# Market Update

20 Jun 2022

**Cobalt Blue Holdings Limited**

A Green Energy Exploration Company

ASX Code: **COB**

**Commodity Exposure:**

**Cobalt** & **Sulphur**

**Directors & Management:**

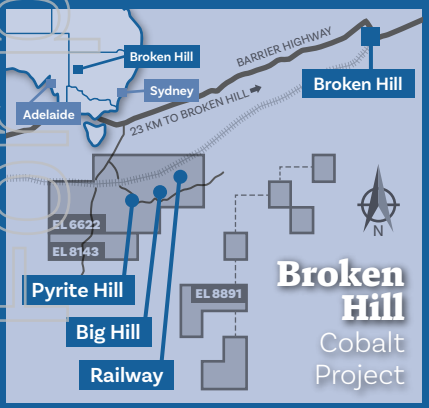
| | |
|---|---|
| **Robert Biancardi** | Non-Exec Chairman |
| **Hugh Keller** | Non-Exec Director |
| **Robert McDonald** | Non-Exec Director |
| **Joe Kaderavek** | CEO & Exec Director |
| **Danny Morgan** | CFO & Company Secretary |

**Capital Structure:**

| | |
|---|---|
| **Ordinary Shares** at 20/06/2022: | **321.2m** |
| **Unlisted options**: | **19.0m** |
| **Market Cap** (undiluted): | **$199m** |

**Share Price:**

| | |
|---|---|
| **Share Price** at 20/06/2022: | **0.62** |





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## Highlights

# Demonstration Plant - Ore Extraction Underway, Commissioning Continues

### KEY POINTS

- Decline development has been completed with the first 1,000 t of ore delivered to surface for processing.
- Staged commissioning of the site concentrator to commence shortly.
- Large-scale kiln & sulphur recovery equipment received to complete plant construction in Broken Hill.

Commenting on the recent progress Cobalt Blue's Chief Executive Officer, Joe Kaderavek said:

*"Mining/crushing operations are now underway with progressive commissioning across the flowsheet to follow. We anticipate the Demonstration Plant will deliver over 3,000 kgs of cobalt products from June – November, providing technical validation of our processing technology, product quality and underpinning project investment. We expect significant commercial interest over 2H 2022."*

The Demonstration Plant comprises two phases of operation. Firstly, mined ore will be crushed, milled and treated to produce a cobalt-pyrite concentrate at the Pyrite Hill site. Secondly, the concentrate will then be trucked to the Demonstration Plant in Broken Hill for extraction and recovery of cobalt as mixed Hydroxide Precipitate (MHP) and/or cobalt sulphate.

## Bulk Sample Extraction

The underground portal was established in late April and the decline subsequently advanced 85 m for commencement of ore drive development and extraction of the targeted ore tonnage.

The decline intersected mineralisation from 68 m with the advance delivering the first 1,000 t of ore for processing. A total of 3,500–4,000 t of ore will be mined from Pyrite Hill to support 20 weeks of continuous operation of the Demonstration Plant. Approximately 78 m of planned development remains including:

- 48 m of cross strike development targeting intersection of the deposit footwall; and
- 30 m of strike parallel development.

