Quarterly Activities Report

CobaltBlue
green energy technology

31 October 2022

Cobalt Blue Holdings Limited

A Green Energy Exploration Company

ASX Code: **COB**

Commodity Exposure:

Cobalt & **Sulphur**

Directors & Management:

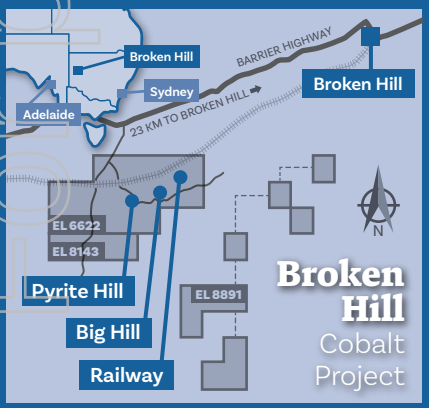
Robert Biancardi	Non-Exec Chairman
Hugh Keller	Non-Exec Director
Robert McDonald	Non-Exec Director
Joe Kaderavek	CEO & Exec Director
Danny Morgan	CFO & Company Secretary

Capital Structure:

Ordinary Shares at 31/10/2022:	**330.6m**
Unlisted Options/Rights:	**9.1m**
Market Cap (undiluted):	**$217m**

Share Price:

Share Price at 31/10/2022:	**$0.655**



Cobalt Blue Holdings Limited

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Highlights

September 2022 Quarterly Activities Report

BROKEN HILL COBALT PROJECT

- Feasibility Study update
- Bulk Sample for Demonstration Plant works
- Concentrator works
- Demonstration Plant update
- Critical Minerals Accelerator Initiative Grant

COBALT TRENDS

- Metal prices find a near-bottom in August
- EV sales forecast to grow ~ 50% in 2022
- Impacts of the Inflation Reduction Act

COBALT IN WASTE STREAMS PROJECT UPDATE

- Initial sample test work completed. Second sample test work underway shortly

CORPORATE

- Investor webinars
- Expenditure
- Other

Broken Hill Cobalt Project (BHCP)

Feasibility Study update

Work on the Feasibility Study continued during the quarter. Activities included:

- Demonstration Plant commenced operations
- Feasibility Study engineers progressing infrastructure reviews of water and power
- Drilling for waste rock sample collection commenced late in the quarter. The samples will be subject to laboratory testwork for acid generation properties
- Soil investigations commencing along with additional ecological studies

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Bulk Sample for Demonstration Plant works

Underground mining activities for the bulk sample ceased during the quarter, with just over 148m of development completed. Mining delivered 4,500 t of ore for processing at the Demonstration Plant, compared to the original plan to mine 3,500–4,000 t. The additional material will be utilised for scale geometallurgical studies intended to support process plant optimisation.

Concentrator operations

During the quarter concentrator activities commenced. The concentrator uses gravity separation to separate the cobalt-pyrite from the ore. The ore was milled from 4 mm top size to a target of 1.5 mm top size using a roller mill. This simulated the use of a High-Pressure Grinding Roll (HPGR) mill in the circuit. 500 t of ore was processed to produce 125 t of concentrate. The average grade of gravity circuit concentrate was 4,360 ppm cobalt across the first phase of testwork, and a mass rejection of 75% to tailings.

In the next phase of the testwork program, a ball mill will be used to prepare finer feed material for the circuit (target P80 600–800 um). Additionally, a float circuit will be used to recover the fractions of pyrite (<75 um). Overall target recoveries of >90% are expected with these inclusions. These recoveries and upgrades are in line with earlier technical studies.

Figure 1 – **Ore feed hopper to concentrator circuit**

Figure 2 – **Ore conveyor to roller mill**

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Figure 3 – **Concentrator plant (spirals, classifier and concentrate bags)**

Figure 4 – **Float concentrate**

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Figure 5 – **Dewatering cyclone for final tailings**

Figure 6 – **Concentrate bags stored at the demonstration plant**

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Demonstration Plant update

During the quarter COB transitioned to operations at the Demonstration Plant with concentrate treatment commencing.

The treatment of cobalt-pyrite concentrate involves two key steps – (1) conversion of pyrite into pyrrhotite and elemental sulphur and (2) leaching of the pyrrhotite. The solubilised cobalt is then recovered by precipitation as a mixed hydroxide with grades of 30% cobalt and 7% nickel (typical Pilot Plant results from 2021).

