Market Update

17 December 2024

Cobalt Blue Holdings Limited

A Green Energy Exploration Company

ASX Code: **COB**

Commodity Exposure:

Cobalt & **Sulphur**

Directors & Management:

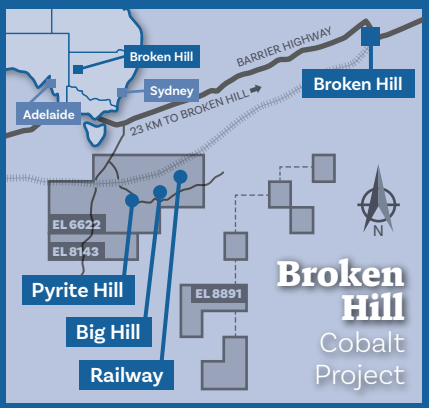
Robert Biancardi	Non-Exec Chairman
Hugh Keller	Non-Exec Director
Joe Kaderavek	CEO & Exec Director
Danny Morgan	CFO & Company Secretary

Capital Structure:

Ordinary Shares at 17/12/2024:	**422.5m**
Unlisted options/rights:	**46.7m**
Market Cap (undiluted):	**$30m**

Share Price:

Share Price at 17/12/2024:	**$0.071**



Cobalt Blue Holdings Limited

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Highlights

Kwinana Refinery Update + Black Mass Agreement

KEY POINTS

- During 2024. Cobalt Blue completed successful testwork on two key sources of feedstock. Recently, several new sources of potential feedstock have been identified with similar levels of success.
- The Kwinana Cobalt Refinery (**KCR**) engineering program is nearing completion in preparation for a project financing decision in 2025.
- The primary operating permit for KCR has been submitted to the Western Australia Department of Water and Environmental Regulation.
- Cobalt Blue and Ecobatt have entered into a Memorandum of Understanding (**MOU**) to evaluate the feasibility of treating black-mass from battery recycling (a mix of crushed metals produced from shredded battery scrap) within Australia.

Kwinana Cobalt Refinery Update

Cobalt Blue and Iwatani are progressing programs toward a financing decision in 2025. These include testwork and engineering studies, permit applications, and contracts for feed and offtake.

Testwork

Throughout 2024, Cobalt Blue has undertaken testwork at the Broken Hill Technology Development Centre[1]. The work has focused on leaching key sources of potential feedstock, including cobalt hydroxide (international source) and cobalt-nickel sulphide precipitate (from within Australia). These were purchased on commercial terms.

Recently, COB has expanded testwork on other sources of feedstock:

- Cobalt hydroxide from another major global supplier (name withheld for commercial in confidence)
- Black mass from Ecobatt, an Australian battery recycler
- A cobalt intermediate from battery recycling in India (name withheld for commercial in confidence)

Each of the testwork programs has successfully demonstrated cobalt extractions of >95% from the head samples.

1 *See ASX Announcement dated 9 October 2024 "Kwinana Cobalt Refinery Update"*

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Following leaching, the testwork program has covered separation of cobalt using precipitation, ion-exchange, solvent extraction, and crystallisation techniques. Cobalt Blue is aiming to produce cobalt sulphate heptahydrate in conformance with stringent Japanese market specifications. The most recent testwork has achieved purification of the cobalt sulphate, removing zinc, copper, iron, manganese, nickel, and magnesium to target levels. Testwork continues, in order to generate representative sample for evaluation by prospective offtakers.

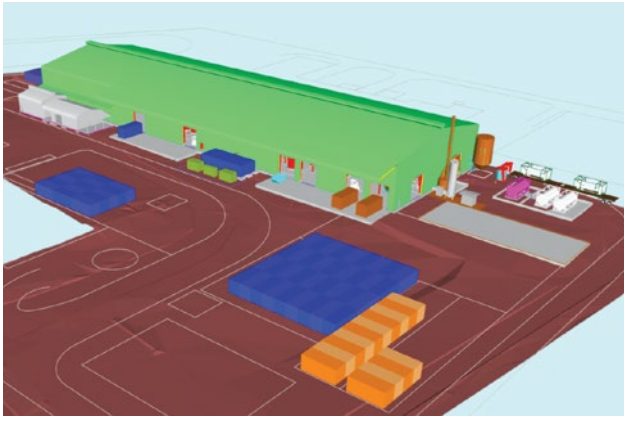
Figure 1 – **Cobalt separation using a system of ion-exchange columns at the Broken Hill Technology Development Centre**

Figure 2 – **Final product cobalt sulphate in the crystaliser**

Engineering

Tetratech has continued with the detailed design study. The refinery's integration within the Iwatani Australia-owned Doral Fused Materials (**DFM**) site has driven the design of plant layout, traffic management, power supply, and surface water management. The design case is nearing completion in preparation for a project financing decision in 2025.

