



30 April 2021

ASX ANNOUNCEMENT

## QUARTERLY REPORT 1 January to 31 March 2021

Theta Gold Mines Limited ("Theta Gold" or "Company") (ASX: TGM | OTCQB: TGMGF) is pleased to report on its activities for the period from 1 January to 31 March 2021.

### HIGHLIGHTS

#### POST QUARTER – April 2021

#### **Pre-Feasibility Study - TGME Phase 1 Underground Project – 74% owned by TGM**

TGME Phase 1 Underground Project, which excludes the open pits, was released to the market on 13 April 2021. All numbers in USD and financials based on forecast gold price of average USD\$1,570/oz and ZAR/USD exchange rate of 15.9. Salient details include:

- **Peak Capex of only USD36m to start mining operations leading on to the recovery of 419Koz Au at a peak rate of 60Koz pa.**
- **Pay-back period from first gold of 13 months**
- **Pay-back period from start of mining of 22 months**
- **419,000 oz Au delivered to plant (is this recovered?) over initial Life of Mine (LoM)**
- **By the third year, recovered production is over 60,000 oz Au/year**
- **LoM of 7.67 years, based on existing Mining Reserves (excludes 3.5 Moz Inferred Resources)**
- **US\$241.2 million EBITDA over LoM**
- **Internal Rate of Return (IRR) 82%**
- **US\$91.2 million Net Present Value (NPV)**
- **US\$905/oz Au all-in sustaining cost (AISC) over LoM, bottom quartile for South African producers**
- **Total LoM Capital Expenditure (CAPEX) US\$79 million includes -**
  - **Peak CAPEX first 3 years US\$37M –for the oxide and backfill plants and for Beta Mine development**
  - **Year 4 US\$27M for sulphide circuit, Frankfort and CDM Mine development**
  - **US\$15M for other capital development costs and sustaining capex during LoM operations**

## **Maiden Underground Mining Reserve**

- **MAIDEN 419,000oz @ 5.49g/t Au Underground Mining Reserve declared**
- **TOTAL 580,000oz @ 3.98g/t Au Global Mining Reserve (Open Pit & Underground)**
- **63 % Conversion factor for Maiden Underground Mining Reserve**
- **3.5Moz of Underground resource (Inferred) remaining for future conversion into Mining Ore Reserve**
- **Global Mineral Resource 6Moz Au includes -**
  - **4.5 Moz Underground (26.3 Mt @ 5.4 g/t Au) (Measured, Indicated, and Inferred)**
    - **969,400 oz (4.87 Mt @ 6.20 g/t Au) (Measured & Indicated)**
  - **1.3 Moz Open pit resources (13.02 Mt @ 3.25 g/t Au) (Indicated & Inferred )**
    - **917 Koz Theta Project (9.6 Mt @ 2.99g/t Au) (Indicated & Inferred; 0-130m depth)**
    - **161 Koz (2.16 Mt @ 2.31 g/t Au at a 0.4 g/t Au cut-off) Probable Ore Reserve estimate (Theta Project Open Pit Ore Reserve)**
  - **Tailings & Rock dumps – 174,000 oz (Indicated & Inferred)**

*(see Annexure A Tables 1, 2, 3, 4, 5 & 6) (See Annexure B Schedule of Mining Tenements)*

## **DURING THE QUARTER - Q3 FY 2021**

- **A\$15 million At-the-Market equity facility arranged with Acuity Capital**
- **A\$4 million Funds Raised to support mine study, permitting and development**
- **Execution Team strengthened**

## **SUMMARY**

The company has progressed strongly during the early part of 2021, delivering key project milestones, funding, the first underground Mining Reserve (refer ASX announcement 8 April 2021) and first underground Prefeasibility Study (refer ASX announcement 13 April 2021). The team has delivered a Maiden Underground Prefeasibility Study (“PFS”) based on only 16% of Theta Gold’s 4.5m oz Au underground gold resource, and incorporates only 3 out of the recorded 43 historical mines across the project area.

The Maiden Underground Mining Reserve is estimated at 419,000 oz gold (2,366 Kt @ 5.49 g/t). In total, the global Mining Reserve is now 580,000 oz gold (4,530 Kt @ 3.98 g/t) *(see Annexure A, Table 1)*. The global Mineral Resource (JORC 2012) remains over 6 Moz (45.5 Mt @ 4.17 g/t Au) *(see Annexure A, Table 2)*.

Theta Gold has demonstrated, through the first phase underground PFS, excellent project economics for what it believes to be only a small portion of the underground resource and will continue to build up its Mining Reserves by progressing Rietfontein and other mines through to PFS level, while concluding detailed designs for the Phase 1 Underground Project.

The Theta mine team now boasts a number of ex-Harmony Gold mining experts. Not only do they strengthen the mine build and execution team, it gives the board great confidence that the men at the coal face share our belief in this large goldfield.

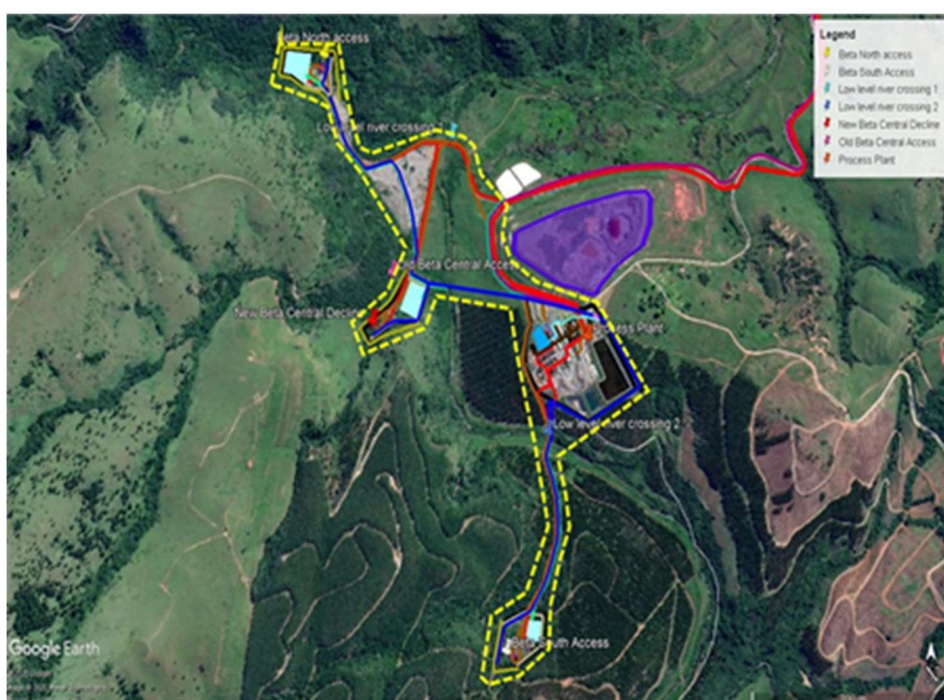
## PRE-FEASIBILITY STUDY – TGME PHASE 1 UNDERGROUND PROJECT

The initial study focused on the easy access of 684,000 oz Au in the Measured and Indicated categories of the TGME underground resource for the Beta, Frankfort and CDM areas. The team achieved a conversion factor of 63% from resource to mining reserve in those areas. A further 3.5m oz Au of Inferred Resource is available to be upgraded to the Measured and Indicated resource category and potentially a portion could be converted into mining reserves.