The Demonstration Plant kiln was successfully commissioned during the quarter, with the first 5 tonnes of concentrate processed. Feed rates to the kiln were 150–200 kg/hr. Further work is ongoing to improve off-gas handling for recovery of the sulphur.

Figure 7 – **Commissioning of kiln with concentrate**

Critical Minerals Accelerator Initiative Grant

In late April 2022 the previous Australian Government announced a $15m grant award to COB to accelerate the Feasibility Study for the BHCP. During the quarter the Minister for Resources subsequently confirmed the grant to COB.

In order to access the grant monies, COB will need to enter into a grant agreement with the Commonwealth. The agreement will include standard industry conditions, including payment dates, reporting requirements and using monies only on eligible project expenditure. COB expects to receive a grant contract shortly.

The grant funding will enable COB to accelerate the development of the BHCP by expanding the scope of Feasibility Studies, bring forward infrastructure and services work packages, and decrease start-up commissioning risks.

The grant will deliver significant benefits and value by:

- accelerating BHCP to "Execution Ready Status" for Project Finance. This is defined as having offtake agreements, approvals/permits, contracts, or deposits paid for long-lead items, and a defined schedule and contract for Engineering, Procurement, Construction & Management (EPCM).
- reducing BHCP implementation risks, by expanding the technical scope of FS-DFS studies and commencing workforce planning and regulatory approvals earlier. In turn, this would improve investor or lending institution confidence to support the project.

Cobalt Trends

Prices find a near-term bottom in August

Cobalt prices found a trough in mid-August (ultimately dropping 40% from the June 2022 quarter peak) and have since stabilised. The overarching macroeconomic environment was likely the primary cause of the decline, with pressure on all commodity prices stemming from GDP growth shrinking in most major economies. Events in China also impacted pricing amid pandemic-related lockdowns.

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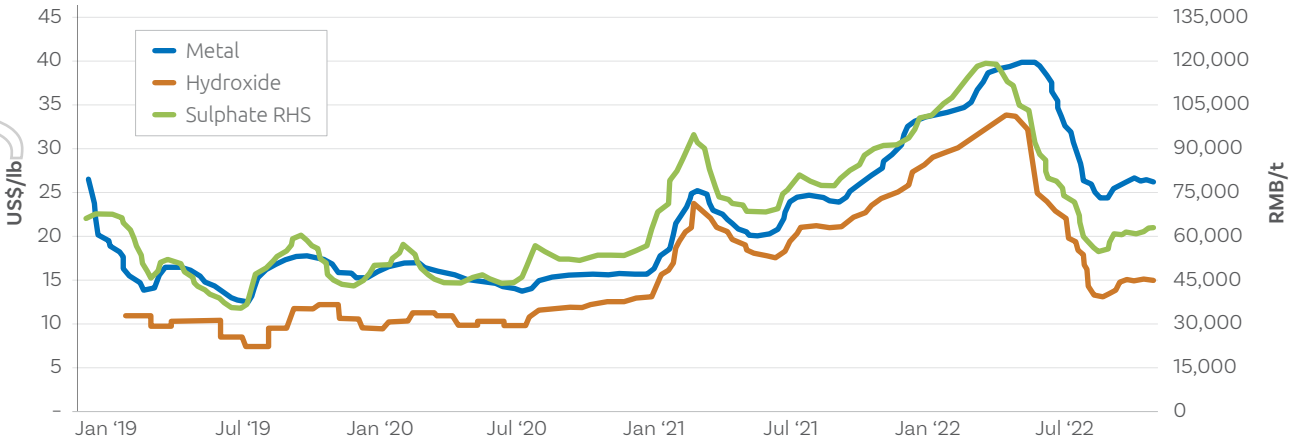
Figure 8 – **Cobalt prices bottomed in September 2022 quarter**

