



# BATTERY RECYCLING DEMONSTRATION PLANT FULLY COMMISSIONED

## HIGHLIGHTS

- All leaching, purification and recovery circuits of the Stage 2 hydrometallurgical refinery successfully wet commissioned; and
- Continuous demonstration trials processing EV cells from European battery cell and carmakers scheduled to commence in November.

Innovative project development company, Neometals Ltd (ASX: NMT) (“**Neometals**” or “**the Company**”), is pleased to announce that Primobius GmbH (“**Primobius**”), the joint venture (“**JV**”) company owned 50:50 by Neometals and SMS group GmbH (“**SMS group**”), has successfully completed commissioning of its showcase lithium-ion battery (“**LIB**”) recycling demonstration plant (“**DP**”). The DP trial on EV LIBs will commence as scheduled in early November to generate data for the feasibility study as well as to demonstrate the safe, efficient, green recycling process to potential feedstock supply and product offtake partners.

The DP, located in Primobius’ leased building within the SMS group manufacturing centre in Hilchenbach, comprises a Shredding and Beneficiation Circuit (Stage 1) and a Hydrometallurgical Refining Circuit (Stage 2). The Stage 2 leaching, purification and recovery (solvent extraction) circuits have been successfully wet commissioned. Intermediate active material (“**Black Mass**”) produced in Stage 1 has been leached, purified and individual sulphate solutions of copper, manganese, cobalt, nickel and lithium recovered sequentially via solvent extraction.

Commissioning of the DP refining circuit clears the path to commence continuous trials on LIB cells and modules sourced from the European EV supply chain. The purpose of the DP trials is to confirm at scale the technical feasibility of the Primobius recycling flowsheet on a continuous, fully integrated basis. Successful completion will enable the completion of the feasibility study for a 50tpd Primobius recycling operation in the March quarter of 2022. The successful commissioning and operation of the separate 10tpd commercial disposal plant currently under construction (*for further details see Neometals announcement titled “Battery Recycling - Decision to fund commercial operations” dated 19<sup>th</sup> August 2021*) will precede any investment decision by Primobius on the larger 50tpd Primobius recycling operation in Germany.

Neometals has several of its Perth-based hydrometallurgical team supervising commissioning of the Stage 2 circuits with the local technical team. Over the coming fortnight the teams will undertake process optimisation activities before the continuous trials in November. The engineering group will also take the opportunity to collate learnings from construction and commissioning for application to the commercial plant design and incorporation into the feasibility study.

Neometals’ Managing Director Chris Reed commented:

*“This is another important milestone for Primobius. The demonstration trial is the conclusive phase of our evaluation with SMS and represents the key step in bringing our pipeline of potential plants into commercial reality. Inbound interest from the global EV supply chain in our efficient, green recycling process is exceptional. This interest coupled with the scalability and deliverability from our partnership with a leading global plant builder in SMS, augurs well for the achievement of our goal to become the leading recycling solution in the Western world.”*

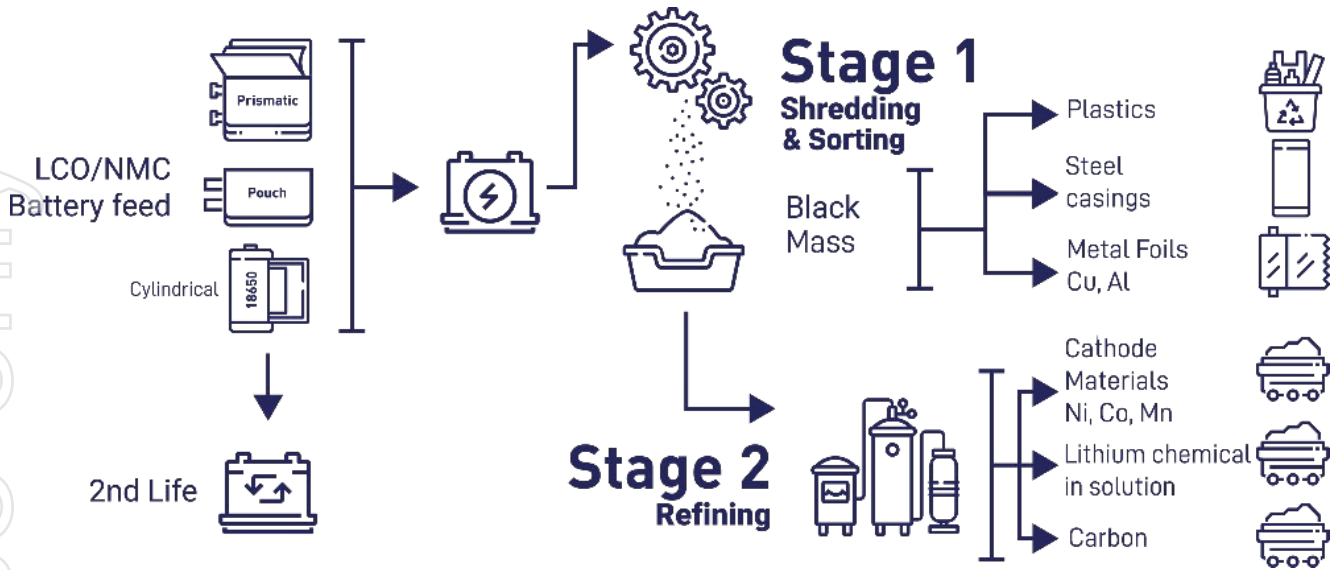


Figure 1 - Integrated LIB Recycling Flowsheet



Figure 2 – Refining circuit – nickel extraction



Figure 3 - Refining circuit – cobalt extraction



Figure 4 - Refining circuit – lithium extraction

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Authorised on behalf of Neometals by Christopher Reed, Managing Director

## ENDS

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## About Neometals Ltd

Neometals innovatively develops opportunities in minerals and advanced materials essential for a sustainable future. With a focus on the energy storage megatrend, the strategy focuses on de-risking and developing long life projects with strong partners and integrating down the value chain to increase margins and return value to shareholders.

Neometals has three core projects that support the global transition to clean energy and span the battery value chain:

### Recycling and Resource Recovery:

- Lithium-ion Battery Recycling – a proprietary process for recovering nickel, cobalt and other valuable materials from spent and scrap lithium batteries. Showcase demonstration plant trials targeted for DecQ 2021 with 50:50 JV partner SMS group. Targeting a development decision in Mar Q 2022; and
- Vanadium Recovery – sole funding evaluation studies to form a 50:50 joint venture with Critical Metals Ltd to recover high-purity vanadium pentoxide from processing by-products (“Slag”) from leading Scandinavian steelmaker SSAB. Underpinned by a 10-year Slag supply agreement, Neometals is targeting an investment decision to develop a 200,000tpa processing plant in DecQ 2022.

### Upstream Industrial Minerals:

- Barrambie Titanium and Vanadium Project - one of the world's highest-grade hard-rock titanium-vanadium deposits, working towards a development decision in 2022 with potential operating JV partner IMUMR and potential cornerstone product off-taker, Jiuxing Titanium Materials Co.