

Quarterly Activities Report For the quarter ended 30 June 2024

Highlights

CORPORATE

- Cash balance of \$9.8 million: Investments, receivables and inventories of \$15.5 million and no debt.

OPERATIONS

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

- Primobius continued construction of an integrated 2,500tpa lithium-ion battery (“LiB”) recycling facility for Mercedes-Benz at Kuppenheim, Germany; and
- Installation of Stage 1 shredding ‘Spoke’ section of Mercedes Pilot Plant materially complete.

PRE-COMMERCIAL TECHNOLOGIES

Lithium Chemicals (70% NMT, 30% Mineral Resources Ltd via Reed Advanced Materials Pty Ltd (“RAM”))

- The patented ELi™ Process has the potential to deliver users a step-change in the cost to convert lithium brines to lithium hydroxide or carbonate through electrolysis rather than chemical precipitation; and
- Commenced the long-duration (1,000hr) pilot-scale electrolysis trials on natural South American brine to increase confidence in power consumption, membrane life and lithium product quality assumptions to support ongoing commercial partner selection and technology licensing activities.

Vanadium Recovery (100% NMT via Avanti Materials Ltd)

- The patent-pending Vanadium Recovery Process has the potential to produce high-purity, low-cost vanadium from the recycling of steel slag by-products which practically eliminates carbon footprint; and
- Assisting first commercial project vehicle, RISAB (88% NMT) to procure external funding to support a new equity financing process and advance technology licensing activities.

RESEARCH AND DEVELOPMENT

- Secured an option to acquire 80% of a private US company developing a hydrometallurgical process to selectively recover precious metals from industrial waste streams; and
- Commenced second phase of trials testing preferred feedstock, reagent regime and recovery techniques identified in first phase of trials, with completion and results expected in August 2024.

UPSTREAM MINERAL PROJECTS

Barrambie Titanium and Vanadium (“Barrambie”) (100% NMT)

- Commenced preparation of an Exploration Target for gold in parallel with preparations for asset divestment.

Company Overview

Neometals facilitates sustainable critical material supply chains and reduces the environmental burden of traditional mining in the global transition to a circular economy.

The Company is commercialising a portfolio of sustainable processing solutions that recycle and recover critical materials from high-value waste streams.

Neometals' core focus is on the commercialisation of its patented, **Lithium-ion Battery ("LiB") Recycling technology (50% NMT)**, under a plant supply and technology licensing business model. Primobius GmbH is the 50:50 incorporated JV with 150-year-old German plant builder, SMS group GmbH, that is commercialising the technology. Primobius is building a 2,500tpa recycling plant for Mercedes-Benz under a long-term Cooperation Agreement. It also operates its own LiB disposal service in Germany and plans to offer its first commercial 21,000tpa plant to North American licensee, Stelco, in JunQ 2025.

Neometals is also developing two advanced battery materials technologies for commercialisation under low-risk, low-capex technology licensing business models:

- **Lithium Chemicals (70% NMT)** – Patented ELi™ electrolysis process, co-owned 30% by Mineral Resources Ltd, to produce battery quality lithium hydroxide from brine and/or hard-rock feedstocks at lowest quartile operating costs. Pilot scale test work and Engineering Cost Study update planned for completion in DecQ 2024; and
- **Vanadium Recovery (100% NMT)** – Patent pending hydrometallurgical process to produce high-purity vanadium pentoxide from steelmaking by-product ("**Slag**") at lowest-quartile operating cost and carbon footprint.

