

## Quarterly Activities Report For the quarter ended 31 December 2024

### HIGHLIGHTS

#### CORPORATE

- Cash balance of A\$10.7M; investments and net receivables of A\$10.7M and no debt; and
- During the quarter, Neometals Ltd ('Neometals', 'NMT' or 'the Company') raised A\$7.1M via a placement (A\$4M) and an entitlement issue (A\$3.1M) at A\$0.09 per share.

#### DOWNSTREAM PROCESSING TECHNOLOGIES

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

- Mercedes-Benz officially opened the integrated 2,500tpa plant lithium-ion battery recycling facility, supplied by Primobius, at Kuppenheim, Germany. The plant is being commissioned and aims to produce high-purity battery materials for reuse in their electric vehicle supply chain; and
- Primobius continues to progress its business development pipeline ahead of 'product readiness' target for commercial scale Spoke and Hub plants in 1H and 2H 2025, respectively.

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

- Final stage of the Pilot trial successfully produced high-purity lithium hydroxide monohydrate for evaluation by the brine feedstock provider and further market evaluation; and
- The Pilot trial data and vendor test work reports support the key power consumption and membrane life assumptions, and applicability of equipment for commercial-scale operation.

*Vanadium Recovery (87.1% NMT, via Recycling Industries Scandinavia AB ("RISAB"))*

- Equity and Debt process ongoing.

#### UPSTREAM MINERAL EXPLORATION

*Barrambie Gold and Vanadium/ Titanium Projects ("Barrambie") (100% NMT)*

- Barrambie Greenstone Belt hosted high-grade gold production early last century. No modern exploration since acquisition in 2003 and 90% of historical drilling largely limited to <60m in depth;
- Maiden Gold Exploration Target<sup>1</sup> ranging between 8Mt and 10.5Mt at an average grade of 1.3g/t Au to 2.3g/t Au, for 335,000 oz Au to 775,000 oz Au indicative of potential for camp-scale brownfields discoveries;
- Completed Aboriginal Heritage Survey and advanced preparations for maiden gold exploration program, due to commence in March Q 2025; and
- Advanced discussions in relation to the separate divestment of the Barrambie titanium and vanadium Mineral Resources.

<sup>1</sup> For full details refer to Neometals ASX announcement headlined "Barrambie Gold Exploration Target" released on 23<sup>rd</sup> September 2024

## DOWNSTREAM PROCESSING TECHNOLOGIES



### Lithium-ion Battery Recycling

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

#### *Background*

Primobius GmbH (“**Primobius**”) was established in 2020 to commercialise Neometals’ lithium-ion battery recycling technology under an exclusive licence from ACN 630 589 507 Pty Ltd (“**ACN 630**”), the intellectual property holding vehicle, both being co-owned with SMS group GmbH, a 150-year old German plant builder with ~14,000 employees globally and fabrication facilities in Europe, USA, India and China.

Primobius will earn a margin on plant supply agreements and pass through royalties from the associated technology licenses to ACN 630. ACN 630 is the ultimate beneficiary of five third party technology licences issued to date. ACN 630 holds five (5) granted national phase patents with a further twelve (12) pending.

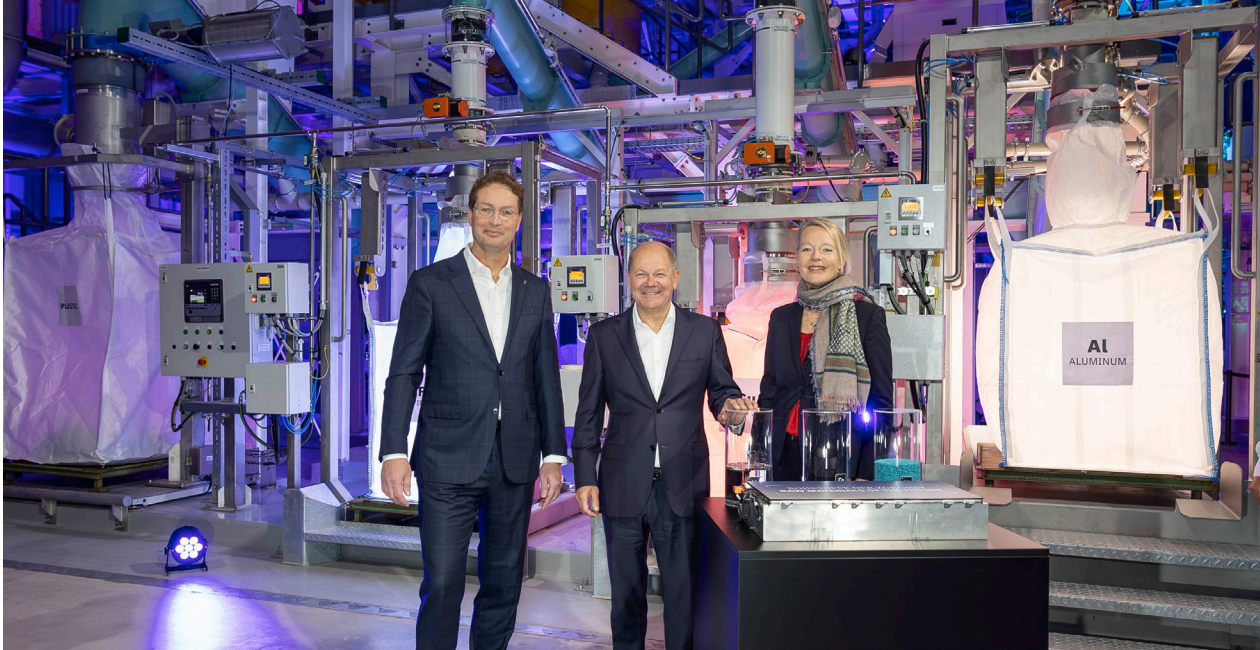
#### *Mercedes-Benz LiB Recycling Plant Officially Opens*