Table 1 below sets out the Phase 1 UG prefeasibility study results at various gold price scenarios:

**Table 1 : TGME Phase 1 Underground Project**

UG Operations	Unit	Base Case US\$1570/oz	Gold price US\$1500/oz	Gold price US\$1600/oz	Gold price US\$1700/oz	Gold price US\$1800/oz	Gold price US\$2000/oz
NPV @ 5%	USDm	91	81	98	115	132	166
Internal Rate of Return (IRR)	%	82%	75%	88%	100%	111%	134%
Total Oz in Mine Plan	oz	418,845	418,845	418,845	418,845	418,845	418,845
Total Oz Recovered	oz	353,012	353,012	353,012	353,012	353,012	353,012
Average Payback Period (from Start of Mining)	Months	22	23	21	18	17	16
Peak Funding Requirement	USDm	36	36	36	36	36	36
EBITDA over LOM (Undiscounted)	USDm	241	222	254	286	318	382
All-in Sustainable Costs (AISC)	USD/oz	905	900	909	917	926	942
Gold Price	USD/oz	1,570	1,500	1,600	1,700	1,800	2,000
Exchange Rate	ZAR/USD	15.89	15.89	15.89	15.89	15.89	15.89



**Figure 1: Surface Infrastructure TGME Underground Mine Layout**

Previously the company announced a five-year plan, which targets four (4) mine developments, Theta open-pit Starter Project (MR83 only), Theta open pit extension (MR341) and the Rietfontein and Beta underground mines. This 4-mine strategy provided the company with a clear growth plan with a combined Open Pit (“OP”) and Underground (“UG”) resource of over 2.75 Moz. The recent detailed work that was done on Frankfort, Beta and CDM UG mines, together with Theta Phase 1 OP, has further enhanced this strategy.

The TGME Underground PFS indicates that it is likely that the narrow high-grade reefs system can be mined with modern mechanized mining techniques (safer, increased productivity and minimum dilution), and that the gold can be recovered by standard and modern metallurgical technologies (Ultrafine grinding and Intense CIL on certain ores). This proof of concept is part of de-risking the underground projects. The new CEO’s development strategy later this quarter will review how the UG and OP mines will be combined to organically grow the production profile.

## Financial Summary

Financial modelling was completed over a range of gold price environments, using all of forecast prices and constant prices of US\$1,500/oz, US\$1,600/oz, US\$1,700/oz, US\$1,800/oz and US\$2,000/oz. The forecast prices are considered the Base Case as per the completed PFS.

**Table 1 : Key Aspects of UG Operations PFS**

Item	Unit	Base Case US\$1,570/oz	US\$1,500/oz	US\$1,600/oz	US\$1,700/oz	US\$1800/oz	US\$2,000/oz
NPV @ 0%	USDm	122.9	109.0	131.5	153.1	174.7	218.2
NPV @ 2.5%	USDm	105.7	93.7	113.5	132.5	151.5	189.7
<b>NPV @ 5%</b>	<b>USDm</b>	<b>91.2</b>	<b>80.8</b>	<b>98.3</b>	<b>115.1</b>	<b>131.9</b>	<b>165.6</b>
NPV @ 7.5%	USDm	79.0	69.8	85.4	100.3	115.2	145.2
NPV @ 10%	USDm	68.6	60.5	74.4	87.7	101.0	127.8
NPV @ 12.5%	USDm	59.7	52.6	65.0	77.0	88.9	112.8
NPV @ 15%	USDm	52.1	45.7	57.0	67.7	78.4	99.9
Internal Rate of Return (IRR)	%	82%	75%	88%	100%	111%	134%
Total ounces in Mine plan <sup>(2)</sup>	oz	418,845	418,845	418,845	418,845	418,845	418,845
Total Oz Recovered <sup>(2)</sup>	oz	353,012	353,012	353,012	353,012	353,012	353,012
Average ounces recovered per month	oz	4,253	4,253	4,253	4,253	4,253	4,253
Average Grade to Plant	g/t	5.51	5.51	5.51	5.51	5.51	5.51
Benefit-Cost Ratio/Money on Investment <sub>5.0</sub>	Ratio	5.8	5.4	6.2	6.9	7.7	9.3
Capital Gain <sub>5.0</sub>	%	483%	438%	516%	593%	671%	827%
Average Payback Period (from Start of Mining)	Month	22	23	21	18	17	16
Average Payback Period (from First Gold)	Month	13	14	12	9	8	7
Total Capital <sup>(2)</sup>	USDm	79	79	79	79	79	79

Item	Unit	Base Case US\$1,570/oz	US\$1,500/oz	US\$1,600/oz	US\$1,700/oz	US\$1800/oz	US\$2,000/oz
Peak Funding Requirement <sup>(2)</sup>	USDm	36	36	36	36	36	36
Peak Funding Month	Month	23	23	23	23	23	23
Revenue over LoM (Undiscounted)	USDm	545	524	559	594	629	699
EBITDA over LOM (Undiscounted)	USDm	241	222	254	286	318	382
Net Cash Flow over LoM (Undiscounted)	USDm	123	109	131	153	175	218
Break-even Milled Grade (Excluding Capex)	g/t	3.1	3.2	3.0	2.9	2.7	2.5
Break-even Milled Grade (Including Capex)	g/t	3.9	4.0	3.8	3.6	3.4	3.1
Break-even Gold Price (Excluding Capex)	USD/oz	866	861	870	879	887	903
Break-even Gold Price (Including Capex)	USD/oz	1,089	1,083	1,092	1,101	1,109	1,125
Gold Price	USD/oz	1,570	1,500	1,600	1,700	1,800	2,000
Exchange Rate <sup>(1)</sup>	ZAR/USD	15.89	15.89	15.89	15.89	15.89	15.89

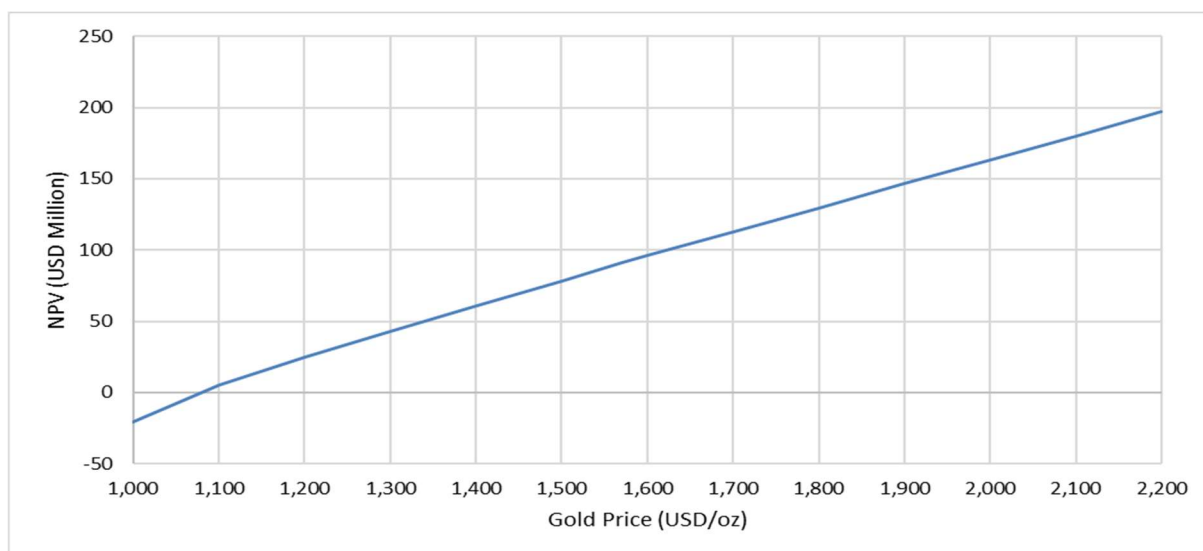
**Note:**

- Money On Investment (MOI) calculated as present value of income flow over present value of investment (5% discount rate); calculated in USD terms.
- EBITDA = Earnings before interest, tax, depreciation and amortisation (excludes Capital)