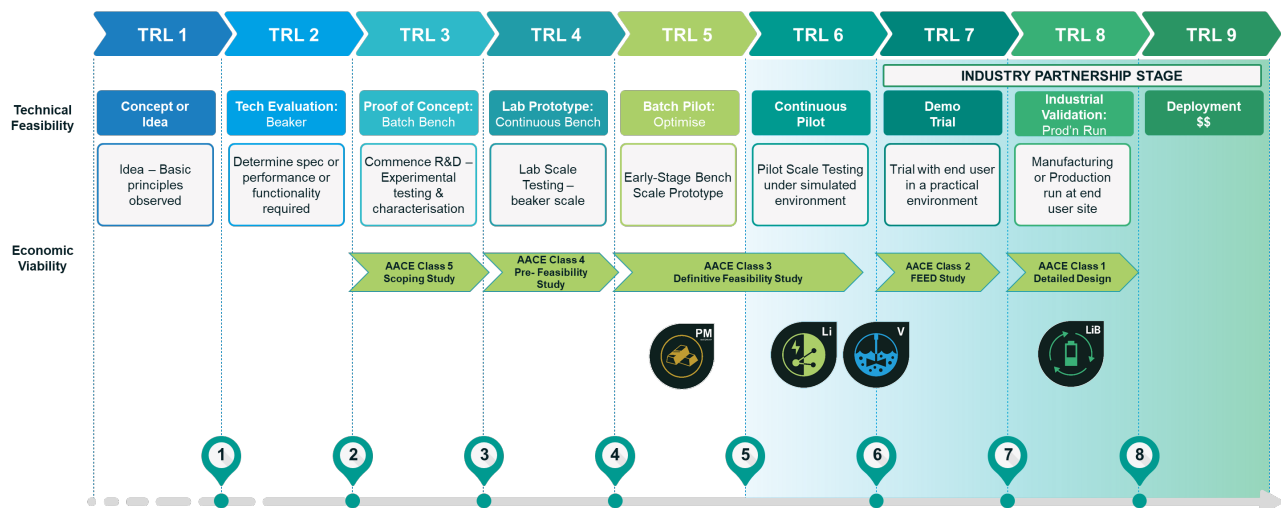


Figure 1 – Neometals' Technology Projects and Technology Readiness Level Commercialisation System.

OPERATIONS



Lithium-ion Battery Recycling

(Intellectual Property via ACN 630 589 507 Pty Ltd - NMT 50%, SMS 50%)

(Plant construction via Primobius GmbH, NMT 50% SMS group GmbH 50%)

Primobius GmbH (“**Primobius**”) is the incorporated joint venture established in 2020 to commercialise Neometals’ lithium-ion battery (“**LiB**”) recycling technology (“**LiB Recycling Technology**”). The co-owner is SMS group GmbH, a 150-year old German plant builder, with in excess of 14,000 employees globally and fabrication facilities in Europe, USA, India and China.

Primobius was granted an exclusive licence from Neometals’ LiB Recycling Technology holding company, ACN 630 589 507 Pty Ltd (“**ACN 630**”) to supply LiB recycling plants incorporating the patented flowsheet. Primobius will pay royalties to ACN 630 where it operates as principal and will also pass through royalties from plant supply and technology licensing arrangements. ACN 630 is the ultimate beneficiary of five (5) third party technology licences issued to date. The structure is designed to flow plant supply margin and technology royalties separately to co-owners.

