals' original LIB Recycling Technology in Italy and the Balkans, a non-exclusive licence in the United Kingdom and it is earning a 50% interest in an exclusive licence for Scandinavia held by Critical Metals.

Critical Metals Limited (Unlisted, Scandinavian Lithium/Cobalt/Base Metals)

Neometals holds 19% of unlisted public company Critical Metals Ltd, a company which holds an exclusive licence to Neometals' original LIB Recycling Technology in Scandinavia and 27.5% interest in RISAB which is developing VRP's 1 and 2.

Other Investments

The market value of the Company's other investments as at 31 March 2023 totalled \$13.2 million.

Finances (unaudited)

Cash and term deposits on hand as of 31 March 2023 totalled A\$32.4 million, including \$0.2 million in restricted use term deposits supporting contractual obligations. The Company has net receivables and investments totalling approximately \$31 million.

Related Party payments for the quarter outlined in the ASX Appendix 5B released contemporaneously at section 6.1 total \$289,000 and are made up of Director fees and superannuation.

Issued Capital

The total number of shares on issue as at 31 March 2023 was 552,741,176.

Authorised on behalf of Neometals by Christopher Reed, Managing Director.

ENDS

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Compliance Statement

The information in this report that relates to Mineral Resource Estimates for the Barrambie Vanadium/Titanium Project is extracted from the ASX Announcement listed below, which is also available on the Company's website at www.neometals.com.au.

17/04/2018 Barrambie – Updated Barrambie Mineral Resource Estimate

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified form the original market announcements.



APPENDIX

Appendix 1: Global Resource

Table 1: Barrambie Mineral Resource Estimate, April 2018*

	Tonnes (M)	TiO ₂ (%)	V ₂ O ₅ (%)
Indicated	187.1	9.61	0.46
Inferred	93.0	8.31	0.40
Total	280.1	9.18	0.44
High Gra	ide V ₂ O ₅ Resourc	e (at 0.5% V ₂ O	₅ cut-off) ²
	Tonnes (M)	TiO ₂ (%)	V ₂ O ₅ (%)
Indicated	49.0	16.93	0.82
Inferred	15.9	16.81	0.81
Total	64.9	16.90	0.82
Hig	h TiO ₂ Resource	(14% TiO ₂ cut-	off) ²
	Tonnes (M)	TiO ₂ (%)	V ₂ O ₅ (%)
Indicated	39.3	21.18	0.65
Inferred	14.3	21.15	0.58
Total	53.6	21.17	0.63



Appendix 2: Tenement Interests

As at 31 March 2023, the Company has an interest in the following projects and tenements in Western Australia.

Project Name	Licence Name	Beneficial Interest	Status
Barrambie	M57/173-I	100%	Live
Barrambie	E57/769-I	100%	Live
Barrambie	E57/770-I	100%	Live
Barrambie	E57/1041-I	100%	Live
Barrambie	E57/1220	100%	Pending
Barrambie	E57/1244	100%	Pending
Barrambie	E57/1245	100%	Pending
Barrambie	E57/1379	100%	Pending
Barrambie	E20/1030	100%	Pending
Barrambie	E20/1037	100%	Pending
Barrambie	L57/0030	100%	Live
Barrambie	L57/0064	100%	Pending
Barrambie	L57/0065	100%	Pending
Barrambie	L20/0055	100%	Live
Barrambie	L20/0080	100%	Live
Barrambie	L20/0081	100%	Live
Yellowdine	E77/2809	100%	Pending
Queen Victoria Rocks	E15/1416	100%	Live



Changes in interests in mining tenements Interests in mining tenements acquired or increased

Project Name	Licence Name	Acquired or Increased
Barrambie	E57/1379	Application

Interests in mining tenements relinquished, reduced, or lapsed

Project Name	Licence Name	Acquired or Increased
N/A	N/A	N/A

About Neometals Ltd

Neometals is an emerging, sustainable battery materials producer. The Company has developed a suite of green battery materials processing technologies that reduce reliance on traditional mining and processing and support circular economic principles.

Neometals' three core battery materials businesses, listed below, are commercialising these proprietary, low-cost, low-carbon process technologies in incorporated joint ventures:

- Lithium-ion Battery ("LIB") Recycling (50% equity) to produce nickel, cobalt and lithium from production scrap and end-of-life LIBs in an incorporated JV with leading global plant builder SMS group. The Primobius JV is operating a commercial disposal service at its 10tpd Shredding 'Spoke' in Germany and is the recycling technology partner to Mercedes Benz. Primobius' first 50tpd operation, in partnership with Stelco in Canada is expected to reach investment decision in Q4 2023;
- Vanadium Recovery (72.5% equity) to produce high-purity vanadium pentoxide via processing of steelmaking by-product ("Slag"). Targeting a 300,000tpa operation in Pori, Finland, underpinned by a 10year Slag supply agreement with leading Scandinavian steelmaker SSAB. Finnish project investment decision with JV partner, Critical Metals, expected Q2 2023. MOU with H2Green Steel for up to 4Mt of Slag underpins a potential second operation in Boden, Sweden; and
- Lithium Chemicals (earning 35% equity) to produce battery quality lithium hydroxide from brine and/or hard-rock feedstocks using patented ELi[™] electrolysis process owned by RAM (70% NMT, 30% Mineral Resources Ltd). Co-funding pilot plant and evaluation studies for a 25,000tpa operation in Estarreja with Portugal's largest chemical producer, Bondalti Chemicals S.A.