**Notes:**

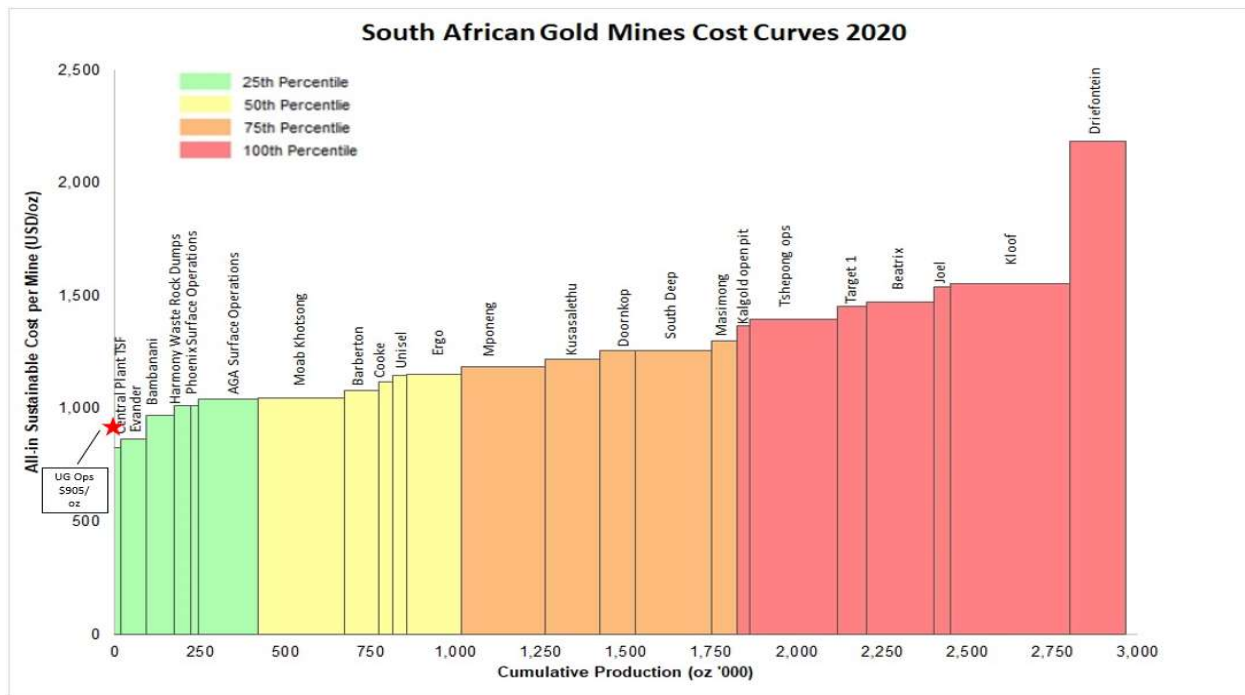
1. All values converted from ZAR to USD at relevant exchange rate
2. Capital costs in PFS Study were converted from ZAR

The project also demonstrates a robust NPV across a wide range of gold prices as can be seen in the graph below.



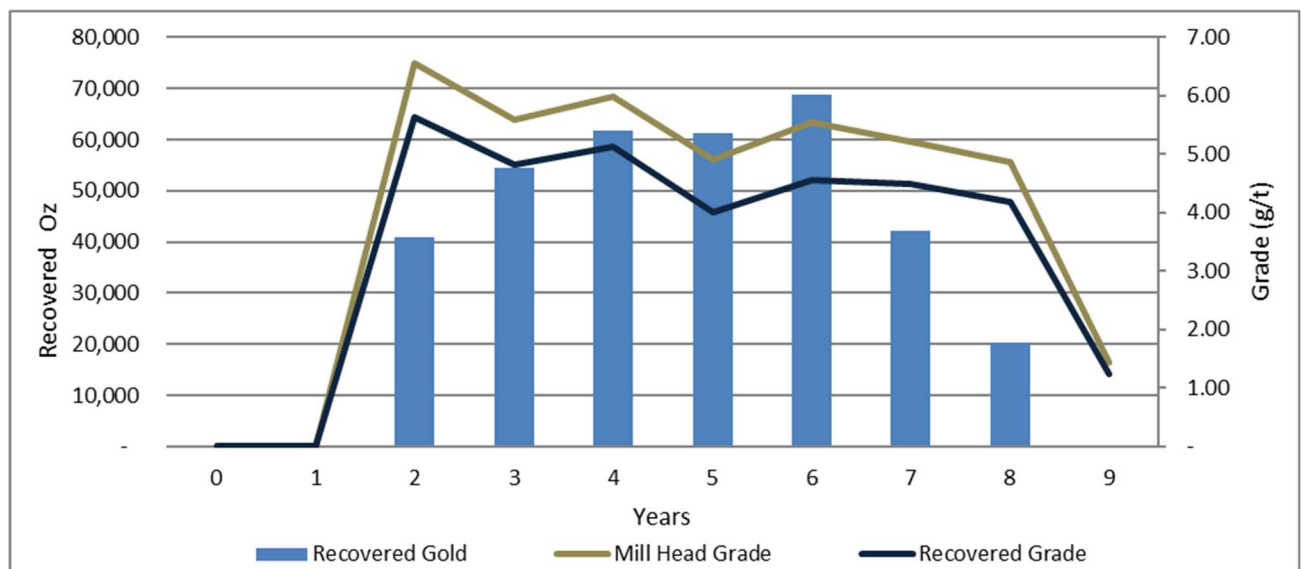
**Figure 2 : NPV Sensitivity to Gold Price**

The AISC costs for the UG PFS continue to reflect a project that is at the bottom quartile when compared to South African peer mines.



**Figure 3 : South African Miners AISC Costs 2019: Minxcon 2020**

By the third year of production, over 60,000oz per year of gold is being recovered as demonstrated in the graph below. Years 7 and 8 is only a reflection of the limitation of excluding current inferred resources. Plant capacity will be filled by either current inferred resources or from the large stockpiles of old surface dumps, which will have a significant upside to this base case.



**Figure 4 : Annual TGME Underground Project Gold Production (oz)**

## Capital Costs

In order to draft a capital cost estimation for the three underground operations various quotations and pricing were sourced. Where new quotations could not be sourced, older quotations and projects of a similar size and nature were used to benchmark costs. These costs were escalated to align with the current financial year. The final capital estimation is dated February 2021.

The capital estimations are based on items that fall within the capital footprint of the Project. The capital footprint is defined by the battery limits for the engineering and infrastructure design within three main areas. These areas include:-

- Beta underground operation and associated surface facilities;
- Frankfort underground operation and associated surface facilities;
- CDM underground operation and associated surface facilities; and

Bill of quantities ("BoQs") were drafted for these areas on which costing has been done. Where BoQs for work breakdown structure items are not applicable, batch costing has been done per unit volume.

The main capital cost drivers for the underground operations include the establishment of the underground conveyor systems, mining and ancillary fleet not leased and the establishment of the surface mine sites at each of the operations.

The capital costs have all been developed in ZAR and then converted to USD at the exchange rate relative to the model forecast. The average exchange rate over the LoM is 15.89 ZAR/USD, while the total capital requirement is USD78.5m. The peak funding requirement is USD36m, with the remaining capital funded from cashflow. Total capital is detailed in the table below.