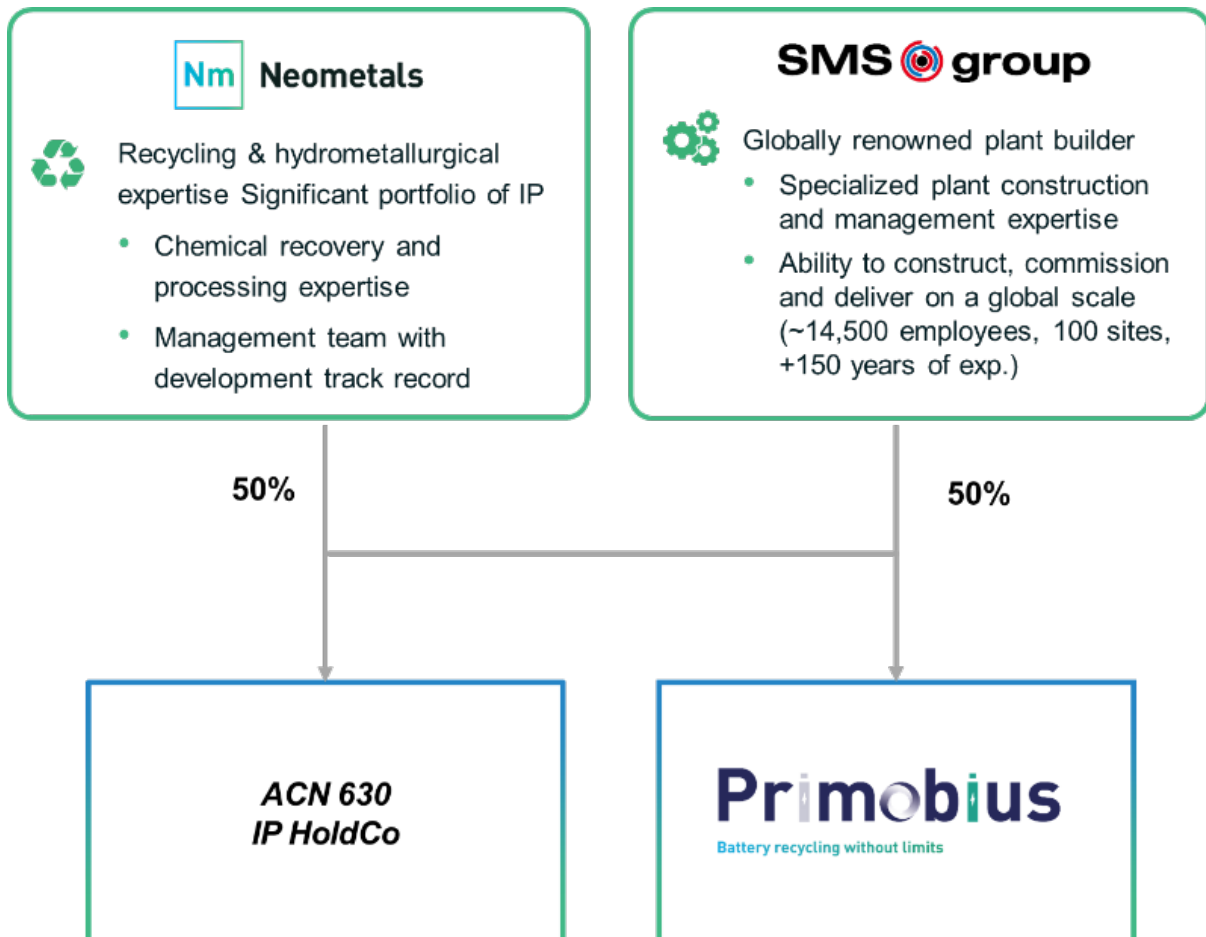


Figure 2 – Technology royalty and plant supply margins flow chart.

Intellectual Property and Status

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 pyrometallurgical 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.

During the quarter, ACN 630 was granted an additional national phase patent in Indonesia. Five (5) patents have now been granted with twelve (12) other national phase patents at various stages of prosecution globally.