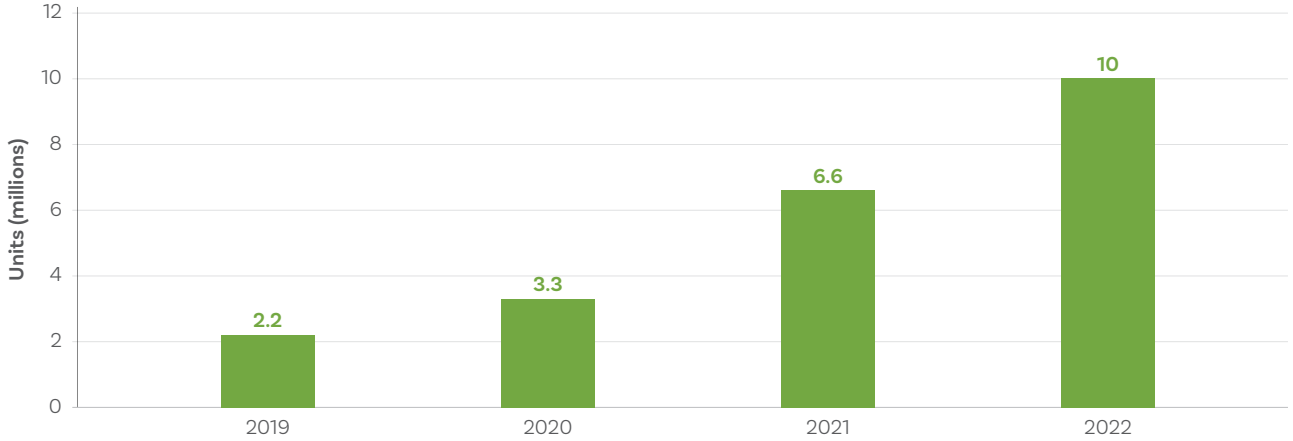


Source: S&P Global Commodity Insights, Cobalt Blue Holdings Limited

EV sales forecast to grow ~50% in 2022

Global EV sales remain robust compared with other economic indicators. In China, although the growth rate has slowed slightly over recent months, EV sales (though September) are up 105% year on year (YoY). This compares with 2% sales growth in Germany, 36% in the USA and 23% in the UK. Rho Motion expect 2022 EV sales to total 10 million units, a 51% increase (2021:100% increase).

Figure 9 – **EV sales and 2022 outlook**



Source: Rho Motion

Impacts of the Inflation Reduction Act

During August 2022 the United State introduced the Inflation Reduction Act (IRA). The IRA has attracted attention across the global battery supply chain. Within this multifaceted legislation, there are several provisions designed to incentivise companies to mine and process materials either domestically or with US Free Trade Agreement (FTA) countries (includes Australia). Aimed to reduce the industry's reliance on China, the IRA provides subsidies on EVs that have 40% of critical minerals used in their batteries sourced from the US or trade allies by 2024, rising to 80% by 2027. This comes on the back of an already ambitious target of 50% of all new vehicles produced in the US by 2030 being electric. To meet these targets, a major ramp up of domestic and FTA-friendly battery supply chains is required.

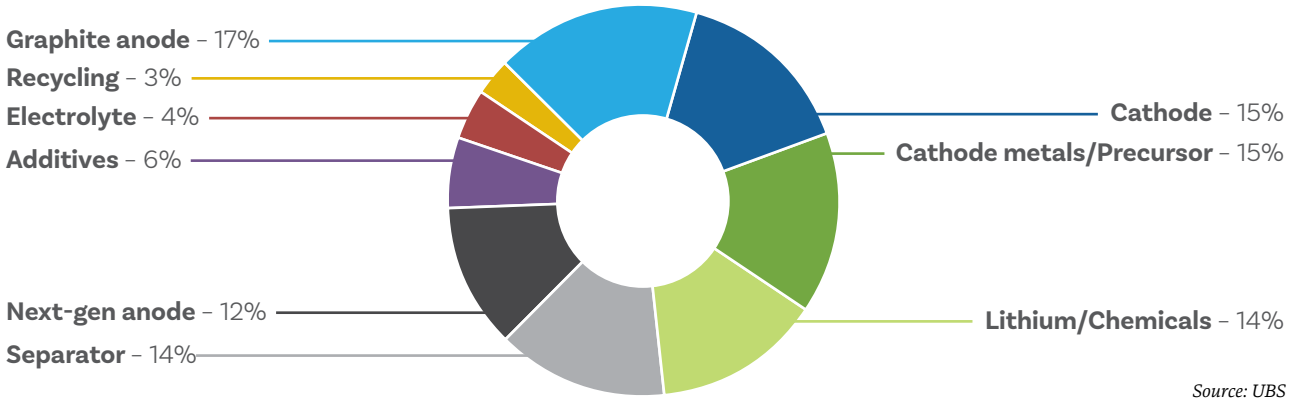
Building out a new battery belt: The impact of the IRA was almost immediate, with many companies across the supply chain announcing new or adjusted investment plans. According to a recent Forbes report, roughly US$28 billion in new manufacturing investment was announced in the weeks following the IRA's signing, many of which in order to qualify for the incentives. Some of these development plans include:

- GM – announced it plans to invest US$760 million for its first US EV-only powertrain or propulsion facility, as well as an additional US$491 million to make various parts for future vehicles at another existing plant.
- BMW – announced a US$1.7 billion investment to build EVs and batteries in South Carolina.
- Kia – will shift some of its EV assembly to the US by 2024.
- GEM (one of China's biggest suppliers of battery raw materials) – will join with its South Korean partner EcoPro, to build a lithium-ion battery materials plant in South Korea.