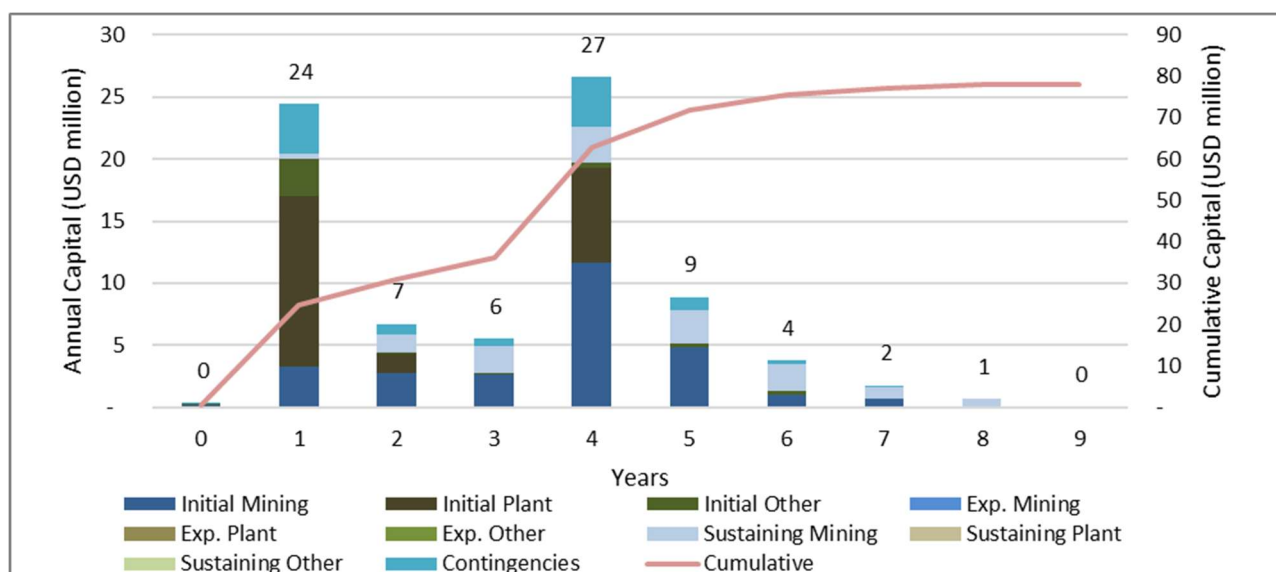
**Table 2 : UG PFS Capital Summary**

Description	TGME UG Project
	USDm
<b>Mining Capital</b>	
Total Direct Mining Capital	27.1
Stay in Business Mining Capital	13.7
Mining Capital Contingency	5.4
<b>Total Mining Capital</b>	<b>46.2</b>
<b>Plant Capital</b>	
Total Direct Plant Capital	22.6
Stay in Business Plant Capital	0.0
Plant Capital Contingency	4.5
<b>Total Plant Capital</b>	<b>27.1</b>
<b>Other Capital</b>	
Total Other Non-Direct Capital	4.2
Stay in Business Other Capital	0.0
Other Capital Contingency	0.8
<b>Total Other Capital</b>	<b>5.1</b>
<b>Total Capital</b>	
<b>Total Direct Capital</b>	<b>54.0</b>
<b>Total SIB Capital</b>	<b>13.7</b>
<b>Total Capital Contingencies</b>	<b>10.8</b>
<b>Total Capital</b>	<b>78.5</b>

Notes:

- ZAR/USD exchange rate of 15.89 used for conversion.

The capital schedule over the life of the project is illustrated below and reflects the appropriate exchange rate as per the forecast period over the LoM.



**Figure 5 : Monthly Capital Schedule (USD)**

#### Notes

- **Capital in Year 1:-**
  - Oxide Plant Circuit 30 ktpm
  - Paste Backfill Plant
  - Beta Infrastructure
- **Capital in Year 2 and Year 3:-**
  - Mostly Beta Infrastructure and Tail-end of Plant Capital
- **Capital in Year 4:-**
  - CDM and Frankfort Infrastructure
  - Sulphide Plant Circuit 15ktpm
- **Capital Post Year 5:-**
  - Mostly CDM and Frankfort Infrastructure

## Economics Analysis

Minxcon performed an independent economic analysis on the Project's Mineral Resources to determine the economic viability of the Project to declare Ore Reserves. The Base Case utilises the price and exchange rate forecasts based on the median of various banks, brokers and analysts, converted to real terms and based on a forecast in January 2021. The long-term gold price was calculated as the average between the maximum and minimum real-term gold price over the past ten years. Minxcon also completed a gold price sensitivity at the request of TGM to demonstrate results at various price environments. The price scenarios considered are constant prices of US\$1,500/oz, US\$1,600/oz, US\$1,700/oz, US\$1,800/oz and US\$2,000/oz.

The table below illustrates the forecasts for the first five years as well as the long-term forecast used in the financial model.

**Table 3 : Macro-economic Forecasts & Commodity Prices Used in Base Case**

Item	Unit	2021	2022	2023	2024	2025	Long-term
Gold Price (Real)	USD/oz	1,892	1,786	1,587	1,502	1,469	1,600
Exchange Rate (Real)	ZARUSD	15.39	15.57	15.93	16.00	16.00	16.00

Source: Median of various Banks and Broker forecasts (Minxcon), IMF.

The NPV is derived from post-royalties and tax, pre-debt real cash flows, after taking into account operating costs, capital expenditures for the mining operations and the processing plant and using forecast macro-economic parameters. The DCF evaluation was set up in months, but also subsequently converted to calendar years ending December. The annual ZAR cash flow was converted to USD using the relevant exchange rates as per the forecast.

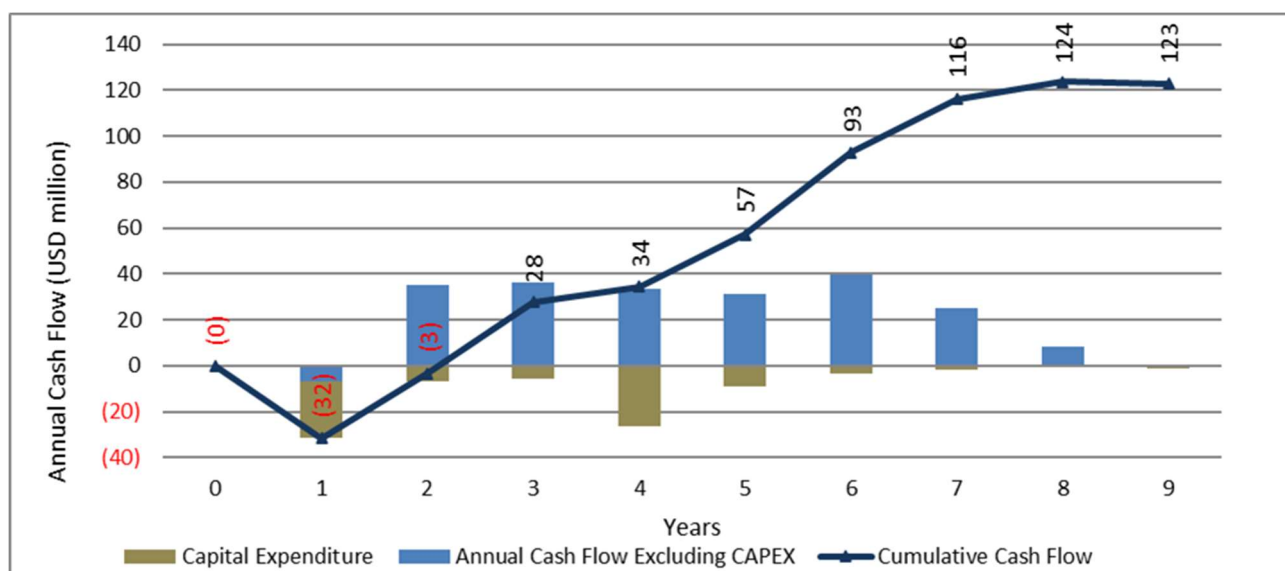
The mine plan includes predominantly Probable Mineral Reserve. No Inferred Mineral Resources have been included in the economic analysis.

The Project NPVs are shown in Table 5 below and reflect a financially robust project.