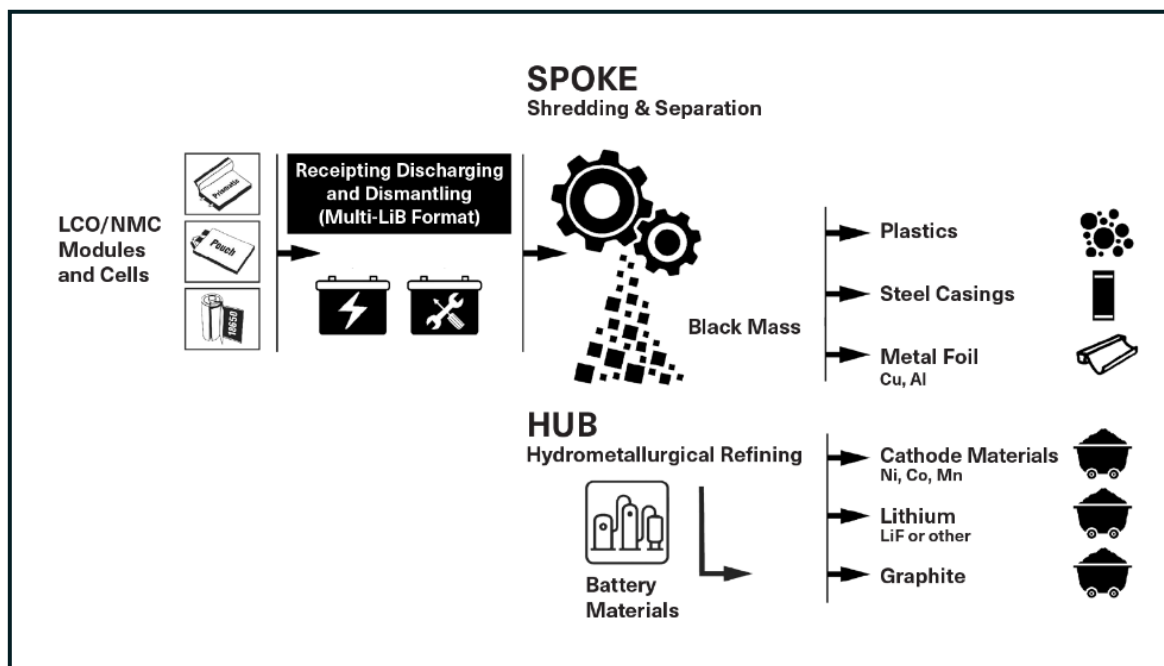


Figure 3 – High level flowsheet showing the movement of materials from Shredding and Beneficiation ('Spoke') through to refining ('Hub') stages for the LiB Recycling Technology.

Commercialisation Status

The LiB Recycling Technology is at Technology Readiness Level (TRL) 8: Industrial Validation.

Primobius / ACN 630's current business model is targeting revenue from:

1. Gate fees and product sales from its LiB Disposal Operation in Hilchenbach, Germany;
2. Mechanical equipment and plant supply agreements (e.g. Mercedes-Benz Plant); and
3. Royalties from the sale of products from future commercial plant supply agreements.

Hilchenbach Disposal Operation

Primobius upgraded the Spoke section of its demonstration plant in Hilchenbach, Germany (“**Hilchenbach Spoke**”) to provide a commercial LiB disposal service to the German EV and lithium battery supply chain. Primobius receives a gate fee to accept batteries for disposal. The Hilchenbach Spoke produces an intermediate mixed nickel/cobalt product (“**Black Mass**”) and a mixed copper/aluminium product (“**Black Copper**”) which are sold on a spot basis with pricing set according to nickel/cobalt and copper content respectively.

During the quarter the Primobius Board approved an investment in equipment to increase throughput to its approved limit of 9 tonnes per day. This will require the hydromet refinery to be decommissioned and stored for future utilisation to provide sufficient space for additional equipment.

Mechanical Equipment and Plant Supply

Primobius entered into a Co-operation Agreement with Mercedes-Benz (“**Mercedes**”) (“**Mercedes Cooperation**”) in March 2022. Under the Mercedes Cooperation, Primobius entered into a five (5)-year research collaboration aimed at jointly developing an industrial-scale solution for Mercedes¹. Primobius accepted purchase orders from Mercedes for the Spoke section of the plant in August 2023 and the Hub section in January 2024.

During the quarter, Primobius continued the installation of the Spoke to practical completion and the fabrication of the Hub section of the Mercedes Pilot Plant.



Figure 4 – Mercedes-Benz LiB Recycling Building, Kuppenheim Germany.



Figure 5 – Part of the Integrated LiB Plant installed by Primobius.

Technology Licensing

- Technology licensing and joint venture option agreements are in place with a subsidiary of Stelco Inc. (“**Stelco**”) (“**Stelco Agreements**”). The Stelco Agreements allow Primobius to acquire a 25-50% equity interest in the technology licensee at any time up to 30 June 2025².
- Three (3) exclusive licences have been issued for Scandinavia, the Balkans and Italy and one non-exclusive licence to the UK. Neometals is the largest individual shareholder in the licensees and ACN 630 is entitled to receive a 10% gross revenue royalty from the technology licences.

¹ For full details refer to Neometals ASX announcement headlined “Cooperation Agreement with Mercedes Benz” released on 13th May 2022

² For full details refer to Neometals ASX announcement headlined “Primobius Commercial Update” released on 22nd December 2023

Commercial

- Primobius signed a MoU with NEO Mobility Asia Company Ltd (“**Neo Mobility**”), for the potential supply of battery recycling equipment and services. NEO Mobility is a joint venture of MGC-Asia Green Tech Company Limited, an affiliate of Millennium Group Corporation (Asia) Public Company Limited (“**MGC**”) and Arun Plus Mobility Holding Company Limited, an affiliate of PTT Public Company Limited (“**PTT**”).
- Through Neo Mobility, MGC and PTT are aiming to build up an ecosystem that also includes battery recycling in Southeast Asia and are seeking to collaborate with Primobius as the technology provider.

Corporate

- Continued recruitment activities to expand the Primobius technical, operational, commercial and management teams in line with corporate milestones associated with offering mechanical plant and equipment package supply contracts.