In May 2022, Neometals announced that Primobius and Mercedes-Benz (“**Mercedes**”) had entered into a 5-year research collaboration aimed at jointly developing tailored, industrial-scale LiB recycling solutions for Mercedes-Benz. The industrial validation of Primobius patented recycling technology at Kuppenheim plant will precede the global offering of commercial scale ~20,000tpa integrated battery recycling plants.



**Figure 1** – Part of the Integrated LiB Plant installed by Primobius at Kuppenheim

On 22 October 2024, Primobius announced the official opening of Europe's first battery recycling plant which utilises an integrated mechanical-hydrometallurgical process. The 2,500tpa plant in Kuppenheim, Germany was designed, supplied and installed by Primobius under a Supply Agreement with automotive company Mercedes-Benz.



**Figure 2** – MB CEO Ola Källenius, German Chancellor Olaf Scholz and State Environment Minister Thekla Walker

The Plant has re-commenced commissioning activities and is scheduled for acceptance testing of the shredding and beneficiation plant in the June Q 2025 and the Hub in the Dec Q 2025. Successfully acceptance testing of the Hub is the stage gate for proceeding to offer commercial-scale integrated recycling plants.

#### *Hilchenbach LiB Disposal Operation*

Primobius operates a LiB disposal service for customers in the German EV battery supply chain for which it receives a gate fee. The Hilchenbach shredding and beneficiation plant produces an intermediate mixed nickel/cobalt product (“**Black Mass**”) and a mixed copper/aluminium product (“**Black Copper**”) which are sold to offtakers. The plant is also used to showcase the shredding and beneficiation plant to prospective customers and test new process improvements and equipment.

#### *Commercial*

Four (4) exclusive licences have been issued for North America, Scandinavia, the Balkans and Italy and one (1) non-exclusive licence to the UK. Primobius has the right to acquire a 25-50% equity interest in the technology licensee at any time up to 30 June 2025<sup>2</sup>. Primobius continues to advance a number of non-binding MoUs for the potential supply of LiB recycling plants.

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



### Lithium Chemicals

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

#### Background

RAM is commercialising its proprietary, patented ELi™ Process (“ELi™”), which produces lithium hydroxide and carbonate from lithium chloride solutions using electrolysis. ELi™ has potentially significantly lower operating cost and carbon footprint compared to conventional production processes, replacing costly, bulk chemical reagents with electricity and low-cost internally generated reagents. RAM holds nineteen (19) granted national phase patents with a further fourteen (14) pending.

#### ELi™ Process Pilot Trial

During November, Neometals announced results from the final evaporation and crystallisation stage of the ELi™ Process Pilot Trial (“ELi Pilot”), successfully producing high-purity lithium hydroxide monohydrate.

RAM has now completed a long-duration 1,000-hour electrolysis membrane durability test utilising a lithium chloride solution produced in the successful 2023 ‘purification’ trial on brine sourced from South America<sup>3</sup>. The Trial results support the 2023 Engineering Cost Study estimates of two major variable operating costs (power consumption and membrane life) and hydrodynamic testing confirmed the equipment can be applied to commercial-scale operation.

