#### **Cobalt Blue Holdings Limited**

ACN: Address: Social:

614 466 607 Level 2, 66 Hunter St, Sydney NSW 2000 Website: www.cobaltblueholdings.com info@cobaltblueholdings.com f Cobalt.Blue.Energy in cobalt-blue-holdings



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# CEO's Letter to Shareholders

# **Update for September 2017**

Cobalt Blue (ASX:COB) has achieved considerable progress since listing on the ASX in February 2017. COB's recently completed Thackaringa drilling campaign (8,000 metres) declared a combined 55Mt Inferred and Indicated Resource at 910 ppm cobalt (5 June 2017) in addition to a successful Scoping Study (11 July 2017), which will be used a baseline for our upcoming Pre-Feasibility Study (PFS).

Even after the considerable ground work completed so far, the mineralisation remains open at depth and along the entire 4.5km resource strike length. Clearly, more work is required to outline the full scope of the cobalt resource.

With this in mind, our next stage of field work is about to commence.

#### **Aerial Geophysical Survey**

Firstly, we will be conducting an aerial geophysical survey over the entirety of the Thackaringa tenements (EL6622, EL8143, ML86 & ML87). This work involves a helicopter-borne electromagnetic system acquiring high resolution data over approximately 655 line-kilometres at 100m line spacing. The survey began on 22 September with completion expected by 30 September.





For investors interested in more detail, we are using a Versatile Time-Domain Electromagnetic geophysical system. The system provides a combination of attractive penetration depth (>400m) and high spatial resolution. The survey will be conducting passes that are generally perpendicular to the cobalt bearing pyrite horizons, so as to increase the effective contrast of any anomalies detected.

Processing and modelling of acquired data is then expected by mid November. A 3D geological model will be completed in parallel and expected to be completed by the end of the year.

The survey represents a strong option to better understand Thackaringa's geological potential. The work could significantly expand the cobalt footprint currently mapped at Thackaringa. This additional potential could add further longevity and scale to an already world class project.

#### **Drilling Program**

Our target remains a 40Mt Indicated Resource by 1 April 2018 with drill rigs mobilising to site and drilling to commence next week. The program consists of a total 90 holes comprising both Reverse Circulation and Diamond drilling across the Railway, Pyrite Hill and Big Hill deposits. The Railway deposit will be the first priority with Pyrite Hill to follow.

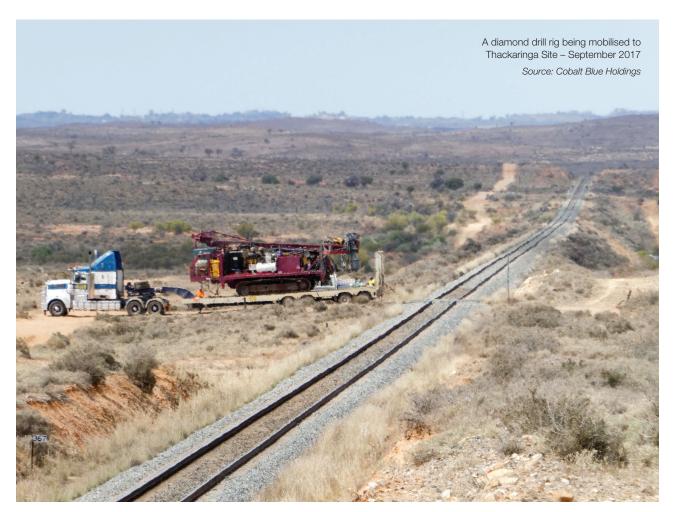
Designed to underpin Mineral Resource and Ore Reserve estimation, this significant campaign will provide important geological and geotechnical information required for Pre-feasibility studies.

The drill program will dramatically improve geological confidence by reducing the average drill spacing to 50m along strike. The majority of holes will target shallow mineralisation to 150m below surface, although previous drilling confirmed extensions to 300m below surface.

We will release updates on this drilling program periodically as assay results become available.

#### **Metallurgical Testwork**

The recently delivered Scoping Study concluded that the optimal processing path tested during the study achieved a ~90% cobalt recovery from in-ground to payable metal in addition to producing elemental sulphur. That result is a significant achievement and forms a strong baseline to move forward.





Work has now commenced on a PFS. The testwork will be centred on treating ~800 kg of ore through the proposed process: concentration; thermal treatment; leaching; and product recovery. The ore samples were collected in the 2016 diamond drilling program, and are representative of Railway Hill and Pyrite Hill deposits

The program is designed to deliver 'reliable and repeatable' results at a scale 10-50 times larger than the tests used in the Scoping Study, where the 'proof-of-concept' was determined. The results will be used to conducted engineering studies and cost estimates for the PFS.