PRE-COMMERCIAL TECHNOLOGIES



Lithium Chemicals

(Intellectual Property via Reed Advanced Materials Pty Ltd (“RAM”) – NMT 70%, Mineral Resources Ltd 30%)

RAM is an incorporated joint venture commercialising the patented ELi™ Process (“**ELi™**”) which produces lithium hydroxide and carbonate from lithium chloride solutions using electrolysis. RAM has successfully converted lithium chloride solutions from both natural spodumene and brine feedstocks into battery quality lithium hydroxide at semi-pilot scale. ELi™ has the flexibility to produce lithium hydroxide and/or lithium carbonate at potentially significantly lower operating cost and carbon footprint compared to conventional production processes. ELi’s key economic advantage lies in the potential to replace costly, imported bulk chemical reagents with electricity and low-cost internally generated reagents.

Intellectual Property Status

RAM now holds nineteen (19) granted patents in hard rock and brine producing countries and has a further fourteen (14) pending national phase patents at various stages of prosecution globally.

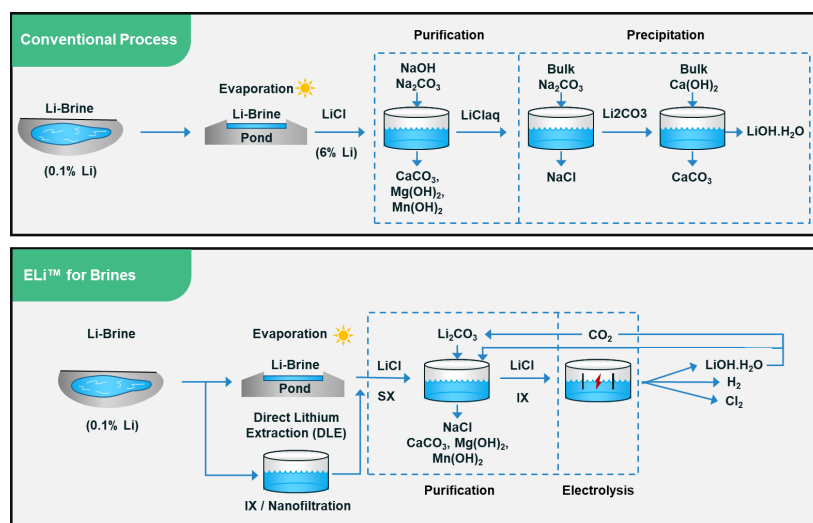


Figure 6 – Schematic showing a comparison of the conventional flowsheet for the production of lithium hydroxide from brines with the patented ELi™ process.

Commercialisation Status

The ELi™ Process is at TRL 6: Batch Pilot. RAM's current business model is to generate royalties from licensing the ELi™ Process to lithium brine and hard-rock operators, developers and processing equipment suppliers.

RAM is completing pilot scale trials on a natural brine provided by the owners of an operating South American lithium operation. RAM successfully concluded the first stage purification trials in 2023. This quarter RAM completed the second stage electrolysis of the purified lithium chloride. The final stage of the trials will evaporate and crystallise the lithium hydroxide catholyte solution produced in the electrolysis trials into lithium hydroxide monohydrate, for assessment and evaluation by LiB cathode producers.

Technical

- The long-duration (1000hr) electrolysis component of the ELi™ Pilot was undertaken in the USA at the Electrosynthesis Company Inc, the associated testing facility of RAM's proposed electrolyser vendor, NORAM. The electrolysis campaign will provide data to increase confidence in the expected power consumption, membrane performance and product quality assumptions in the 2023 Engineering Cost Study.
- The results are expected in the September quarter and will be incorporated into a review of the 2023 Engineering Cost Study (ECS Review).

Commercial

- RAM will use the results of the ELi™ Pilot and the ECS Review to advance its commercial partner selection and technology licensing activities; and
- RAM is funded to complete the aforementioned activities planned for completion in December 2024.



Vanadium Recovery
(Intellectual Property via Avanti Materials Ltd – NMT 100%)
Vanadium Recovery Project 1 via Recycling Industries Scandinavia AB (“RISAB”) – 88% NMT

Neometals has developed a proprietary sustainable vanadium recovery process (“**VRP Technology**”) that produces vanadium products for battery and aerospace alloying applications from stockpiles of vanadium-bearing steel making waste. The VRP Technology offers:

- A processing flowsheet utilising conventional equipment at atmospheric pressure, mild temperatures, and non-exotic construction materials; and
- Potential lowest-quartile operating costs³ and carbon-footprint from processing steelmaking waste (“**Slag**”), eliminating the cost, risks and environmental impact of mined upstream feedstocks.