The successful completion of the ELi Pilot and final test work reports allow RAM to advance the partner selection process to fund the next stage of commercialisation, the industrial validation through continuous demonstration plant trials.

**Table 1 – LHM Sample Analysis**

Element <sup>4</sup>	LiOH %	CO <sub>3</sub> <sup>2-</sup> %	Na ppm	Ca ppm	K ppm	Fe ppm	SO <sub>4</sub> ppm
<b>Target Spec</b>	>56.5	<0.4	20	10	10	10	100
<b>Sample 1</b>	56.6	ND	1.8	6.0	5.6	8.2	2.4
<b>Sample 2</b>	56.9	ND	3.6	9.7	5.1	8.6	1.5

<sup>3</sup> For full details refer to Neometals ASX announcement dated 12<sup>th</sup> November 2024 and titled “Positive Results from ELi™ Pilot Trial”

<sup>4</sup> LiOH and CO<sub>3</sub><sup>2-</sup> analysis reported by a South African laboratory and the other elements reported by an Australian laboratory

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### **Vanadium Recovery**

**(Intellectual Property via Avanti Materials Ltd – NMT 100%)**

**Vanadium Recovery Project 1 via Recycling Industries Scandinavia AB (“RISAB”) – 87.1% NMT, 11.8 % Critical Metals Ltd and 1.1% EIT RawMaterials GmbH (option to increase to 19.9%)**

#### *Background*

Neometals has developed a process to produce vanadium products for battery and aerospace alloying applications, from vanadium-bearing steel slag by-products. A Pilot trial and Feasibility Study indicated the potential for lowest-quartile operating costs<sup>5</sup> and carbon-footprint, utilising conventional equipment at atmospheric pressure, mild temperatures, and standard construction materials. Avanti Materials Ltd (100% NMT), the intellectual property holding company, has seven (7) national phase patents pending.

#### *Vanadium Recovery Project 1 (“VRP1”) – Finland*

In September 2024 RISAB executed a project agreement with EIT RawMaterials GmbH (“EIT RawMaterials”) to support the development of the Finnish vanadium recovery project (“VRP1”). EIT RawMaterials provided €0.5M (c. A\$829k) in grant funding and become a minority shareholder in RISAB (1.1%) at a pre-money valuation of €50M (c. A\$82.9M)<sup>6</sup> (“Pre-Money Valuation”) and has the option to subscribe for up to a further €10M in additional RISAB equity, at the Pre-Money Valuation.

During the quarter RISAB progressed a project financing process for equity and debt, with improved economics arising from an additional €15M conditional investment grant provided by the EU backed Finnish State NextGeneration fund and potential new 20% investment tax credit from the Finnish State.



**Figure 3 – Schematic View of the proposed VRP1 Plant at Tahkoluoto Port, Pori, Finland**

<sup>5</sup> For full details refer to Neometals ASX announcement headlined “Vanadium Recovery Project Delivers Strong Feasibility Results” released on 8<sup>th</sup> March 2023

<sup>6</sup> For full details refer to Neometals ASX announcement headlined “Finnish Vanadium Project receives EU supported capital injection” released on 16 September 2024

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## UPSTREAM EXPLORATION PROJECTS



### **Barrambie Titanium and Vanadium Project** (Neometals 100%)

#### *Background*

Barrambie, located approximately 80km north-west of Sandstone in Western Australia (“WA”), is one of the largest vanadiferous titanomagnetite (“VTM”) Mineral Resources globally (280.1 Mt at 9.18% TiO<sub>2</sub> and 0.44% V<sub>2</sub>O<sub>5</sub>)<sup>7</sup>, containing the world’s second highest grade hard rock titanium Mineral Resource (53.6Mt at 21.17% TiO<sub>2</sub> and 0.63% V<sub>2</sub>O<sub>5</sub>).

#### *Activity Summary*

During the quarter, discussions advanced in relation to the separate divestment of the Barrambie titanium and vanadium Mineral Resources.



### **Barrambie Gold Project** (Neometals 100%)

#### *Background*

The Barrambie Greenstone Belt (“BGB”) has historically reported a production of ~27,000 ounces of gold in the early part of the last century, as recorded by the Western Australian Mines Department. Neometals has not conducted any gold exploration since acquiring the first tenement in 2003. A recent review of the historical public data highlighted that 90% of previous drilling for gold has largely been limited to less than 60m in depth, suggesting that the BGB is one of the most underexplored greenstone belts in the West Australian goldfields. Barrambie is proximal to a number of camp scale gold projects with existing processing infrastructure.