**Table 4 : NPVs at Various Discount Rates (Real Terms)**

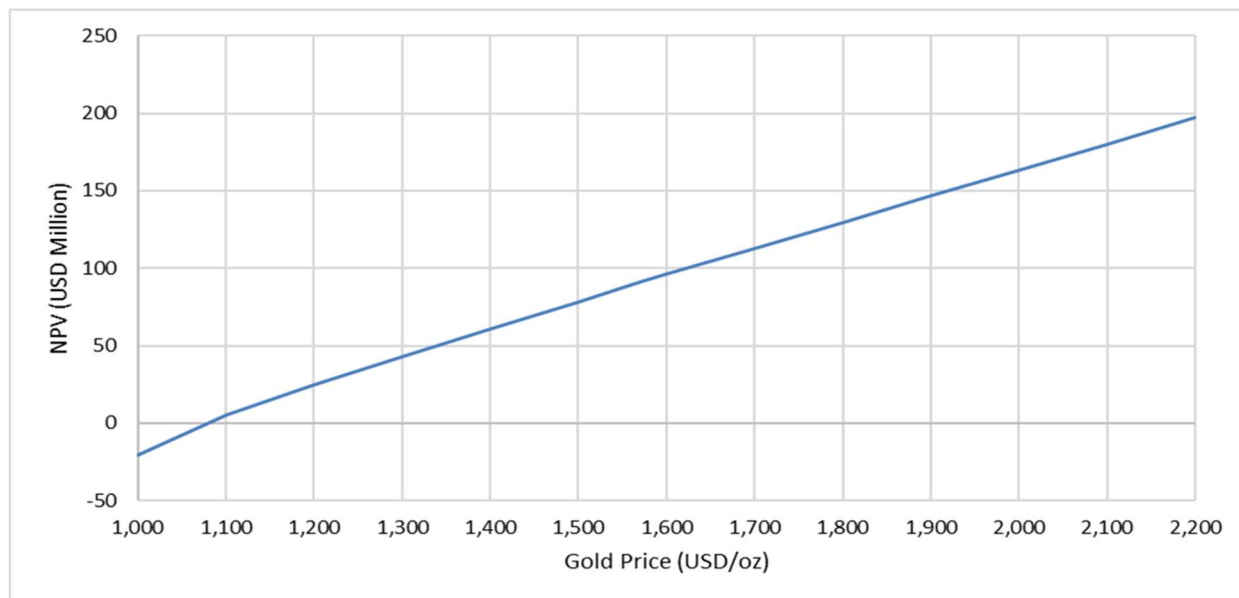
Item	Unit	Base Case US\$1,570/oz	US\$1,500/oz	US\$1,600/oz	US\$1,700/oz	US\$1,800/oz	US\$2,000/oz
NPV @ 0%	USDm	122.9	109.0	131.5	153.1	174.7	218.2
NPV @ 2.5%	USDm	105.7	93.7	113.5	132.5	151.5	189.7
<b>NPV @ 5%</b>	<b>USDm</b>	<b>91.2</b>	<b>80.8</b>	<b>98.3</b>	<b>115.1</b>	<b>131.9</b>	<b>165.6</b>
NPV @ 7.5%	USDm	79.0	69.8	85.4	100.3	115.2	145.2
NPV @ 10%	USDm	68.6	60.5	74.4	87.7	101.0	127.8
NPV @ 12.5%	USDm	59.7	52.6	65.0	77.0	88.9	112.8
NPV @ 15%	USDm	52.1	45.7	57.0	67.7	78.4	99.9
Internal Rate of Return (IRR)	%	82%	75%	88%	100%	111%	134%

The monthly and annual cumulative cash flow along with the cumulative cash flow over the life of mine for the Base Case Scenario is shown in the figures below in USD terms. The underground operations have a peak funding requirement of US\$36.1 million and a payback period from start of mining is 22 months. The payback period from first gold production is 13 months.



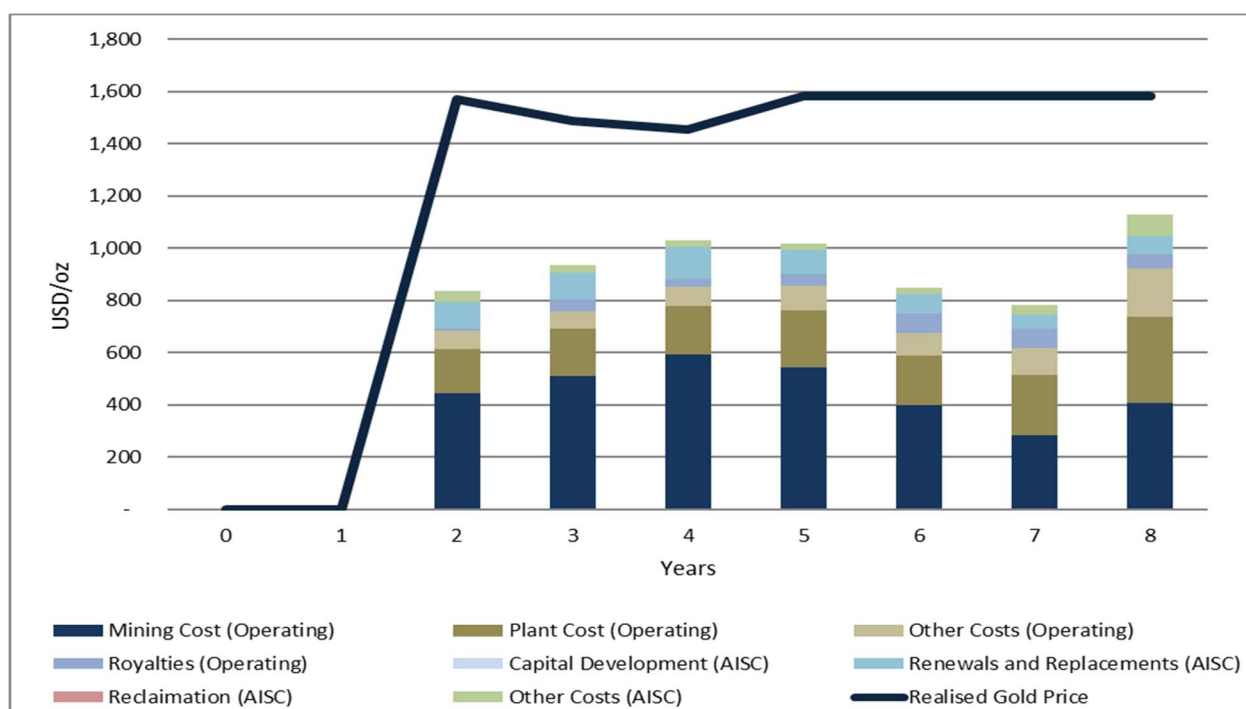
**Figure 6 : Annual Cumulative Cash Flow USD (Undiscounted) TGM Underground Project Base Case**

Minxcon performed single-parameter sensitivity analyses based on the real cash flow to ascertain the impact on the NPV. For the DCF, the commodity prices, exchange rate and grade have the most significant impact on the sensitivity of the project followed by the mining and plant operating cost. The project is least sensitive to capital and non-direct costs.



**Figure 7 : NPV Sensitivity to Gold Price at Base Case**

The PFS has an AISC cost below the forecast gold price from start of production as illustrated in the graph below.



**Figure 8 : ASIC cost on Yearly Basis TGME Underground Project**

The table below reflects the operating data for the project.

**Table 5 : Production Data**

Description	unit	Base Case
Waste Tonnes Mined	kt	1,221
Ore Tonnes Mined	kt	2,366
Total Tonnes Mined	kt	3,587
Average Mined Grade	g/t	5.51
Total Oz in Mine Plan	oz	418,845
Gold Recovered	oz	353,012
Average ounces recovered per month	oz	4,253
Average ounces recovered per annum	oz	51,038
Grade Delivered to Plant	g/t	5.51
Recovered grade	g/t	4.64
Yield/Recovery	%	84%
All in Sustaining Costs ("AISC" base case)	USD per oz	905
All in Costs ("AIC" base case) <sup>1</sup>	USD per oz	1,089
Life of Mine	Months	92
Life of Project (Processing)	Months	83

