

17th October 2022

Tujuh Bukit Copper Project Update – Scoping Study Completed

Highlights:

- The Scoping Study, based on both historical drilling and 83,594 metres of drilling completed since 2017, confirms positive economics for the development of a globally significant copper and gold underground mine
- The Scoping Study was independently prepared by leading Australia based technical consultants ORELOGY with significant specialist contributions from Stantec, DRA, Ausenco and Hatch
- The Tujuh Bukit Copper Project hosts Mineral Resources of 1,784Mt at 0.46% copper and 0.50 g/t gold containing 8.2Mt of copper and 28.6Moz of gold, including an Indicated Resource of 372Mt at 0.61% copper and 0.68 g/t gold – an increase in the Indicated Resource is expected in 1Q 2023
- Mine life of 40 years with an estimated Life of Mine (LOM) production of 2.9Mt of copper and 10.1Moz of gold. Project economics based on two scenarios are summarised in the table below

	Base Case	Inflation Case ¹
Commodity Prices		
Copper (US\$/t)	8,990	Base Case + 2% p.a.
Gold (US\$/oz)	1,670	Base Case + 2% p.a.
Operating Cost Summary		
Copper All-In Sustaining Cost (AISC) (US\$/lb) (net of gold credits)	0.50	0.12
Pre-Tax Results (LOM)		
Free Cash Flow upon Commencement of Production (US\$m)	22,033	38,845
Post-Tax Results (LOM)		
Revenue (US\$m)	41,595	59,336
EBITDA (US\$m)	23,851	40,663
Free Cash Flow upon Commencement of Production (US\$m)	17,640	30,758

- Estimated pre-production capital investment of US\$2.1 billion, including 25% contingency. Opportunity to significantly reduce pre-production capital investment via a potential Sub-Level Cave (SLC) operation
- Anticipated to be a low-cost underground operation with a 1st quartile cost and a Base Case LOM All-In Sustaining Cost (AISC) of US\$0.50/lb copper net of gold credits
- Clear pathway to achieve permitting and other pre-development works leveraging off the existing operations and infrastructure at the Tujuh Bukit Gold Mine
- The Pre-Feasibility Study (PFS) is targeted for completion in 1Q 2023 and will focus on an assessment of the first 20 years of production from the first lift of the block cave. The PFS will also assess the viability of a potential SLC operation. Maiden Ore Reserves will also be declared
- Merdeka is not subject to an Indonesian Mining Law divestment obligation in relation to its wholly owned Tujuh Bukit Copper Project and Merdeka expects the Tujuh Bukit Copper Project will add to the well-established Indonesian mining sector which hosts several world class mining operations and is expected to remain an attractive investment destination

¹ Inflation Case assumes Base Case copper and gold price assumptions plus a 2% per annum metals price inflation adjustment from 2025 onwards.

Jakarta, Indonesia – PT Merdeka Copper Gold Tbk (IDX: MDKA) (“Merdeka” or the “Company”) is pleased to announce a project update for its wholly owned Tujuh Bukit Copper Project (“**TB Copper**” or the “**Project**”), located in East Java, Indonesia. The Scoping Study confirms attractive project economics for the development of a globally significant, long life, underground mine producing gold and copper, a critical metal to supply the oncoming electrification and decarbonisation era.

Merdeka Chief Executive Officer, Simon Milroy commented,

“The independent Scoping Study confirms attractive project economics and TB Copper’s status as a Tier 1 project. We are working towards developing TB Copper into the world’s next great copper-gold mine, generating sustained economic and social benefits, in conjunction with effective and responsible environmental management. Merdeka is bullish on the long-term outlook for copper as the ongoing electrification of global transportation and transition to clean energy is driving significant new demand for the metal with experts predicting a projected global copper supply gap of ~3.3Mt by 2030. Merdeka recognises the in-situ value of TB Copper’s resource and intends to advance the development of the Project to maximise value for all shareholders.”