Intellectual Property Status

Neometals’ Vanadium Recovery IP holding company, Avanti Materials Ltd, has eighteen (18) pending national phase patents for the VRP Technology across two patent families, with two patents at examination stage.

Commercialisation Status

The VRP Process is at TRL 6: Continuous Pilot. The current business model is to generate royalties from licensing the VRP Process to steel slag producers.

Vanadium Recovery Project 1 (“VRP1”) – Finland

RISAB was incorporated to evaluate the feasibility of recovering high-purity vanadium pentoxide (“**V₂O₅**”) from high-grade vanadium-bearing steel Slag in Scandinavia. In March 2023, Neometals announced the results of a feasibility study that confirmed the potential for lowest-quartile operating costs with a low-to-negative carbon footprint³. In the ensuing 6 months the vanadium price fell more than 50% and equity financing could not be secured. Neometals advised the market in October 2023 that it could not commit to a positive final investment decision on VRP1 and would pursue commercialisation through a technology licensing business model.

Technical

No technical activity was undertaken during the quarter.

Commercial

During the quarter, Neometals assisted RISAB to explore value realisation options and advanced discussions with potential licensees of the VRP Technology. More specifically:

- RISAB applied for grant funding from EIT RawMaterials GmbH, which is co-funded by the European Union, to advance Europe’s transition into a sustainable economy. The application under the ‘Booster 2024 Program’ will enable a new equity financing process to be managed by leading Nordic bank, SEB. New financiers for the equity required to execute the project will become the majority equity holders of RISAB.

³ For full details refer to Neometals ASX announcement headlined “Vanadium Recovery Project Delivers Strong Feasibility Results” released on 8th March 2023

- RISAB entered a non-binding MoU with the German Steel producer Salzgitter Flachstahl GmbH regarding collaboration towards potential future arrangements for the supply of Slag.

Corporate

During the quarter Neometals increased its equity in RISAB from 72.5% to 88% by subscribing for new shares.

RESEARCH AND DEVELOPMENT



Precious Metals Recovery

Option to acquire 80% Precious Metals Recovery, LLC (“PMR”)

Neometals is evaluating the acquisition of a majority stake in a proprietary precious recovery process (“**PMR Technology**”) and associated processing plant (**PMR Pilot**) that potentially recovers previous metals from industrial waste streams.

The opportunity to acquire an advanced, TRL 5: Batch Pilot, technology with potential to scale and generate positive cashflow from hedge-able commodities uncorrelated with battery materials whilst keeping with a focus on recycling/recovery of high-value waste streams, is attractive.

The PMR option structure and term allows Neometals’ technical team to complete its due diligence on PMR and its business (including the PMR Technology). The PMR Pilot is located in Colorado, USA and represents the culmination of nearly two years of research and development activities and can process batches up to 250 kilograms in size. The pilot plant is designed to process 2 tonnes per day and is currently capable of processing 0.5 tonnes per day. Industrial waste feedstocks are purchased from third parties on an as required basis.

During the quarter, the Neometals technical team completed the first and second phases of a metallurgical test work program. The first phase tested multiple feed sources with varying reagent and final product recovery regimes. Approximately 4.28 tonnes from two purchased feedstocks were processed in 10 campaigns totalling 24 batches of 120-245 kilograms. There was significant variability of recovered metal. However, the results were sufficiently encouraging to proceed with a second test work program to confirm the repeatability of the most successful feedstock/reagent/recovery regimes. The leaching and primary recovery stage of the program was completed during the quarter with the final recovery through external refining outstanding. Final refinery outturns are expected, and results will be reported prior to the option expiry date of 31 August 2024.

UPSTREAM MINING PROJECTS



Barrambie Titanium/Vanadium Project (Neometals 100%)

Barrambie, located approximately 80km north-west of Sandstone in Western Australia (“WA”), 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). The Mineral Resource is secured under a granted mining lease and has a granted mining proposal to extract approximately 1.2Mtpa of mineralisation.

Activity Summary

During the quarter the following activities were undertaken to support the divestment of Barrambie:

Technical

- Activities associated with preparation of an Exploration Target for gold. The Barrambie Greenstone Belt hosts a number of historic gold mines and the town was established upon the discovery of gold by contractors building the rabbit-proof fence in 1905.