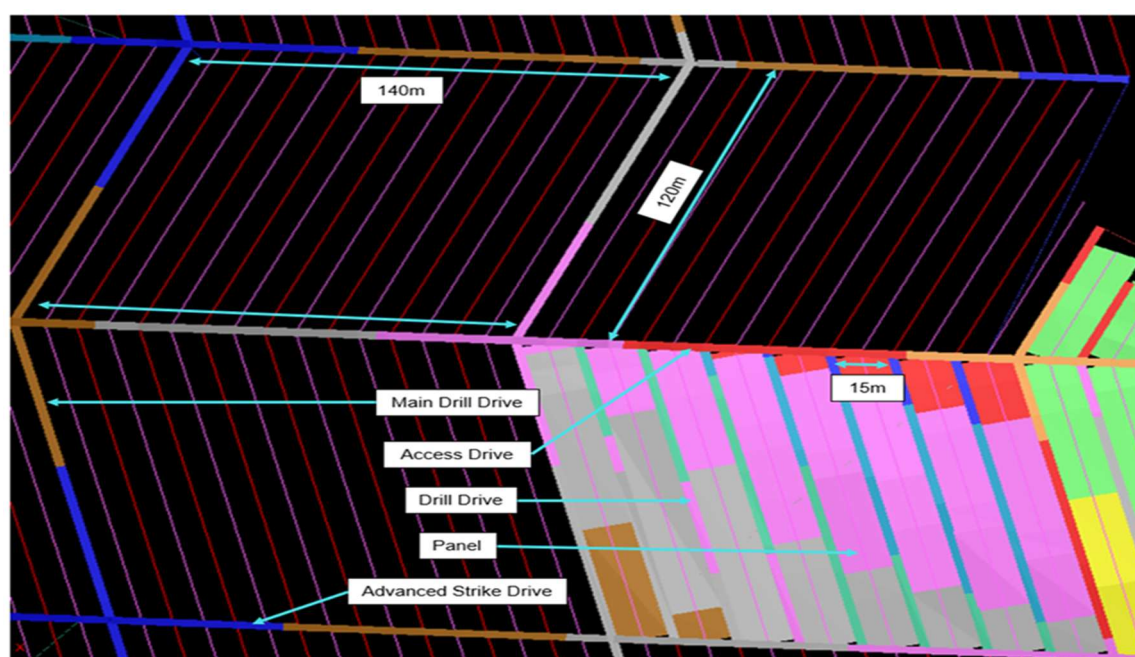
**Notes:**

1. AISC + non-sustaining capital expenditure.

## Mining Method

Long hole drilling as applied to flat dipping, narrow vein orebodies, will be utilised for stoping. The method has successfully been applied at mines like Sibanye-Stillwater and Anglo Platinum. Long-hole drilling is seen as a continuous operation allowing blocks to be pre-drilled and blasting to take place as and when required (Figure 9).

Step 1 in the mining cycle is to pre-develop the mining grid. The mining grid consist of two drilling drives on each side of the intended pillar to be mined. The drilling drives are blasted from the cleaning roadway/advanced strike drive and connected to the next advanced strike drive. This grid development will be done by a development drill rig with a planned daily advance of 3m.

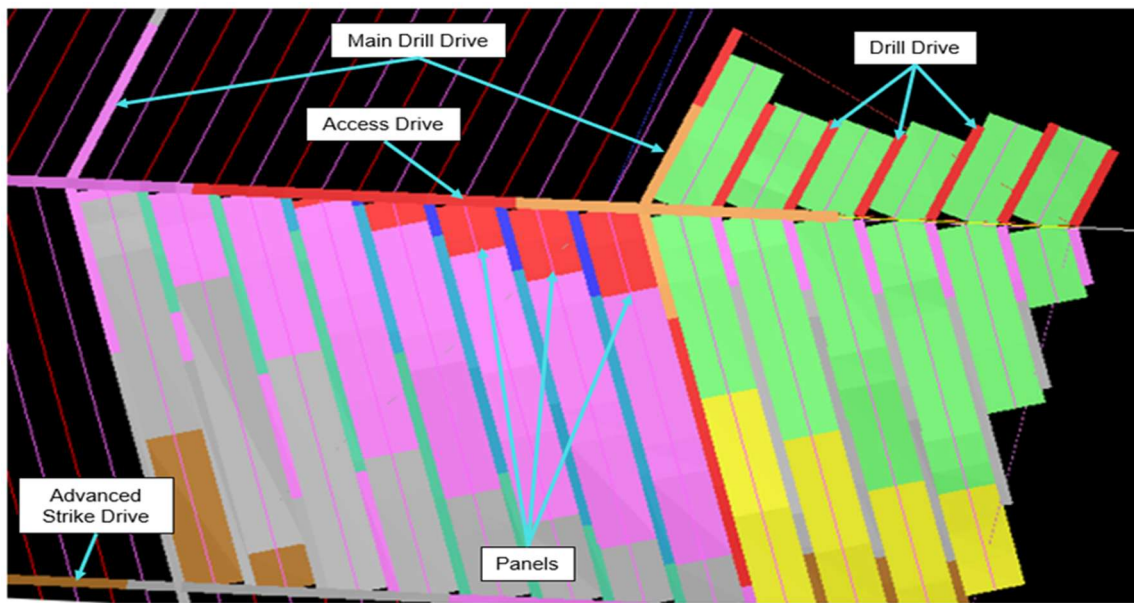


**Figure 9 : Underground Development Design**

Step 2 in the mining cycle, once the mining grid has been pre-developed, 15m long blast holes are drilled with a long hole drill rig from the drill drive down-dip of the mining pillar and holed into the up-dip drill drive. A single operator drills 120–150 meters in a 12-hour shift (Figure 11).

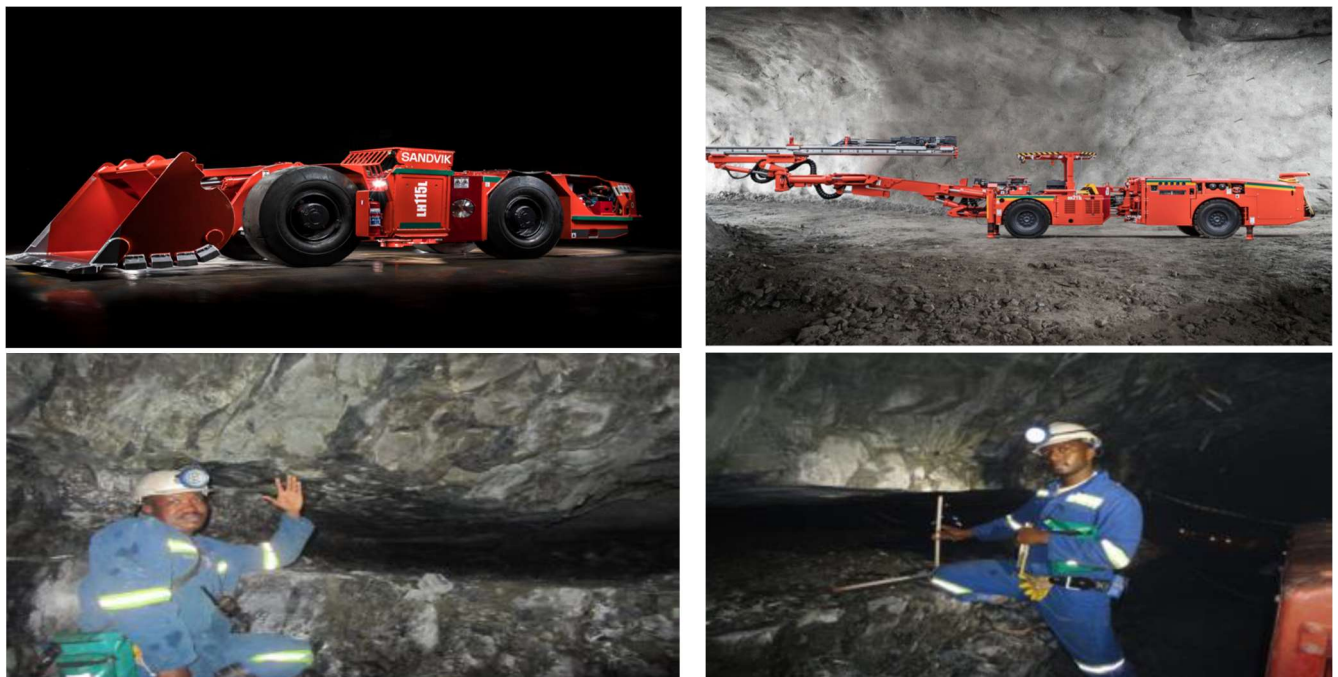
Five holes are blasted at a time, advancing 3m. Stope cleaning is done by waterjet or low profile scrapers. Personnel are not required to enter the stoping area as all work is done from the safety of the well supported drives.

LHDs load and transport the ore from drives to underground belts, from where it goes to surface.



**Figure 10 : Example of Long Hole Stopping Layout**

The method allows for ultra-narrow stoping widths, with drastic reduction in waste dilution. The lowest widths planned is 60cm, although the method proved capable under 50cm.



**Figure 11 : Long Hole Narrow Reef Stopping**

## Operating Costs

The mining operating cost estimations were completed utilising the Minxcon first-principles activity-based cost model. The cost model utilises the mine and engineering design criteria as well as production schedule inputs to derive cost rates for the mining and engineering activities.