MINERAL RESOURCES

The TB Copper resource is a large-scale, copper-gold porphyry deposit, which lies beneath Merdeka’s operating Tujuh Bukit Gold Mine, that is suited for extraction using modern bulk mining methods. The Project hosts Mineral Resources of 1,784Mt at 0.46% copper and 0.50 g/t gold (copper equivalent grade of 0.63%) with 8.2Mt of contained copper and 28.6Moz of contained gold, including an Indicated Resource of 372Mt at 0.61% copper and 0.68 g/t gold².

Table 1. TB Copper Mineral Resource Estimate²

Resource Classification	Tonnes (Mt)	Cu (%)	Au (g/t)	Ag (g/t)	Mo (ppm)	Cont. Cu (Mt)	Cont. Au (Moz)	Cont. Ag (Moz)
Indicated	372.1	0.61	0.68	1.50	125.45	2.27	8.08	17.94
Inferred	1,411.8	0.42	0.45	1.36	120.31	5.94	20.53	61.85
TOTAL	1,784.0	0.46	0.50	1.39	121.38	8.21	28.61	79.78

In addition to the drilling completed previously, Merdeka has completed a total of 83,594 metres of drilling since 2017, comprising 72,887 metres of drilling from the underground exploration decline and 10,707 metres of drilling from surface.

There are approximately 15,000 – 20,000 metres of underground and surface resource definition drilling scheduled for the remainder of 2022. The drilling results will be incorporated into the PFS and support Merdeka in declaring Maiden Ore Reserves.

² Source: TB Copper Mineral Resources Estimate, reported at NSR6 >= US\$15/t. Resources and reserves information as at 31 December 2021. Copper equivalent grade calculated as follows CuEq = Cu grade + (Au equivalent factor x Au grade), Au equivalent factor = Au worth/Cu worth, with worth = price x recovery.

PROJECT SUMMARY

The Scoping Study envisages a large-scale underground block cave mine with a peak mill feed of 24Mtpa, which is estimated to produce 2.9Mt of copper and 10.1Moz of gold over a mine life of 40 years.

