

20 June 2022

ASX ANNOUNCEMENT

TGME GOLD PROJECT UPDATES

HIGHLIGHTS:

- Front-End Engineering Design (FEED) of the TGME gold plant has been completed, forming an important input towards the finalisation of the Definitive Feasibility Study (DFS) of the TGME underground project.
- The overall DFS is progressing well and it is currently under internal review.
- Senior management change in South Africa.

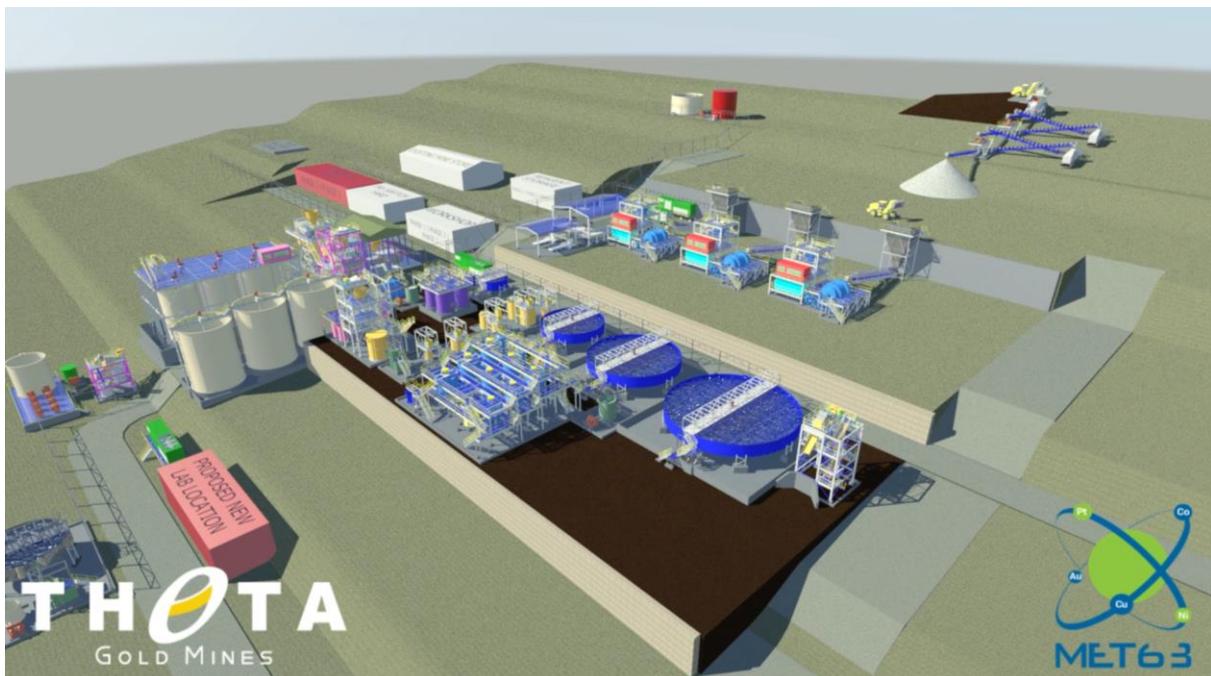


Figure 1: New TGME Plant Layout (ROM/Crush/Grind/Floatation/Oxidisation/CIL/Goldroom/Labs/Offices)

Theta Gold Mines Limited (“Theta Gold” or “Company”) (ASX: TGM| OTC: TGMGF) is pleased to provide an update on the MR 83 gold processing plant. Theta appointed MET63, which specialises in the design and construction of advanced modular processing plants, to

undertake and complete the plant design, based on a thorough metallurgical testwork program, and with multi-tier internal and independent oversight.

Key Features of the Gold Process Plant:

- The new gold process plant is designed to have a milling capacity of 540,000 tons per annum. The plant design consists of two individual processing streams, capable of processing free-milling and sulphide ore separately.
- The new gold processing plant is designed to fit into the current plant footprint which forms part of the Mining Right MR83, therefore no additional environmental permitting will be required.
- The new processing plant components include three-stage crushing, milling, reagent, flotation, CIL, elution, and gold room sections as indicated in figure 1 & 2.
- The gold plant will produce dore gold bars.
- Engineering and costing have been completed to the required level of accuracy for the DFS.
- The completed design includes water and power reticulation with the scope to increase the capacity with modular units for future plant expansions, consistent with the Company's strategy to reach its gold production target of 160koz/p.a within five years.
- The latest proven available automation technologies were incorporated into the gold processing plant design which will reduce labour requirements and enhance productivity levels.
- The tailings disposal will be onto the existing tailings storage facility located some 150m from the plant.
- Some existing plant infrastructures were incorporated into the new gold processing plant.

The overall Definitive Feasibility Study is progressing well and is currently in the QA/QC phase with an expected completion before the end of Q2, 2022. **Chairman Mr. Bill Guy stated** *"DFS is progressing well and the drafts are currently under internal review. The process plant has been designed by MET63, an experienced consulting team from South Africa. The plant is designed to cater for different ore streams as different TGME gold mines will be brought on stream."*

More than 80% of the plant components and raw materials are expected to be sourced locally from South African suppliers. South Africa has numerous mine equipment manufacturers and suppliers. The modular design means easy expansion for future growth and reduces construction time."