Figure 3 – **Kwinana Cobalt Refinery plant layout**



Permitting

The testwork and engineering studies have supported the preparation of the two permit applications. A Works Approval was submitted by DFM (on behalf of Cobalt Blue) in November 2024 to the Department of Water and Environmental Regulation. This included details of the proposed refinery including: waste and emission management, feed and product logistics (via Fremantle container port), and consumption of water, reagents and power. Importantly, this application is a request to modify the existing DFM Works Approval.

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Financing

As Cobalt Blue requires Government financial support to construct the Refinery, it is progressing through pre-screening processes with Government funding agencies to garner support to enable timely recommendations from them and prompt political decisions from State and Federal governments.

Memorandum of Understanding with Ecobatt

Cobalt Blue and Ecocycle Pty Ltd (Ecobatt) have entered into a MOU to evaluate the feasibility of treating black mass from battery recycling (a mix of crushed metals produced from shredded battery scrap) within Australia.

There is increasing emphasis on creating a circular economy in Australia which can recover critical minerals from materials such as spent recycled batteries, minimises the necessity for new mining projects, and keeps these valuable resources here in Australia for re-use and out of landfills. According to the Battery Stewardship Council, up to 400 million batteries may be in use in Australia, but less than 5% are recycled (not including Lead Acid Batteries). Many of the used lithium-ion batteries find their way in kerbside bins to landfills, and the risks from fire and damage to recycling facilities around Australia is a daily problem, as are for companies and the community storing them at home or in factories.

Ecobatt is the pre-eminent battery recycling company in Australia. It manages a national collection system to recycle and process battery products, based on proven world-class battery recycling technology.

Cobalt Blue has successfully tested samples of black mass provided by Ecobatt to extract cobalt, nickel and manganese. The testwork program is now expanding to cover production of suitable forms of separate cobalt, nickel, manganese and lithium chemicals for onward sale for lithium-ion battery cathode manufacturing.

The two companies have agreed to continue to collaborate to explore and evaluate opportunities around processing black mass into critical minerals to re-enter the battery supply chain. This partnership is built on the expectation that the result of the complementary functions will contribute to the growth of Australia's battery recycling ecosystem.

The MOU shall remain in force until 31 December 2025 unless terminated earlier by a party. A party has the right to terminate the MOU with written notice.

Figure 4 – **Ecobatt's black mass ahead of testing at the Broken Hill Technology Development Centre**

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About Cobalt Blue

Cobalt Blue is a mining and mineral processing company focussed on the development of the Kwinana Cobalt Refinery in Western Australia, the Broken Hill Cobalt Project in New South Wales, and ReMine+ projects with a view to global opportunities contained in mine waste. A leading developer of technology addressing the growing demand for critical minerals essential for the global energy transition, Cobalt Blue operates with a strong commitment to innovation and sustainability. Cobalt Blue's optimised metallurgical processes are at the forefront of the industry.

Disclaimer

This announcement contains "forward-looking statements". All statements other than those of historical facts included in this announcement are forward-looking statements. Where Cobalt Blue expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks include but are not limited to the ability to reach binding agreement on terms or at all, timely completion of project milestones, funding availability, government and other third-party approvals. Readers should not place undue reliance on forward-looking statements. Cobalt Blue does not undertake any obligation to release publicly any revisions to any "forward-looking statement".

This announcement was authorised for release to the ASX by the board of Cobalt Blue Holdings Limited.

For further information, please contact:

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Previously Released Information

COB confirms it is not aware of any new information or data that materially affects the information included in the original market announcement, and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. COB confirms that the form and context in which the Competent Person's findings presented have not been materially modified from the original market announcement.