Unit Operation	Scoping Study Options Tested	Pre-Feasibility Study Selected Process Testing	Schedule 2017
Concentration	<ul><li>50-100 kg ore</li><li>Flotation</li><li>Gravity</li><li>Magnetics</li></ul>	<ul><li>800 kg ore</li><li>Gravity, followed by scavenger float</li></ul>	September (in progress)
Thermal Treatment	<ul> <li>2 kg concentrate</li> <li>Roasting (SO<sub>2</sub> for acid)</li> <li>Decomposition (no acid) – elemental sulphur</li> </ul>	<ul> <li>100 kg concentrate</li> <li>Decomposition (no SO2) – elemental sulphur</li> </ul>	October
Leaching	<ul> <li>2 kg concentrate</li> <li>High temp POX Atmospheric leach</li> <li>1 kg calcine</li> <li>Low temp POX Atmospheric leach</li> </ul>	<ul><li>80 kg calcine</li><li>Low temp POX / Atmospheric leach</li></ul>	October-November
Product Recovery	Not tested	<ul><li>IX + crystallisation</li><li>0.5 kg of cobalt</li></ul>	November

Source: Cobalt Blue Holdings

Test work on the gravity circuit has begun and investors can expect an update by mid October. Overall, we expect to complete the majority of testwork by December.

COB remains focused on proving up the processing and economics of our unique ore. Our goal is to prove a long life mining operation capable of operating at cobalt cycle troughs, and of course generating substantial margins at current market pricing.

## Thackaringa Project Timeline

Our project timeline remains as below, with the 40Mt Indicated Resource target due to be declared by 1 April 2018, followed shortly thereafter by the completed PFS (30 June 2018). We will look for opportunities to accelerate these timelines where possible.

Aug 2016 - Feb 2017	1 April 2018	30 June 2018	30 June 2019	
Complete	Stage One	Stage Two	Stage Three	Stage
Cobalt Blue formed	A\$2.0m expenditure in	A\$2.5m expenditure	A\$5.0m expenditure	Four
JV & Farm-in	the ground delivered. Delivered:	Feasibility Study     Study + Project Approvals       Target Date: 30 June 2018     Target Date: 30 June 2019	Decision to Mine	
JORC 2012 upgrade	<ul> <li>Inferred Resource Upgrade</li> <li>Scoping Study</li> </ul>			Project Finance
Cobalt Blue listed	Deliver: • Indicated Resource Upgrade • Aerial Geophysical Program Target Date: 1 April 2018			

Source: Cobalt Blue Holdings

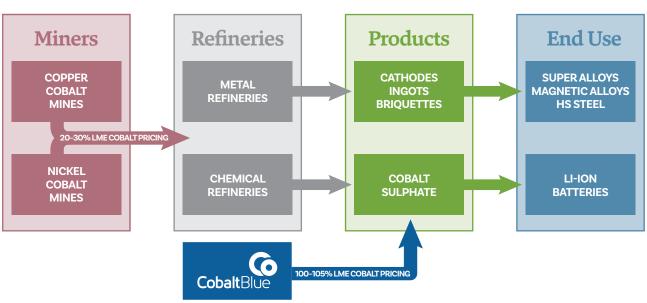


#### **Our Cobalt Strategy**

Globally, cobalt demand is split into two streams - namely batteries and traditional alloys. These vastly different demand drivers are causing rapid market bifurcation and presenting a strong opportunity for COB.

Our focus is on the battery market, and in particular on combining cobalt and sulphur into a cobalt sulphate crystal. These crystals are typically priced at parity or small premium to the London Metal Exchange cobalt price. In contrast, lower value cobalt concentrates are priced at only 20-30% of the same benchmark.

Thackaringa ore, with both cobalt and sulphur occurring naturally, has a significant advantage in this production chain. This advantage is amplified thanks to the availability of people, power, water, road and rail at nearby Broken Hill.



### The Global Cobalt Supply Chain

Source Cobalt Blue Holdings

Investors can expect regular updates as we progress towards Stage One project delivery, in particular drilling program and metallurgical test work updates over the course of Q4 2017.

Regards.

Jula

Joe Kaderavek Chief Executive Officer **Cobalt Blue Holdings Limited** 



#### **Released Information**

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

- **11 July 2017:** Scoping Study update Strong Potential for Commercialisation after Processing Testwork
- 03 July 2017: Thackaringa Cobalt Project Major Geophysical Survey Positive news
- **05 June 2017:** Significant Resource Upgrade for the Thackaringa Cobalt Project

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.

### **Competent Person Statement**

The information in this report that relates to exploration results, Mineral Resources and Targets is based on information compiled by Mr Anthony Johnston, BSc (Hons), who is a Member of the Australian Institute of Mining and Metallurgy and who is a non-executive director of Cobalt Blue Holdings Limited, the Chief Executive Officer of Broken Hill Prospecting Limited and the Technical Manager of the Joint Venture. Mr Johnston has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 & 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Johnston consents to the inclusion in the announcement of the matters based on his information in the form and context that the information appears.