# Market Update

17 May 2021

**Cobalt Blue Holdings Limited** A Green Energy Exploration Company



ASX Code:

COB

### **Commodity Exposure**

### **Cobalt & Sulphur**

### **Directors & Management:**

**Hugh Keller Robert McDonald** Joe Kaderavek **Danny Morgan** 

Robert Biancardi Non-Exec Chairman Non-Exec Director Non-Exec Director CEO & Exec Director CFO & Company Secretary

Ordinary Shares at 17/05/2021: 248.5m **Unlisted options:** 8.8m Market Cap (undiluted): \$82.0m

Share Price at 17/05/2021: \$0.33



### **Cobalt Blue Holdings Limited**

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cobalt-blue-holdings

### **Highlights**

## **Pilot Plant Operations** Commence

### **RELEASE HIGHLIGHTS**

- Pilot Plant successfully installed and commissioned with all concentrate, leach and mixed hydroxide recovery circuits tested. Multiple Mixed Hydroxide Product (MHP) test runs have now been completed over the last four weeks under varying conditions.
- COB is pleased to report all unit operations are currently operating and the plant is producing MHP. Shipment of samples will commence shortly, with over 30 global partners to receive Broken Hill Cobalt Project (BHCP) cobalt samples (total production from the Pilot Plant is expected to produce up to 150kg of samples).
- Pilot Plant production of BHCP feed material is expected to be completed during over the next 6-8 weeks. In parallel, COB expects technical and commercial discussions to begin.
- Results from the Pilot Plant will be used to plan for the continuously operating Demonstration Plant.

COB's Chief Executive Officer, Joe Kaderavek said:

"Production of cobalt samples from the Pilot Plant is a very important milestone for COB and its shareholders. In parallel with commercial sample shipments, we expect to run corresponding commercial discussions. In conjunction with our recent appointment of a Strategic Financial Advisor (Cutfield Freemen and Co), this puts the BHCP on the global commercial radar".

## **Pilot Plant Operations Commenced**

COB announces the successful installation and commissioning of its Broken Hill based Pilot Plant. Production of concentrate has been operating at nameplate 2-3 tonnes per day since the start of May. Pressure leaching and product recovery circuits have been successfully trialled, with ramp-up to nameplate throughput underway.

The aim of the Pilot Plant is to process 90 tonnes of ore into an intermediate Mixed Hydroxide Product (MHP) or battery ready cobalt sulphate. COB anticipates that up to 150 kg of these cobalt products will be produced over the next 6 - 8 weeks. Over 90% of the requested samples have been for MHP, and we expect to produce (battery ready) cobalt sulphate over the same timeframe.





The focus over the recent three months has been to successfully install and commission our Pilot Plant and calibrate the equipment for production of a marketable product. As part of operations, the focus will expand to aim for the highest cobalt and sulphur recoveries, along with optimisation of reagent inputs. With plant now running, COB can continue to optimise inputs and processing costs.

COB had previously announced (16 July 2020) a Project Update 2020 which delivered an All In Sustaining Cost (AISC) to produce cobalt sulphate of US\$12.13/lb. The study assumed a cobalt recovery of 85.5% from resource to saleable product. The Pilot Plant and subsequent Demonstration Plant will allow COB to examine in detail, the possibility of improving this recovery, which has the potential to significantly improve project economics. It is important to remember therefore, that successfully producing cobalt samples on a larger scale is a stepping stone towards project optimisation.

The Pilot Plant will provide initial samples, aiming to generate commercial interest in the BHCP as well as form the basis for the engineering design and cost estimates for the BHCP Demonstration Plant and Feasibility Study.