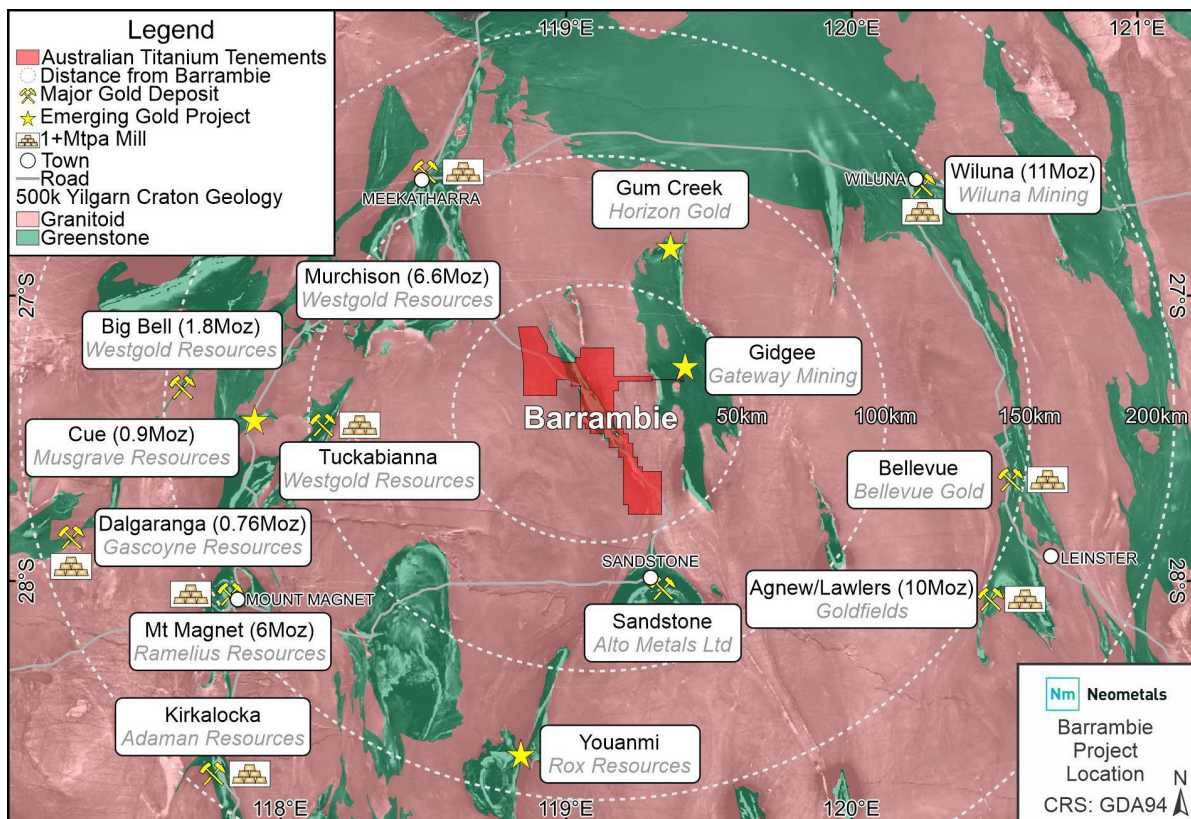


Figure 7 – The Barrambie Greenstone belt and surrounding gold mines and mills.

CORPORATE

During the quarter the Company continued to further reduce cash outflows across its projects, reducing non-essential activities, staffing levels and administrative costs.

A number of new senior management appointments and resignations were announced during the quarter:

- Non-executive director Dr Jennifer Purdie is now executive director and Chief Operating Officer for six months⁴;
- Mr Chris Kelsall as Chief Financial Officer and Company Secretary. The highly credentialled Mr Kelsall replaced Neometals' long serving Chief Financial Officer and Company Secretary, Mr Jason Carone who resigned from his role after almost 17 years to pursue new opportunities^{5,6}; and
- Dr Natalia Streltsova resigned as a Non-Executive Director of the Company, effective 30 June 2024.