The underground mining costs for labour, equipment, consumables, services and utilities have been sourced from quotations, actual industry stores costs, industry rates and utility rates. Where costs could not be obtained from these sources, benchmarking with similar-sized projects and operations was conducted and historical costs escalated.

A ZAR/USD exchange rate of 15.89 as of 1 February 2021 has been used to convert costs to USD terms for reference purposes.

**Table 7 : Operating Costs USD/t milled**

Item	Base Case US\$1,570/oz	US\$1,500/oz	US\$1,600/oz	US\$1,700/oz	US\$1,800/oz	US\$2,000/oz
<b>Net Turnover</b>	<b>232</b>	<b>223</b>	<b>238</b>	<b>253</b>	<b>268</b>	<b>297</b>
Mine Cost	72	72	72	72	72	72
Processing Costs	31	31	31	31	31	31
On-Site Other Costs	14	14	14	14	14	14
Royalties	7	6	8	9	10	12
<b>Operating Costs</b>	<b>124</b>	<b>123</b>	<b>124</b>	<b>126</b>	<b>127</b>	<b>129</b>
SIB Capex	6	6	6	6	6	6
Reclamation	0	0	0	0	0	0
Off-Mine Overheads	5	5	5	5	5	5
<b>All-in Sustaining Costs (AISC)</b>	<b>135</b>	<b>134</b>	<b>136</b>	<b>137</b>	<b>138</b>	<b>141</b>
Non-Sustaining Capital	27	27	27	27	27	27
<b>All-in Costs (AIC)</b>	<b>162</b>	<b>162</b>	<b>163</b>	<b>164</b>	<b>166</b>	<b>168</b>
<b>All-in Cost Margin</b>	<b>30%</b>	<b>28%</b>	<b>31%</b>	<b>35%</b>	<b>38%</b>	<b>44%</b>
EBITDA	103	95	108	122	135	163
EBITDA Margin	44%	42%	45%	48%	51%	55%
Gold in Mine Plan	418,845	418,845	418,845	418,845	418,845	418,845
Gold Recovered	353,012	353,012	353,012	353,012	353,012	353,012

**Table 8 : Operating Costs USD/oz recovered**

Item	Base Case US\$1,570/oz	US\$1,500/oz	US\$1,600/oz	US\$1,700/oz	US\$1,800/oz	US\$2,000/oz
<b>Net Turnover</b>	<b>1,555</b>	<b>1,495</b>	<b>1,594</b>	<b>1,694</b>	<b>1,794</b>	<b>1,993</b>
Mine Cost	484	484	484	484	484	484
Processing Costs	206	206	206	206	206	206
On-Site Other Costs	92	92	93	94	94	96
Royalties	48	43	51	59	66	81
<b>Operating Costs</b>	<b>830</b>	<b>825</b>	<b>834</b>	<b>843</b>	<b>851</b>	<b>867</b>
SIB Capex	39	39	39	39	39	39
Reclamation	0	0	0	0	0	0
Off-Mine Overheads	36	36	36	36	36	36
<b>All-in Sustaining Costs (AISC)</b>	<b>905</b>	<b>900</b>	<b>909</b>	<b>917</b>	<b>926</b>	<b>942</b>
Non-Sustaining Capital	184	184	184	184	184	184

Item	Base Case US\$1,570/oz	US\$1,500/oz	US\$1,600/oz	US\$1,700/oz	US\$1,800/oz	US\$2,000/oz
All-in Costs (AIC)	1,089	1,083	1,092	1,101	1,109	1,125
All-in Cost Margin	30%	28%	31%	35%	38%	44%
EBITDA	688	634	724	815	907	1,090
EBITDA Margin	44%	42%	45%	48%	51%	55%
Gold in Mine Plan	418,845	418,845	418,845	418,845	418,845	418,845
Gold Recovered	353,012	353,012	353,012	353,012	353,012	353,012

## Environmental Authorisations

Underground mining is less impactful on the environment than open pit mining. Although the Phase 1 UG mines are already authorised in most aspects, an amended mine works programme will be submitted, and associated environmental approvals will be obtained.

The company has assembled a highly competent team to deal with all “licence to operate” aspects, who is pro-actively project managing the various approval aspects associated with the growing number of mine development projects.

Mineral Resources and Energy Minister, Honorable Gwede Mantashe, recently expressed renewed commitment to enhance the Government processes to expedite approval processes in the South African mining industry. The department is working closely with the Minerals Council on these aspects. The President of South Africa has also announced mining to be a key component of post-Covid economic recovery and job creation. The Company is therefore confident that all approvals will be obtained.

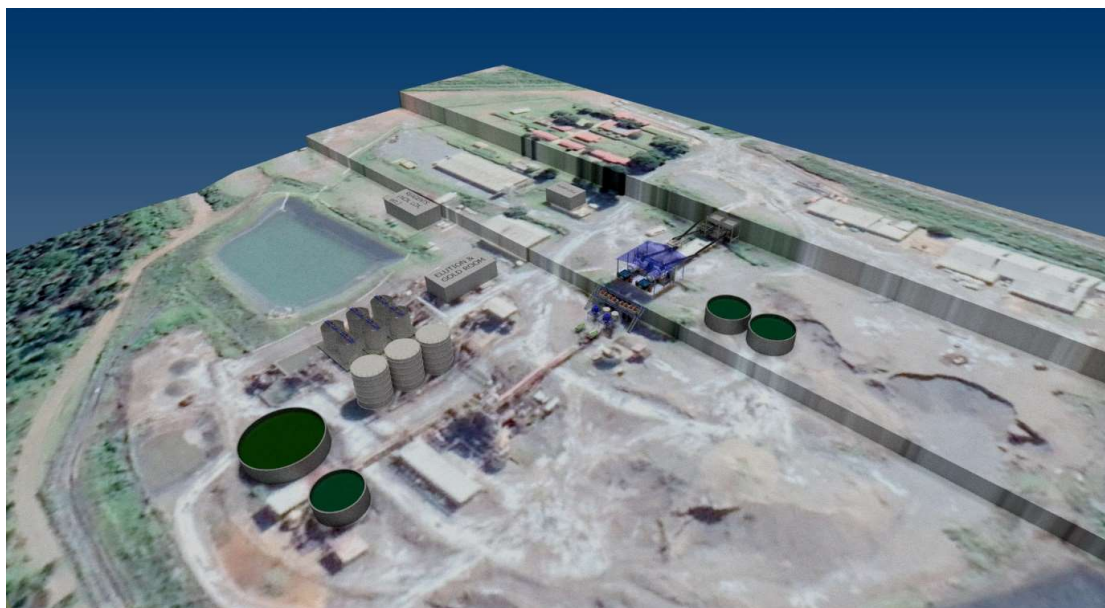
The company is committed to “zero harm” and will add significant value to the communities and the environment. Informal mining and unsustainable land use practices have caused environmental damage in the area, and TGME will work with the community and authorities to improve it as part of its ESG commitments. The local communities are highly supportive of the Company’s projects.

## Metallurgy

The UG-Plant will be able to accommodate a variety of ore sources, incorporating different streams that require different treatment solutions, while sharing front-end (crushing) and back-end (CIL, elution, gold room, tailings) infrastructure. It will also be further expandable with modular additions, and the CIL section will also be shared with the 50kt/m Theta Open Pit plant (oxide ore plant). All ore, apart from that from Frankfort and CDM, is expected to follow a standard CIL process. Frankfort ore is more complex as it contains preg robbers and sulphide minerals which will require a different processing methodology.

The existing Process Plant will be upgraded and refurbished to treat ore from Beta. The process will follow a conventional Carbon-in-Leach (“CIL”) configuration at a rate up to 30 ktpm.