In September 2024, Neometals announced that the identified Exploration Target along the 40km strike of BGB within Neometals’ tenure is between 8Mt at an average grade of 1.3g/t Au and 10.5Mt at an average grade of 2.3g/t Au, for an implied 335,000 ounces to 775,000 ounces gold<sup>8</sup>.

#### *Activity Summary*

During the quarter an Aboriginal Heritage survey was completed in preparation for NMT’s inaugural gold drilling program. A Program of Work for the planned drilling has received regulatory approval from the West Australian Department of Energy, Mines, Industry Regulation and Safety and preparations are well advanced to commence the program during the March Q 2025.

<sup>7</sup> For full details refer to Neometals ASX announcement headlined “Updated Barrambie Mineral Resource Estimate” released on 17<sup>th</sup> April 2018.

<sup>8</sup> For full details refer to Neometals ASX announcement headlined “Barrambie Gold Exploration Target” released on 23<sup>rd</sup> September 2024

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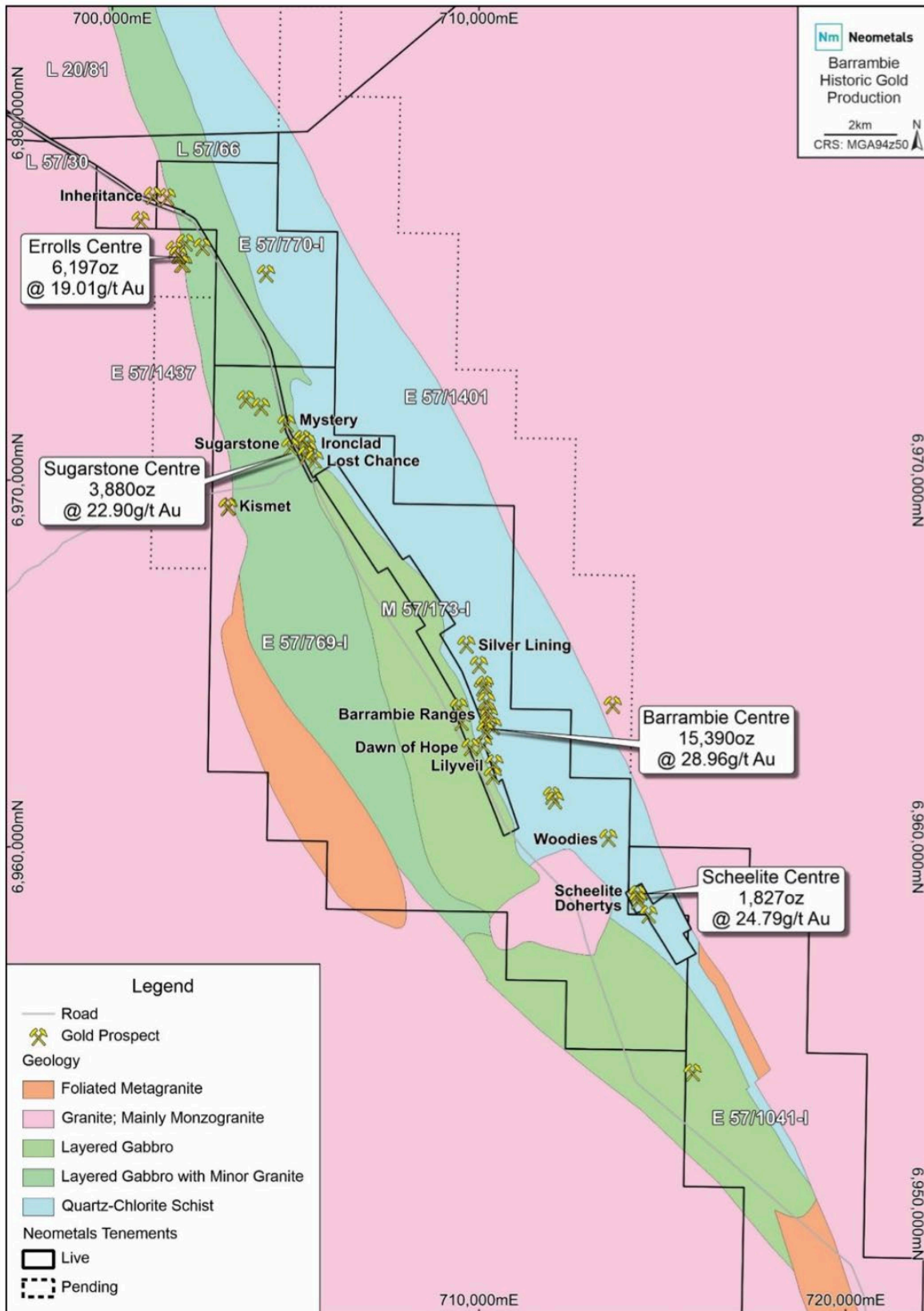


Figure 4 - Barrambie Gold Project tenure, simplified geology and historical production centres

## CORPORATE

Neometals completed a A\$4 million placement and received \$3.1 million from an entitlement issue during the quarter. Shares were issued at \$0.09 per share for each transaction.