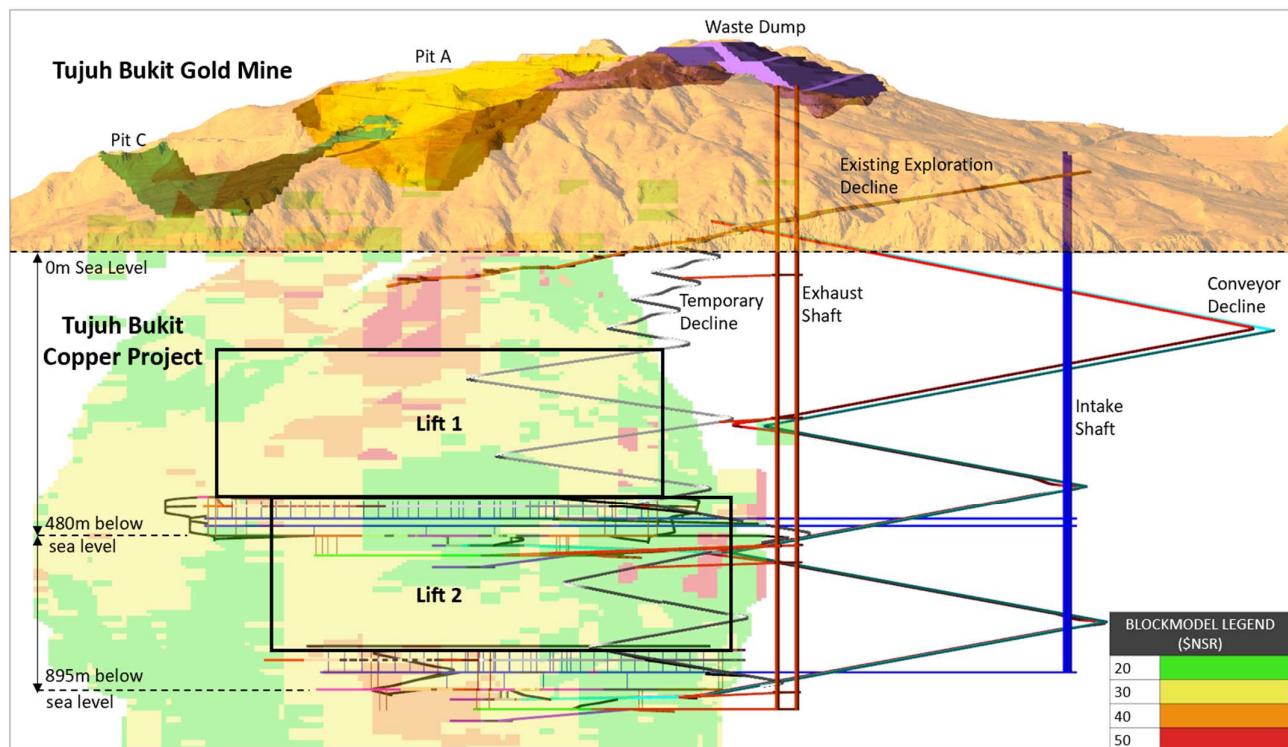
Mining and Production

The Scoping Study contemplates a two-lift conventional block cave mine and concentrator complex to extract approximately 700Mt of ore at 0.51% copper and 0.59 g/t gold.

The first lift of the block cave will supply ore for the first 20 years of production before a second deeper lift is developed.

The copper concentrator and related surface infrastructure construction will match the mining ramp up rate with two identical 12Mtpa conventional concentrators which will be commissioned sequentially. The mill feed will be delivered to a flotation plant that will produce a copper concentrate. The copper concentrate will be further processed by the Albion Process™ and Solvent Extraction – Electrowinning (“SX/EW”) to produce LME Grade A copper cathode and subsequently delivered to a Carbon-in-Leach (“CIL”) plant to produce gold dore.

Figure 1. Layout of TB Copper Two Lift Block Cave Operation



Pre-Production Capital Investment

The Scoping Study contemplates a pre-production capital investment of US\$2.1 billion, including 25% contingency, to reach first production. This capital expenditure includes the establishment of the block cave, construction of new surface plant and facilities to accommodate an initial 12Mtpa throughput. A further capital investment of approximately US\$890 million is required to construct additional plant and infrastructure facilities to support the full lift one production throughput of 24Mtpa.

Power Supply Arrangements

Bulk power will be supplied by the Indonesian national power supplier PLN. A Memorandum of Understanding (“MoU”) was signed between Merdeka and PLN on 15th September 2021 for the supply of 260MVA and which outlines the power development strategy and execution plans.

Figure 2. MoU Signing Ceremony in Jakarta



Operating Cost

Average mine, processing and G&A operating costs over the Project life of 40 years are estimated at US\$20.5 per tonne of ore. A breakdown of estimated unit operating costs is summarised in the table below.

Table 2. LOM Average Operating Costs (US\$/t ore)³

Cost Items	LOM
Mining	8.2
Tailings	0.7
Processing	10.1
Port	0.1
Site Wide Infrastructure	0.6
Surface Fleet Cost	0.1
G&A	0.8
Total Operating Costs	20.5

³ Operating cost excludes taxes and royalties

SUB-LEVEL CAVE OPTION

The PFS will include an examination of the technical and economic viability of an initial 4Mtpa Sub-Level Cave (“SLC”) operation focusing on the high-grade upper portion of the TB Copper deposit and will seek to identify the optimal scenario across mining, processing and related infrastructure.