The Biden administration has subsequently awarded US$2.8 billion in grants to 21 EV and battery supply chain projects across 12 states.

These first moves following the signing of the IRA are expected to only further incentivise industry players to secure mining and processing capacity.

Figure 10 – **Categories of US government EV and battery supply chain funding**



Source: UBS

Cobalt in Waste Streams Project update

Testing of the first sample from the Queensland Department of Resources was finalised during the quarter. Second sample test work will be undertaken shortly.

Corporate News

Investor webinars

COB conducted two investor webinars during the quarter. The webinars provided a business/BHCP update and a joint presentation with Rho Motion (energy transition consultants). The webinars were well attended. A copy of the webinar presentations can be found on COB's website.

Expenditure

COB's activities primarily relate to exploration and evaluation of the BHCP. There were no activities related to production or development. During the quarter COB incurred[1] $6.2m on exploration and evaluation activities, primarily relating to technical services, including for the bulk sample works, demonstration plant operations and other Feasibility Study works.

COB's accompanying Appendix 5B (Quarterly Cashflow Report) includes an amount in item 6.1 which constitutes directors' fees and salaries.

Other

During the quarter COB's share price fluctuated between 60 cents and 97 cents.

The Company's placement options (originally issued in two tranches in June and August 2021) expired on 15 August 2022. 98% of total placement options were exercised and converted into ordinary shares, raising a total of just over $11m, before costs.

1 *Refers to expenditure incurred on an accounting accruals basis as distinct from expenditure reported in the Appendix 5B, which refers to expenditure on a cash basis. The amounts were extracted from the unaudited records of the COB Group.*

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COB Timeline

The expected development schedule for the Broken Hill Cobalt Project ('**BHCP**') is shown below.

Figure 5 – **BHCP development schedule.**

	PRE-2021	2021	2022	2023	2024	2025
Business Achievements	100% Project Ownership CRC-P Grant	Global Cobalt Sample Program Major Project Status and CMAI grant	Offtake Cobalt Qualification Program – 2022 Major Project Status and CMAI grant	Final Investment Decision	Construction Period Mine Development EPC Renewable Power Contracts	Refinery Commissioning First Commercial Production
Technical Studies	Project Update 2020 PFS 2018	Feasibility Study	Feasibility Study	Definitive Feasibility Study and Approvals		
Process Testing	Pilot Scale Testwork	Pilot Plant – 30 Tier 1 Partners Offtake Contract Negotiations (begin)	Larger scale (24/7) Operations Commercial Qualification Samples Bulk Sample			First On Specification Production
Environmental Approvals		EIS Field Studies	EIS Field Studies	EIS Submission SSD Determination	ESG/CO_2 Reporting	ESG/CO_2 Reporting Operating Permits (approved)
	PRE-2022		MILESTONES			

Cobalt Blue Background

Cobalt Blue (ASX:COB) is a mining and mineral processing company focussed on the development of the Broken Hill Cobalt Project in New South Wales, Australia. The portfolio of four granted tenements in a total area of 63km^2 containing large-tonnage cobalt-bearing pyrite deposits are located 23 km west of Broken Hill and 400 km by rail from Port Pirie. COB has developed a patented minerals processing technology for treating pyrite feedstocks targeting 85-90% recovery of cobalt from ore to product (as Mixed Hydroxide Precipitate or Cobalt Sulphate).

The Broken Hill Cobalt Project has a targeted project life of +20 years and will be a significant employer in Regional NSW with around 400 full-time jobs generated. COB will become a global top 10 producer of cobalt, a key critical mineral with strong demand growth from lithium-ion batteries widely used in electric vehicles and energy storage systems.

The expected timeline for the BHCP is subject to various risks, some of which are outside the control of the Company and which include successful and timely completion of project milestones, funding availability, government and other third party approvals.

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.

This announcement was approved by the Board of Directors.