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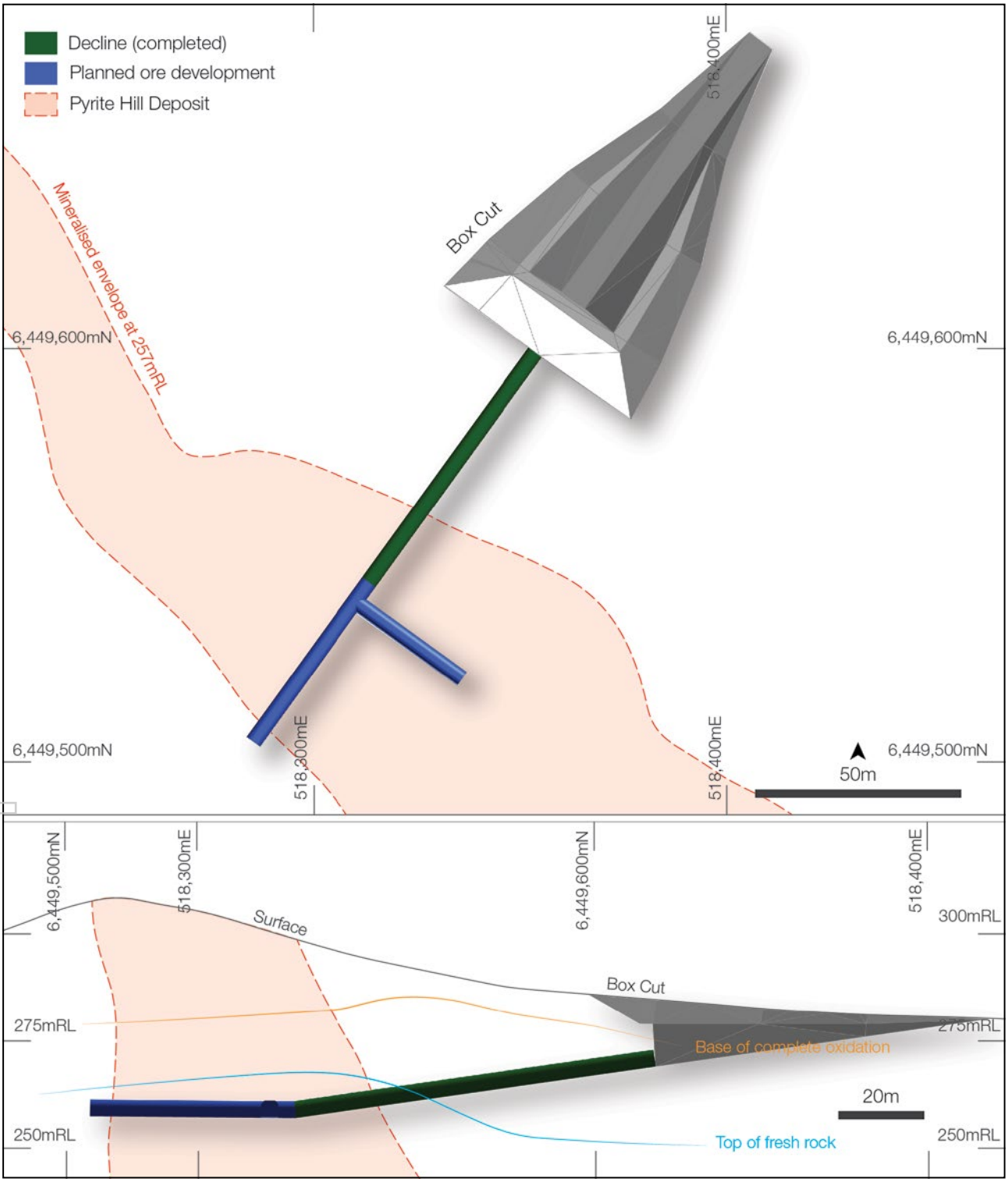
## Pyrite Hill Geology

The Pyrite Hill deposit extends over 1.2 km along strike, over 300 m down dip and varies in thickness from 10 to 100 m. Mineralisation is hosted by a quartz-albite gneiss and is characterised by the presence of disseminated pyrite concentrated parallel to primary foliation.

The remaining development at Pyrite Hill is planned to extract material from 257 mRL (approximately 40 to 50 m below surface) where the orebody demonstrates an apparent thickness of approximately 65 m. The development is 3 to 6 m below the interpreted top of fresh rock surface.[1]

Figure 1 – **Plan and section of the underground development at Pyrite Hill targeting extraction of 3,500–4,000 t of ore.**




1 *The Pyrite Hill geological interpretation and description is as released on 16 September 2021 in the market announcement titled 'BHCP Resource Update'.*

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Figure 2 – **First ore extracted from the decline development at Pyrite Hill.**

# Demonstration Plant Update

Construction and installation of key equipment at the Pyrite Hill site has been completed with the finalisation of the electrical and process control system.

The multi-stage crushing plant has been mobilised to site and to date has processed and screened some 900 t of ore to -20 mm. Of this, approximately 40% passing -4 mm has been directly forwarded to the plant for final milling reducing the ore feed to a desired particle size of -1 mm. This material is then being fed into the gravity concentrate circuit at a nominal rate of 9–10 t/hr.

Crushing operations will continue on a campaign basis with recirculation of oversize material and processing of remaining ore tonnes as mining progresses.