COB is pleased to provide the following photographs of key unit operations

Figure 1 – Broken Hill Cobalt Project – Concentrate Circuit







Figure 2 – **Broken Hill Cobalt Project – Pressure Oxidation Circuit** 



Figure 3 – Broken Hill Cobalt Project – Belt Filter & Pressure Oxidation Circuit







Figure 4 – Broken Hill Cobalt Project – MHP Refinery Circuit



Figure 5 – **Broken Hill Cobalt Project – Pilot Plant MHP product** 





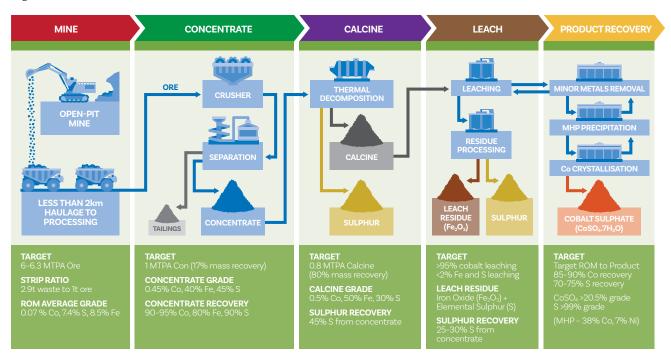


Looking forward, transition to a larger scale Demonstration Plant will enable processing of 3,000–4,000 tonnes of ore into 3,000–4,000 kg of either MHP or battery grade cobalt sulphate. The aim is to allow shipments of larger pre-qualification samples to global partners. Typically, a cathode maker may wish to source 5 x (10–20) kg samples to gain confidence that BHCP product quality and consistency meet large scale procurement requirements. COB expects this supplier pre-qualification process to take approximately 12 months and to include technical, site, ethical and other functional audits to ascertain the suitability of BHCP product into western supply chains.

## **Market Strategy**

Our strategy is focused upon maximising payable cobalt whilst participating in the strong growth of the lithium-ion battery market. Unlike the traditional cobalt mining model, COB is an integrated refinery model capable of delivering either an intermediate MHP or a battery grade cobalt sulphate. The COB process flowsheet is shown below.

Figure 6 – BHCP Process Flowsheet



## **Global Sample Partner Program**

To date COB has engaged with over 30 global partners that wish to assess the suitability of BHCP cobalt sample to meet their production needs. These partners span Europe, India, Korea, United States, Japan, China and Australia. Over 90% of requests are for MHP samples.

COB is proud to announce that first cobalt sample shipments will begin shortly and continue through Q2 2021. We expect all partners to receive their requested cobalt samples with independent assays and associated follow up technical/commercial meetings also likely to begin over Q2 2021.

## Strategic Financial Advisor Appointed

COB has previously announced the appointment of Cutfield Freeman & Co Limited (Cutfield Freeman) to act as its strategic financial advisor. Cutfield Freeman is a global specialist resources corporate advisory business, having successfully advised on over 150 mandated transactions across 50 countries. The role of Strategic Financial Advisor includes Partner Search, Financial Advisory, and Capital Raising.

The co incident timing of shipping cobalt commercial samples in conjunction with this appointment is expected to significantly increase the commercial/investment focus upon the BHCP.





## **Cobalt Blue Background**

Cobalt Blue Holdings Limited (ASX: COB) is an exploration and project development company. Work programs advancing the Broken Hill Cobalt Project in New South Wales continue. Our ambitious goals are subject to funding availability. Cobalt is a strategic metal in strong demand for new generation batteries, particularly lithium-ion batteries now being widely used in clean energy systems.

Looking forward, we would like our shareholders to keep in touch with COB updates and related news items, which we will post on our website, the ASX announcements platform, as well as social media such as Facebook (1) and Linkedln (in). Please don't hesitate to join the 'COB friends' on social media and to join our newsletter mailing list at our website.

Joe Kaderavek

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This announcement was approved by the Board of Directors.

## **Previously Released Information**

This ASX announcement refers to information extracted from the following reports, which are available for viewing on COB's website http://www.cobaltblueholdings.com

- 7 April 2021: Strategic Financial Advisor Appointed
- 31 March 2021: Cobalt in Waste Streams Project
- 8 March 2021: Pilot Trial Commissioning underway. Global samples to begin shipment.
- 16 July 2020: Broken Hill Cobalt Project (BHCP) Project Update 2020

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 any Competent Person's findings presented have not been materially modified from the original market announcement.