### **Financial**

#### *Finances (unaudited)*

Cash and term deposits on hand as of 31 December 2024 totalled \$10.7 million, including \$0.3 million in restricted use term deposits supporting contractual obligations. The Company has investments totalling \$9.2 million, with net receivables of \$1.5 million.

Related party payments for the quarter outlined in the ASX Appendix 5B released contemporaneously at section 6.1 total \$321,594, comprising Director fees and superannuation.

#### *Issued Capital*

The total number of shares on issue as at 31 December 2024 was 769,425,084.

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

As at 31 December 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. During the December quarter, Redivium announced to ASX that its shares would be voluntarily suspended from trading and that it would assess the reinstatement of its shares to trading following the completion of its pro-rata non-renounceable entitlement offer.

#### *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.

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

### **ENDS**

For further information, please contact:

**Chris Reed**  
Managing Director/CEO  
Neometals Ltd  
T: +61 8 9322 1182  
E: info@neometals.com.au

**Lucas Robinson**  
Managing Director  
Corporate Storytime  
T: +61 408 228 889  
E: lucas@corporatestortime.com

### 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](http://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.

### Competent Persons Statement – Exploration Target

The information in this Quarterly Activities Report that relates to Exploration Targets is based on information compiled by Jeremy Peters. Mr Peters a Director of Burnt Shirt Pty Ltd, a geological and mining consultancy, and has sufficient experience relevant to Western Australian orogenic gold mineralisation and to the reporting of Exploration Targets to qualify as a Competent Person as defined in the December 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Data compiled from historic WAMEX reports by the Neometals Exploration Team has been reviewed by Mr Peters, who has consented to the inclusion of the matters in this Quarterly Activities Report based on this information in the form and context in which it appears.

### About Neometals Ltd

The Company is commercialising a portfolio of sustainable processing solutions that recover critical materials from high-value waste streams. Plant supply and/or technology licensing business models are preferred given lower risk and capital required.

- Neometals' core focus is its patented, **Lithium-ion Battery ("LiB") Recycling technology (50% NMT)**, being commercialised (via Primobius GmbH) with 150-year-old German plant builder, SMS group GmbH. Primobius is supplying Mercedes-Benz a 2,500tpa recycling plant for Mercedes-Benz, which is currently being commissioned. This industrial validation will precede the offer of commercial ~20,000tpa integrated recycling plants to its business development pipeline.
- **Lithium Chemicals (70% NMT)** – Patented ELi™ electrolysis process, co-owned 30% by Mineral Resources Ltd, aiming to produce battery quality lithium hydroxide from brine and/or hard-rock feedstocks at lowest quartile operating costs. Successfully completed Pilot scale test work and planning industrial validation with funding partners through continuous demonstration plant trials, targeting a technology licensing business model; and

- **Vanadium Recovery (100% NMT)** – Patent pending hydrometallurgical process, aiming to produce high-purity vanadium pentoxide from steelmaking by-product (Slag) at lowest-quartile operating cost and carbon footprint. Planning to exploit under a technology licensing business model. Project financing process for first commercial plant in progress (87.1% NMT).

The Company's remaining upstream mineral asset has two separate styles of mineralisation and mineral resources:

- **Barrambie Titanium and Vanadium (100% NMT)** – The world's second highest grade hard-rock titanium and vanadium deposit is currently in a divestment process; and
- **Barrambie Gold (100% NMT)** – Historic high-grade gold producer early 1900s, no modern exploration. Maiden gold exploration target highlighted potential for camp-scale brownfields gold discoveries. Maiden gold exploration programs planned for March Q 2025. Barrambie is proximal to a number of camp-scale gold projects with existing processing infrastructure.

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## APPENDIX

*Appendix 1: Tenement Interests*

As at 31 December 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	E57/1401	100%	Pending
Barrambie	E57/1437	100%	Pending
Barrambie	L57/0030	100%	Live
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
N/A	N/A	N/A

*Interests in mining tenements relinquished, reduced, or lapsed*

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