The potential development of a SLC operation will enable Merdeka to significantly reduce upfront pre-production capital investment and achieve earlier production before transitioning to the development of a larger, block cave operation as contemplated in the Scoping Study. A SLC operation will enable early access to higher grade portions of the TB Copper orebody and enable Merdeka to apply the ongoing learnings from the SLC operation and increased orebody knowledge to de-risk and optimise the block cave expansion.

NEXT STEPS

Merdeka has appointed Stantec and DRA as the lead technical consultants for the PFS which is advancing towards completion in 1Q 2023. The PFS will focus on an assessment of the first 20 years of production from the first lift of the block cave and via a potential SLC operation.

The PFS will examine a process module producing copper, with an associated Albion Process™, SX/EW and CIL circuits to produce copper cathode and gold dore. The plant will be a modular design to allow for a capacity increase to match the mining ramp up.

In addition to optimising the Albion Process™, Merdeka is investigating other post copper concentrate processing alternatives, including a smelting option.

The first phase of permitting has commenced for the commencement of development, with the Government of Indonesia Feasibility Study completed and approved in mid-2022. The aim is to complete the environmental permitting by September 2023, with the start of development to commence in early 2024.

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ABOUT PT MERDEKA COPPER GOLD TBK.

PT Merdeka Copper Gold Tbk (IDX: MDKA) (“Merdeka” or the “Company”) is a holding company with operating subsidiaries engaging in mining business activities, encompassing: (i) exploration; (ii) production of gold, silver, copper, nickel (and other related minerals); and (iii) mining services.

The Company’s major assets are the: (i) Tujuh Bukit Copper Project; (ii) Nickel Mining and Refining Assets (Merdeka Battery Materials); (iii) Pani Gold Project; (iv) Wetar / Morowali Acid Iron Metal Project; (v) Tujuh Bukit Gold Mine and; (vi) Wetar Copper Mine.

As a world-class Indonesian mining company, Merdeka is owned by prominent Indonesian shareholders including: PT Provident Capital Indonesia, PT Saratoga Investama Sedaya Tbk and Mr. Garibaldi Thohir. Merdeka’s three major shareholders have exceptional track records in successfully identifying, building and operating multiple publicly listed companies in Indonesia.

Refer to the Annual Statements of Mineral Resources and Ore Reserves on www.merdekacoppergold.com

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APPENDIX: OVERVIEW OF BLOCK CAVE AND SUB-LEVEL CAVE OPERATIONS

Merdeka is building the world-class Tujuh Bukit Copper Project. The Company has appointed leading technical consultants to explore the optimal method to safely and economically develop and mine the ore body.