In Broken Hill, installation is continuing in readiness for delivery of the first batch of concentrate from Pyrite Hill. With receipt of the new large-scale kiln and sulphur recovery equipment, all major components are now onsite to complete the plant construction. Current works are focussed on finalisation of the process control system.

Figure 3 – **Pyrite Hill site concentrator including gravity spirals.**

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Figure 4 – **Multi-stage crushing plant processing ore stockpile in preparation for milling.**

Figure 5 – **Broken Hill plant. Left: Horizontal vacuum filter belt. Right: Pressure oxidation leach circuit.**

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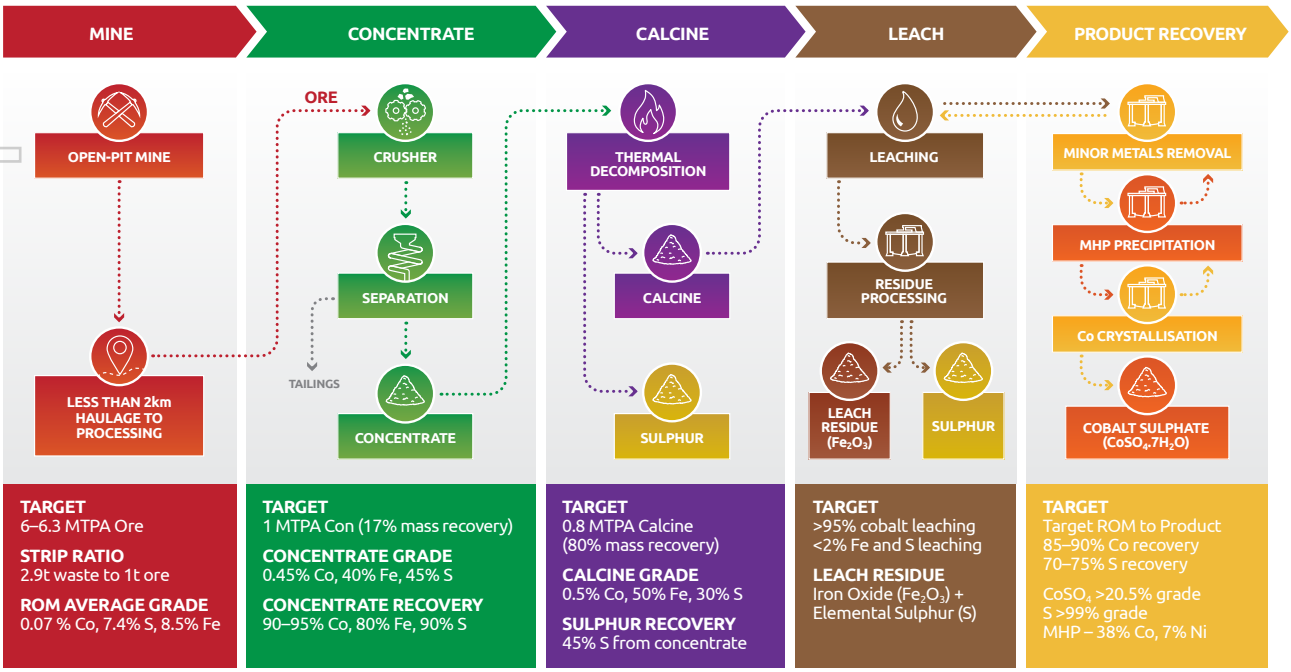
Figure 6 – **Broken Hill plant. Left: Iron oxidation and precipitation circuit. Right: Installation of iron polishing and MHP precipitation circuits.**

# 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 first an intermediate Mixed Hydroxide product (MHP), which subsequently can be further refined into battery grade cobalt sulphate. The COB process-block flowsheet is shown below.

Figure 7 – **BHCP process diagram. The BHCP process flowsheet and production target parameters are as released in the market announcement titled 'Broken Hill Cobalt Project (BHCP) Project Update 2020'.**



# 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 critical 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 (f) and LinkedIn (in). Please don't hesitate to join the 'COB friends' on social media and to join our newsletter mailing list at our website.

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**This announcement was approved by the Board of Directors.**

# 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

- 12 May 2022: COB advances Demonstration Plant Commissioning
- 16 September 2021: BHCP Resource Update
- 10 September 2021: Premium cobalt samples finalised
- 05 July 2021: Transition to Demonstration Plant
- 23 March 2022: COB commences underground development to support Demonstration Plant

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.

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