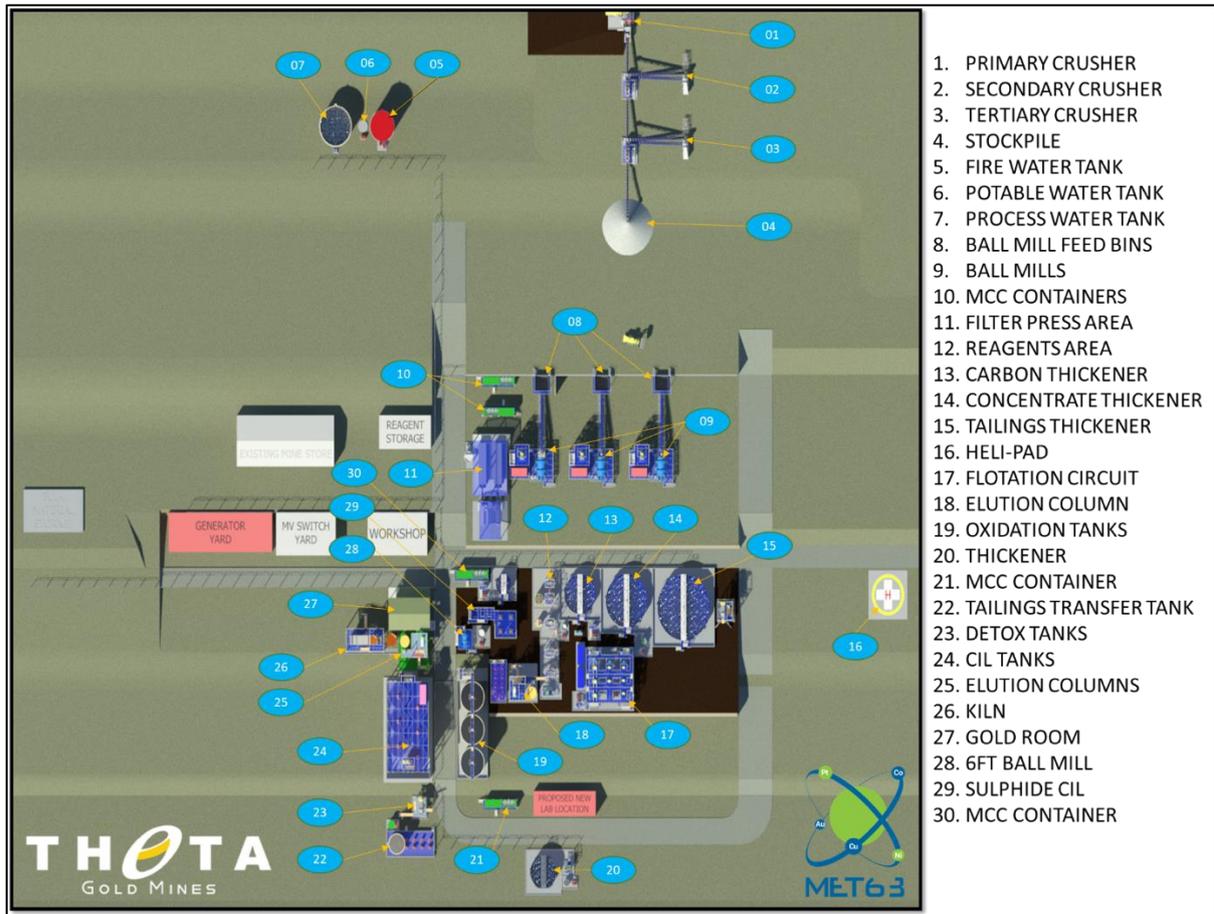


Figure 2: New TGME Plant Layout



Figure 3: Existing Plant Drone View (post demolition of old sections)

Furthermore, the Company's CEO Mr Mitford Mundell is no longer employed with the Company. Site operations, the permitting process and DFS workings continues.

[ENDS]

This announcement was approved for release by Theta Gold Mines Limited's Board.

For more information, please visit www.thetagoldmines.com or contact:

Bill Guy, Chairman

Theta Gold Mines Limited

T: + 61 2 8046 7584 E: billg@thetagoldmines.com

Investor Relations

Australia: Ben Jarvis, Six Degrees Investor Relations: +61 (0) 413 150 448

Webpage: www.thetagoldmines.com



<https://twitter.com/ThetaGoldMines>



<https://www.linkedin.com/company/thetagoldmines/>

ABOUT THETA GOLD MINES LIMITED

Theta Gold Mines Limited (ASX: TGM | OTCQB: TGMGF) is a gold development company that holds a range of prospective gold assets in a world-renowned South African gold mining region. These assets include several surface and near-surface high-grade gold projects which provide cost advantages relative to other gold producers in the region.

Theta Gold's core project is located next to the historical gold mining town of Pilgrim's Rest, in Mpumalanga Province, some 370km northeast of Johannesburg by road or 95km north of Nelspruit (Capital City of Mpumalanga Province). Following small scale production from 2011 – 2015, the Company is currently focussing on the construction of a new gold processing plant within its approved footprint at the TGME plant, and for the processing of the Theta Open Pit oxide gold ore. Nearby surface and underground mines and prospects are expected to be further evaluated in the future.

The Company aims to build a solid production platform to over 160kozpa based primarily around shallow, open-pit or adit-entry shallow underground hard rock mining sources. Theta Gold has access to over 43 historical mines and prospect areas that can be accessed and explored, with over 6.7Moz of historical production recorded.

Theta Gold holds 100% issued capital of its South African subsidiary, Theta Gold SA (Pty) Ltd ("TGSA"). TGSA holds a 74% shareholding in both Transvaal Gold Mining Estates Limited ("TGME") and Sabie Mines (Pty) Ltd ("Sabie Mines"). The balance of shareholding is held by Black Economic Empowerment ("BEE") entities. The South African Mining Charter requires a minimum of 26% meaningful economic participation by the historically disadvantaged South Africans ("HDSAs"). The BEE shareholding in TGME and Sabie Mines is comprised of a

combination of local community trusts, an employee trust and a strategic entrepreneurial partner.