During the quarter Neometals securities commenced trading on the OTCQX® Market in the U.S. under the symbol 'NMTAY'. No new securities were issued as part of quotation on the OTCQX market⁷;

Financial

Finances (unaudited)

Cash and term deposits on hand as of 30 June 2024 totalled \$9.8 million, including \$0.3 million in restricted use term deposits supporting contractual obligations. The Company has investments totalling \$14.2 million, net receivables of \$1.0 million and inventories of \$0.3 million.

Related Party payments for the quarter outlined in the ASX Appendix 5B released contemporaneously at section 6.1 total \$250,000 and are made up of Director fees and superannuation.

Issued Capital

The total number of Company shares on issue as at 30 June 2024 was 622,810,316.

Redivium Ltd (Formerly Hannans Limited) (ASX: RIL) (Redivium) (Battery Recycling)

As at 30 June 2024 Neometals held 879,812,014 ordinary fully paid shares (~26% of the issued capital) in Redivium on an undiluted basis. Redivium holds exclusive technology licences to Neometals' original LiB Recycling Technology in Italy, Greece 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 Limited.

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

Neometals holds ~18% of unlisted public company Critical Metals Ltd, a company which holds an exclusive licence to Neometals' original LiB Recycling Technology in Scandinavia, in joint venture with Redivium.

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

ENDS

⁴ For full details refer to ASX announcement headlined "Neometals Strengthens its Senior Management Team" released on 29 May 2024

⁵ For full details refer to ASX announcement headlined "Appointment of Chief Financial Officer" released on 3 June 2024

⁶ For full details refer to ASX announcement headlined "Appointment of Company Secretary" released on 11 July 2024

⁷ For full details refer to ASX announcement headlined "Neometals Shares Commence Trading on OTCQX Markey in the U.S." released on 16 May 2024



For further information, please contact:

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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 from the original market announcements.

APPENDIX

Appendix 1: Global Resource

Table 1: Barrambie Mineral Resource Estimate, April 2018*

Global Resource as at 17 April 2018¹			
	Tonnes (M)	TiO₂ (%)	V₂O₅ (%)
Indicated	187.1	9.61	0.46
Inferred	93.0	8.31	0.40
Total	280.1	9.18	0.44

High Grade V₂O₅ Resource (at 0.5% V₂O₅ cut-off)²			
	Tonnes (M)	TiO₂ (%)	V₂O₅ (%)
Indicated	49.0	16.93	0.82
Inferred	15.9	16.81	0.81
Total	64.9	16.90	0.82

High TiO₂ Resource (14% TiO₂ cut-off)²			
	Tonnes (M)	TiO₂ (%)	V₂O₅ (%)
Indicated	39.3	21.18	0.65
Inferred	14.3	21.15	0.58
Total	53.6	21.17	0.63

*Refer to Neometals ASX release dated 17 April 2018
title 'Updated Barrambie Mineral Resource Estimate'

(1) Based on Cut-off grades of ≥10% TiO₂ or ≥0.2% V₂O₅
(2) The high-grade titanium and vanadium figures are a sub-set of the total Mineral Resource. These figures are not additive and are reporting the same block model volume but using different cut-off grades.

Appendix 2: Tenement Interests

As at 30 June 2024, 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%	Live
Barrambie	E57/1401	100%	Pending
Barrambie	E57/1437	100%	Pending
Barrambie	E20/1037	100%	Pending
Barrambie	L57/0030	100%	Live
Barrambie	L57/0064	100%	Pending
Barrambie	L57/0065	100%	Pending
Barrambie	L57/0066	100%	Live
Barrambie	L20/0055	100%	Live
Barrambie	L20/0080	100%	Live
Barrambie	L20/0081	100%	Live
Queen Victoria Rocks	E15/1416-I	100%	Live

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

Project Name	Licence Name	Acquired or increased
Barrambie	L57/0066	Granted

Interests in mining tenements relinquished, reduced, or lapsed

Project Name	Licence Name	Relinquished, reduced, or lapsed
N/A	N/A	N/A

About Neometals Ltd

Neometals facilitates sustainable critical material supply chains and reduces the environmental burden of traditional mining in the global transition to a circular economy.

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- **Vanadium Recovery (100% NMT)** – Patent pending hydrometallurgical process to produce high-purity vanadium pentoxide from steelmaking by-product ("Slag") at lowest-quartile operating cost and carbon footprint.

Additionally, Neometals is conducting due diligence on acquiring a proprietary process and pilot plant to produce precious metals from waste.