Market Update

09 December 2024

Cobalt Blue Holdings Limited

A Green Energy Exploration Company

ASX Code: **COB**

Commodity Exposure:

Cobalt & **Sulphur**

Directors & Management:

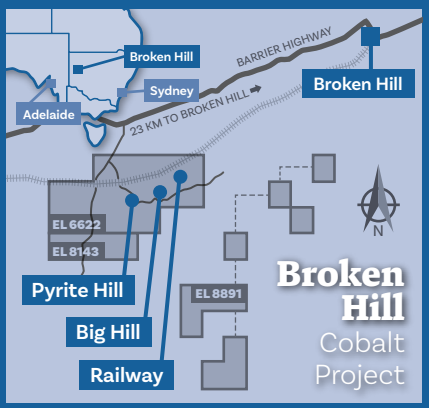
Robert Biancardi	Non-Exec Chairman
Hugh Keller	Non-Exec Director
Joe Kaderavek	CEO & Exec Director
Danny Morgan	CFO & Company Secretary

Capital Structure:

Ordinary Shares at 09/12/2024:	**422.5m**
Unlisted options/rights:	**46.7m**
Market Cap (undiluted):	**$29.57m**

Share Price:

Share Price at 09/12/2024:	**$0.070**



Cobalt Blue Holdings Limited

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Highlights

Cobalt Blue and Mount Isa City Council Sign MOU to Develop Sulphuric Acid Supply Solution

KEY POINTS

- Cobalt Blue Holdings Limited (**COB**) and Mount Isa City Council (**MICC**) have announced the signing of a Memorandum of Understanding (**MOU**) to assess solutions to the looming sulphuric acid supply shortage in North West Queensland.
- This shortage, caused by the imminent closure of Mount Isa Mines' copper smelter, will create a significant deficit in the market and jeopardise a significant proportion of the region's industrial employment base.
- COB has developed and patented a minerals processing technology for treating pyrite and demonstrated the potential economic recovery of elemental sulphur and metals from pyrite deposits.
- This MOU sets out a partnership in which COB will provide advice to MICC on the requirements, challenges and barriers to a potential pyrite tailings re-processing operation to produce sulphuric acid.
- COB has previously demonstrated its proprietary technology at its Broken Hill based demonstration facility with large scale operations over the last 5 years producing around 10 tonnes of high purity elemental sulphur from pyrite feedstocks.

Cobalt Blue Holdings Limited (ASX: **COB**) is pleased to announce the signing of a Memorandum of Understanding (**MOU**) with the Mount Isa City Council (**MICC**) to assess solutions to the looming sulphuric acid supply shortage in North West Queensland.

The looming sulphuric acid shortage

The announced 2030 closure of the Glencore Mount Isa copper smelter will create a critical shortfall of sulphuric acid, a vital resource for numerous industries in the region, including the fertiliser, metallurgical, and chemical sectors[1]. This shortage threatens to impact thousands of jobs and hinder economic growth.

1 *Sulphuric Acid Supply Study; Report prepared for the Queensland Government, public version. 01/07/2024. CRU International Ltd and Core Resources Pty Ltd. https://www.statedevelopment.qld.gov.au/__data/assets/pdf_file/0018/94500/sulphuric-acid-supply-study.pdf*

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To mitigate this challenge, COB and MICC have agreed to collaborate on the assessment and feasibility of a potential Mt Isa-centred pyrite tailings re-processing operation to produce sulphuric acid.

COB's **ReMine+** technology is poised to play a crucial role in the collaboration. By reprocessing pyrite and other sulphide-rich mine tailings, ReMine+ can recover valuable metals (including gold, cobalt, nickel, and copper) while simultaneously generating either elemental sulphur or sulphuric acid. COB has successfully evaluated the application of ReMine+ to pyrite feedstocks from various regions, including in Queensland[2] and Canada[3].

A signing ceremony was held at Council Chambers in Mount Isa this morning, Monday, 9 December 2024.