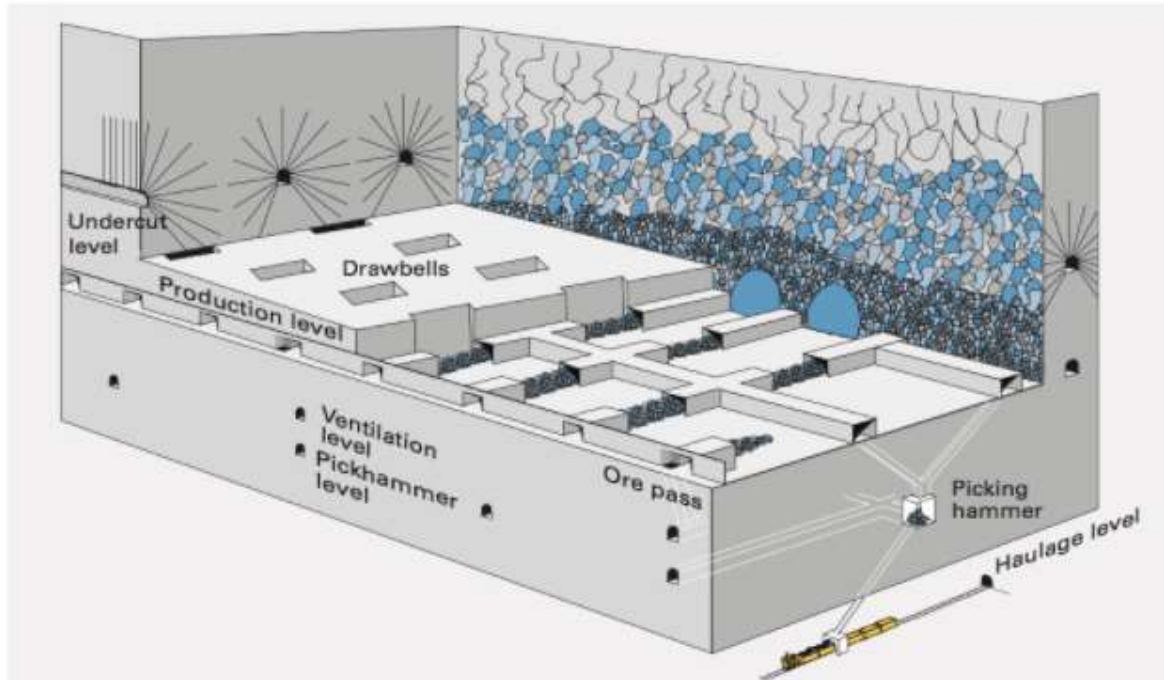
The two options under examination are: block caving and sub-level caving. Both methods applicable to large scale deposits and are regarded as the underground mining methods with the lowest unit operating costs.

BLOCK CAVE OPERATION

Block caving is a well-established, proven, underground mining method for large scale extraction. It is technically complex and requires substantial upfront capital investment. Block caving is regarded as a productive and cost-effective underground mining method (estimated operating costs of US\$6 – 10 per mined tonne (excluding plant operating costs)). Block caving production rates typically range from 30,000 – 120,000 tpd (TB Copper estimated production rate of 60,000 – 70,000 tpd), compared to sub-level cave operations which typically operate at 3,000 – 30,000 tpd (TB Copper indicative production rate of ~11,000 tpd), stope mining at 1,000 – 4,000 tpd and cut and fill at ~500 tpd of production. Block caving is typically deployed to deposits over 500 metres in depth with orebody dimensions of greater than 200 metres in all directions.

As illustrated below, once accesses to a certain depth of the orebody have been achieved the undercut level, production level and service levels are established. The undercut level horizontally cuts the orebody and creates a void to allow for the mine to cave once propagated. Under gravity and in-situ stress effects, the jointed orebody starts to collapse and fall. Through the production level, ore that falls through the drawbells (extending between the production and undercut levels) is collected with load haul dump trucks. The ore is dumped into a system of ore passes, where it will be crushed, loaded onto either a conveyor belt or hoisted and transported to surface for processing.