For more information, please contact:

Joel Crane
Investor Relations/Commercial Manager
joel.crane@cobaltblueholdings.com

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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

- 6 October 2022: Demonstration Plant – Ore Processing Update
- 17 August 2022: Cleansing Notice
- 26 July 2022: Demonstration Plant Transitioning to Operations

COB confirms it is not aware of any new information or data that materially affects the information included in the original market announcements and where applicable in the case of estimates of Mineral Resources or Reserves, 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.

Tenement Holding

The COB Group held the following mining tenements at the end of the quarter:

Broken Hill Cobalt Project

Tenement	Location	Interest at end of quarter
EL 8891	Broken Hill Region, New South Wales	100% legal and beneficial interest
EL 6622	Broken Hill Region, New South Wales	100% legal and beneficial interest
EL 9254	Broken Hill Region, New South Wales	100% legal and beneficial interest
EL 8143	Broken Hill Region, New South Wales	100% legal and beneficial interest
EL 9139	Broken Hill Region, New South Wales	100% legal and beneficial interest
ML 86	Broken Hill Region, New South Wales	100% legal and beneficial interest
ML 87	Broken Hill Region, New South Wales	100% legal and beneficial interest

No tenements or farm-in or farm-out agreements were disposed of during the quarter.

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Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

COBALT BLUE HOLDINGS LIMITED

ABN	Quarter ended ("current quarter")
90 614 466 607	September 2022

Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 months) $A'000
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	-	-
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(549)	(549)
	(e) administration and corporate costs	(829)	(829)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	4	4
1.5	Interest and other costs of finance paid	(1)	(1)
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	62	62
1.9	**Net cash from / (used in) operating activities**	**(1,313)**	**(1,313)**
2.	**Cash flows from investing activities**		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	(5)	(5)
	(d) exploration & evaluation	(5,407)	(5,407)
	(e) investments	-	-
	(f) other non-current assets	(18)	(18)

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Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 months) $A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (Research and development incentive refund & government grants)	595	595
2.6	**Net cash from / (used in) investing activities**	**(4,835)**	**(4,835)**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	3,750	3,750
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other	-	-
3.10	**Net cash from / (used in) financing activities**	**3,750**	**3,750**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	10,530	10,530
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,313)	(1,313)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(4,835)	(4,835)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	3,750	3,750

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Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 months) $A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	**Cash and cash equivalents at end of period**	**8,132**	**8,132**

5.	**Reconciliation of cash and cash equivalents** at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	**Current quarter $A'000**	**Previous quarter $A'000**
5.1	Bank balances	6,329	8,667
5.2	Call deposits	1,803	1,863
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**8,132**	**10,530**

6.	**Payments to related parties of the entity and their associates**	**Current quarter $A'000**
6.1	Aggregate amount of payments to related parties and their associates included in item 1	287
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.

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7.	**Financing facilities** *Note: the term "facility' includes all forms of financing arrangements available to the entity.* *Add notes as necessary for an understanding of the sources of finance available to the entity.*	**Total facility amount at quarter end $A'000**	**Amount drawn at quarter end $A'000**
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	**Total financing facilities**	-	-
7.5	**Unused financing facilities available at quarter end**		-

7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.

On 17 January 2020 the Company executed agreements with American Rare Earths Limited (ASX: ARR) to acquire 100% ownership and legal title of the Broken Hill Cobalt Project (including all tenements). The consideration included a five-year $3,000,000 secured promissory note (PN) issued to ARR, with interest of 6% per annum payable in years 4 and 5. The PN can be repaid by the Company at any time in whole or in part without penalty. Once the PN is repaid in full, the security will be extinguished.

8.	**Estimated cash available for future operating activities**	**$A'000**
8.1	Net cash from / (used in) operating activities (item 1.9)	(1,313)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(5,407)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(6,720)
8.4	Cash and cash equivalents at quarter end (item 4.6)	8,132
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	8,132
8.7	**Estimated quarters of funding available (item 8.6 divided by item 8.3)**	1.21

Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.

8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:

8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: Yes

8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: The Company maintains dialogue with the investment community regarding its planned activities and believes that when the Board forms the view on when timing is appropriate, a capital raising would be supported.

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8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: Yes. The Company expects to be able to continue its operations and meet its business objectives, based on its response to question 8.8.2 above.

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

Compliance statement

1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.

2 This statement gives a true and fair view of the matters disclosed.

Date: 31 October 2022

Authorised by: The Board
(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.

2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.

3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.

4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [*name of board committee – eg Audit and Risk Committee*]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".

5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.