Peta MacRae, Mayor of Mount Isa, said: "*This MOU with Cobalt Blue aligns with Council's commitment to a sustainable future for our industries, economy, environment, and communities. It demonstrates our commitment to developing a locally-made solution to the looming sulphuric acid shortage that will otherwise have a huge negative impact on many of our largest industries. Mount Isa already has expertise in the production of sulphuric acid and has existing air monitoring systems in place to ensure community safety. Cobalt Blue's technology solves the issue of dealing with old tailings as well as reinforcing the economics of the supply chain for the whole of Australia. It also reduces the sovereign risk of relying on international sulphuric acid supply.*"

Joe Kaderavek, CEO of Cobalt Blue, added: *"Queensland's North West Minerals Province offers a wealth of opportunity for sustainable mining and resource recovery. Our ReMine+ technology can unlock the value of these resources and produce essential commodities, like sulphuric acid, which is critical across several industries in the region. This MOU underscores the resilience and innovation that prevails in Australian mining communities."*

Figure 1 – **Cobalt Blue CEO Joe Kaderavek and Mount Isa City Mayor Peta MacRae Sign the MOU to Develop Sulphuric Acid Supply Solution**

Next steps in the partnership

The next steps include assessing the commercial and operational viability of different technologies, feedstocks, and outputs. COB will aim to complete proof of concept testwork within 16 weeks of receipt of sample, with MICC assisting, where possible, to source samples. COB will also advise MICC on the requirements, challenges, and barriers to a potential pyrite tailings reprocessing operation in the region to produce sulphuric acid.

During the assessment process, MICC intends to set aside land upon which to build and operate a pilot-scale plant that would evaluate the amenability of technologies to process pyrite into sulphur and sulphuric acid and create associated business and community benefits. COB will provide advice and detailed information on the construction, power and other consumables required for the plant.

2 *See AusIMM Critical Minerals Conference Presentation lodged with ASX on 21 August 2024 (pg 12).*

3 *See ASX Announcement dated 23 November 2023 "Positive Results – Preliminary Flin Flon Tailings Testwork."*

By combining MICC's local knowledge and infrastructure with COB's advanced technology, this collaboration aims to deliver a sustainable and economically viable solution to the sulphuric acid supply challenge in North West Queensland. Developing a commercially viable, low impact solution to acid supply, whilst alleviating long term environmental liabilities and generating critical and other metal revenue through tailings re-processing is in the interest of all stakeholders.

This video summarises COB's the patented process to extract valuable metals and sulphur from mine waste to minimise environmental risks: ReMine+ | Positive Impact from Mine Waste.

The MOU shall remain in force until 31 December 2029 unless terminated earlier by a party. A party has the right to terminate the MOU with written notice.

Cobalt Blue expertise – high purity elemental sulphur

COB has previously designed, built and operated a demonstration facility utilising its proprietary technology. Over the last five years a series of large scale testwork programs have been executed with around 10 tonnes of high purity elemental sulphur produced utilising available pyrite concentrate feedstock from the Broken Hill Cobalt Project. The sulphur was produced via a commercial rotary kiln typically operating at 150–300kg/hr throughput capacity.[4] Samples from the testwork were then shared with potential customers to gauge the quality of the resulting elemental sulphur, with positive assessments underpinning the viability of the technology.

Figure 2 – **Elemental sulphur prills produced from Broken Hill Demonstration Plant output**

Elemental sulphur is a clean, low hazardous product used as a precursor to manufacture sulphuric acid, providing industry with significant advantages in handling, storage and transport and allowing sulphuric acid to be produced directly at the customer site driven by local production requirements. COB's technology, focusing on elemental sulphur production, was included as a solution in the "Queensland Sulphuric Acid Study (August 2024)" (Core Resources Ltd) delivered to the Queensland Government for further assessment.

COB's decision to focus on elemental sulphur production, rather than sulphuric acid, for the Broken Hill Cobalt Project was driven by the low local sulphuric acid demand profile. This demand profile is in sharp contrast to that of Queensland's North West Minerals Province, which the 2024 Sulphuric Acid Supply Study estimates to grown from 1.30Mt/year to 2.8–5.0Mt/year in the future. A focus for work under the MOU with MICC will be to demonstrate the flexibility of COB's process for direct production of sulphuric acid. The benefit of the COB process is that sulphur gas excess to acid requirements can be cooled and prilled as elemental sulphur for safe storage against future acid deficit, ensuring security of supply for the region.

4 *See ASX Announcement dated 22 March 2023 "Definitive Feasibility Study Update"*

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Figure 3 – **Elemental sulphur production at the Broken Hill Demonstration Plant**

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.

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