Figure 3. Illustration of Block Cave Operation⁴



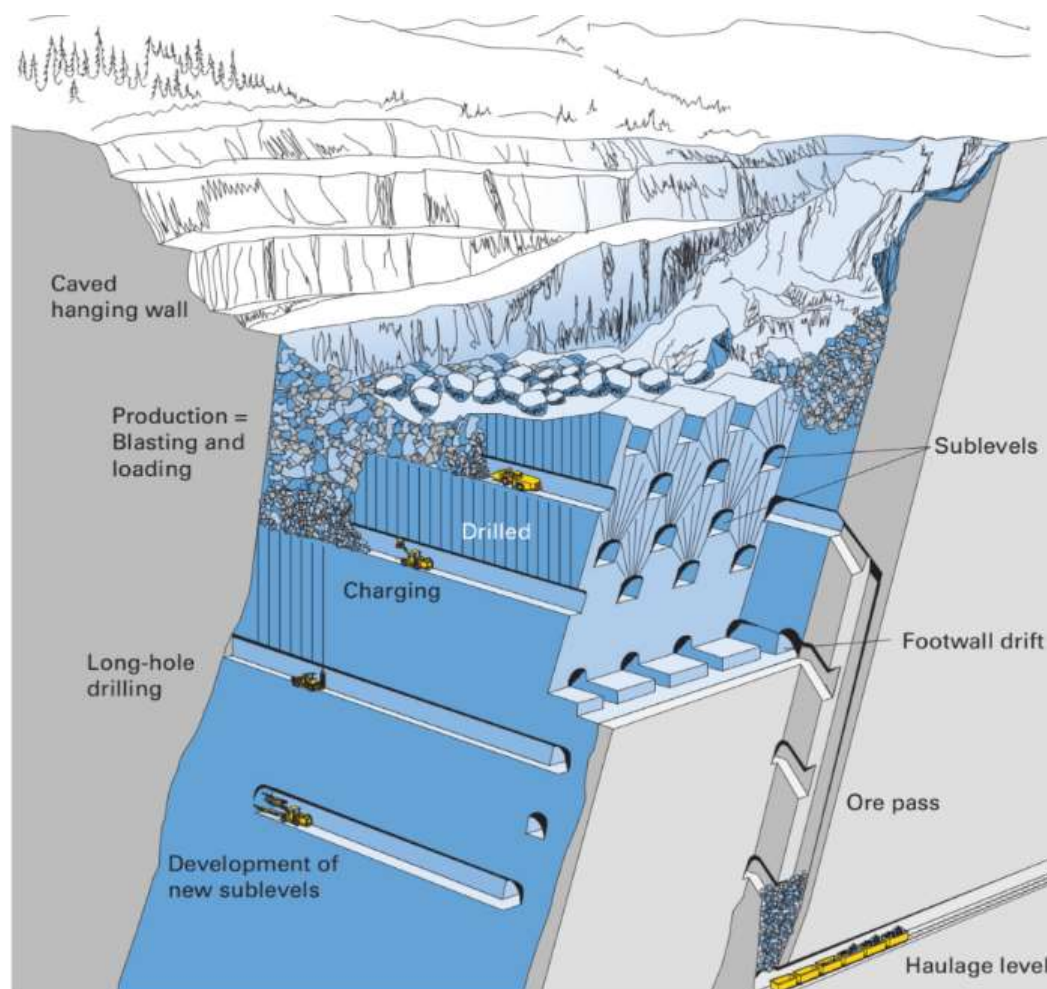
⁴Source: International Journal of Rock Mechanics and Mining Sciences (December 1996)

SUB-LEVEL CAVE OPERATION

In recent decades the application of Sub-Level Cave (SLC) mining has progressed significantly. SLC mining is generally considered to be a lower capital cost and flexible mining alternative to block caving. However, a SLC operation cannot be mined at the same high throughput rates as a block cave operation resulting in a higher cost per tonne mined. SLC mining has been successfully applied in a wide range of geotechnical conditions and tends to be used as a transition mining method before developing a full block cave mine to gain orebody knowledge and reduce financial risk.

SLC mining generally applies to large orebodies with one horizontal dimension smaller, relative to the other two, which is in the range of 50 – 200 metres. This method is a top-down mining sequence (illustrated in the below graphic) with a production rate that varies from 3,000 – 30,000 tpd (TB Copper indicative production rate of ~11,000 tpd). Mining starts with driving a series of ore drifts through the orebody in a regular geometric pattern, with retreating up-blasting holes drilled. Ore drift level spaced ranges from 11 – 24 metres and vertical level spacing ranges between 15 – 30 metres. Once blasted, ore will be mucked using Load Haul Dump trucks, dumped into ore passes and transport to surface using trucks, conveyors or winding systems. Multi top drift blasting on the same or different levels can occur concurrently. Development mining occurs in the lower levels, while the upper levels are drilled and blasted.

Figure 4. Illustration of Sub-Level Caving Operation⁵



⁵ Source: International Journal of Rock Mechanics and Mining Sciences (December 1996)