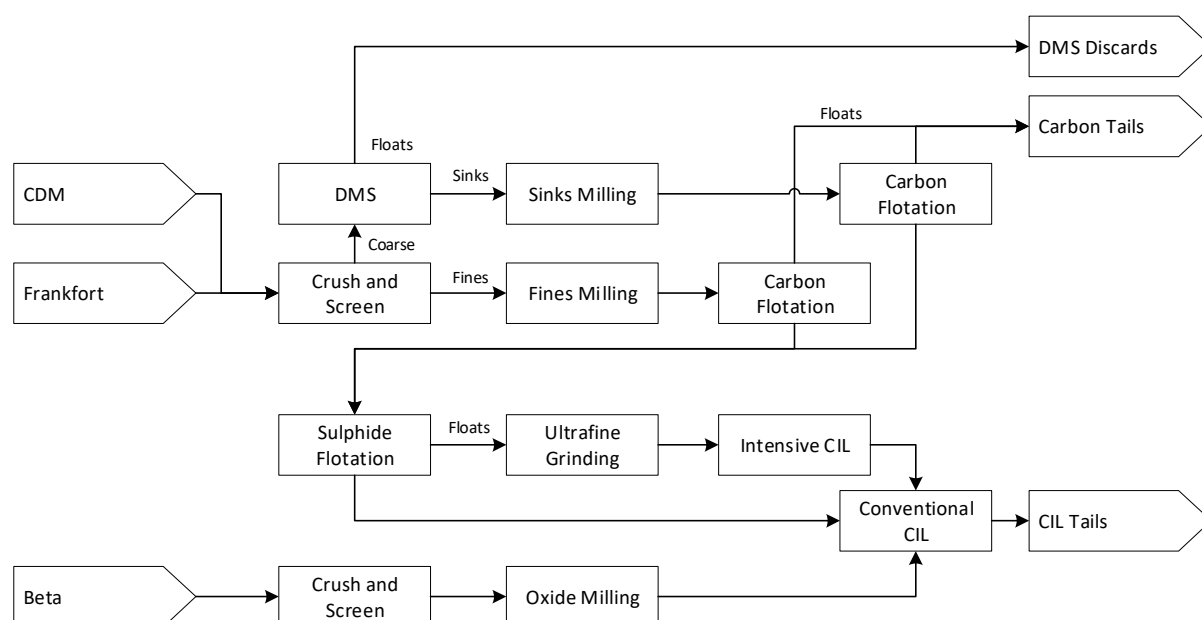
**Figure 10: 3D view of refurbished Process Plant superimposed on current Plant footprint**



Source: MET63

Frankfort ore is expected to be concentrated via Dense Media Separation (“DMS”) at the shaft and only the concentrate will be trucked to the Process Plant. The DMS should process up to 15 000tpm, and the discards will be stockpiled at the shaft. The DMS concentrate will be processed with a specialized circuit that will remove the carbonaceous preg-robbars and ultrafine grinding of the sulphide minerals (Figure 13). The ore from CDM mines will also follow the same process route as Frankfort ore.

**Figure 13: Block Flow Diagram for Beta, Frankfort and CDM ore**



Re-commissioning of the existing tailings facility is planned for the first phase, while for subsequent phases the CIL Tailings will be pumped into the mined-out workings of the Beta mine adjacent to the Process Plant as backfill.

Potential upgrading of mined ore from Beta and CDM via XRT or DMS is under investigation and not factored in. This, however, could potentially further increase gold production.

Detailed metallurgical testwork has been concluded for the more complex Frankfort ore, confirming the above solution. Initial testwork on Beta ore indicates a simpler design, where e.g. carbon floatation will be excluded from the stream. More detailed studies will be conducted to refine the design. The planned average recovery rate of 84% is based on the testwork to date (refer ASX announcement 13 April 2021).

A highly competent team of experts (inhouse capacity and consultants) are working on the plant solutions, and assurance checks have been put in place. The company will employ reputable EPCM partners for detailed design and construction of the project, with track records of successful project delivery.

## Ore Reserve

The Ore Reserve statement from the announcement on 8 April 2021 is presented below. The Ore Reserve calculation considered Mineral Resources in the Indicated category as the Theta Project does not contain any Measured Mineral Resources (Table 9). The graph below (Figure 14) illustrates the effect of the modifying factors on the diluted scheduled tonnes for the Theta Project.

The TGME Underground Project is close to the central processing plant (TGME Gold Plant Footprint) and Starter Theta Open-pit Project. Mineral Resource inventory sits adjacent to the TGME Gold Plant Footprint. Approximately 95% of the Global Mining Reserve (580,000 oz @ 3.98 g/t) sits within 3 km of the TGME Gold Plant Footprint.

**Table 9: Ore Reserves**

Operation	Grade	Tonnes	Au Content	
	g/t	kt	kg	koz
Beta	6.51	1,662	10,822	347.94
Frankfort	4.13	319	1,317	42.33
CDM	2.31	385	889	28.58
Open Pit (MR83)	2.74	2,164	4,996	160.61
<b>Total</b>	<b>3.98</b>	<b>4,530</b>	<b>18,023</b>	<b>579.46</b>

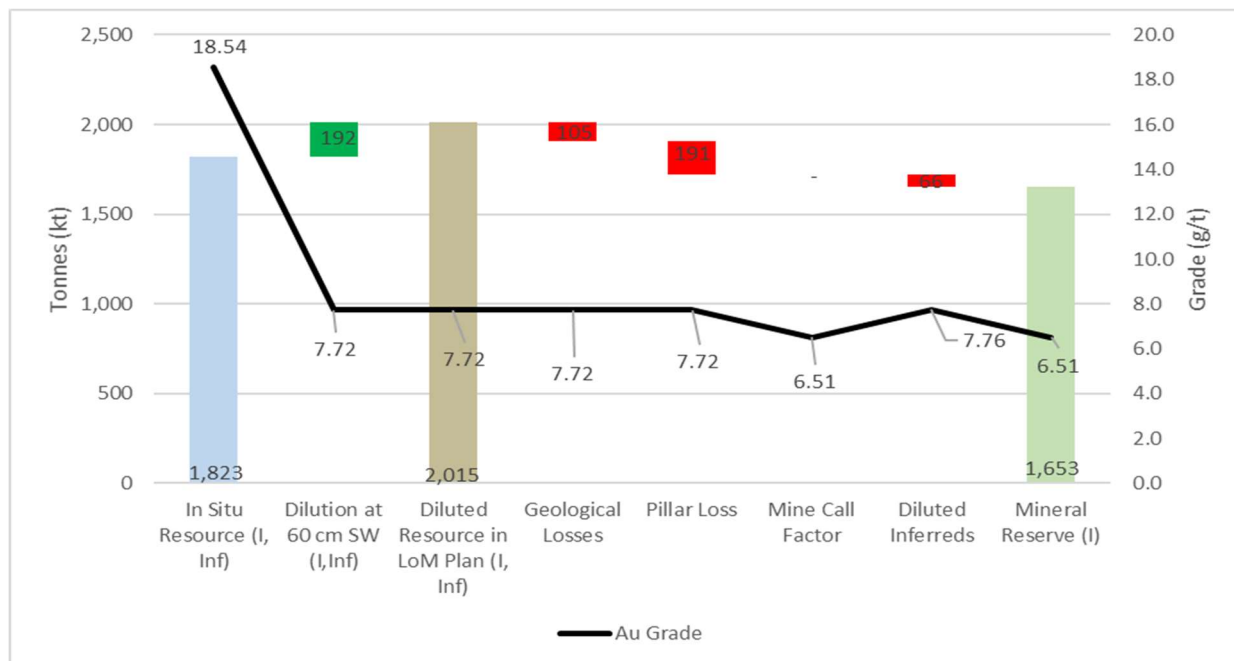
Notes:

1. An Ore Reserve cut-off of 170 cm.g/t has been applied for Beta
2. An Ore Reserve cut-off of 150 cm.g/t has been applied for Frankfort
3. An Ore Reserve cut-off of 121 cm.g/t has been applied for CDM
4. An Ore Reserve cut – off of 0.4 g/t was applied. For the open pit.
5. A gold price of USD 1,465 / oz and exchange rate of 16 ZAR / USD was used for the cut-off calculation for Beta, Frankfort and CDM
6. A gold price of USD 1,300 / oz was used for the cut - off calculation for the open pit operation
7. Ore Reserves are reported as total Ore Reserves and are not attributed.

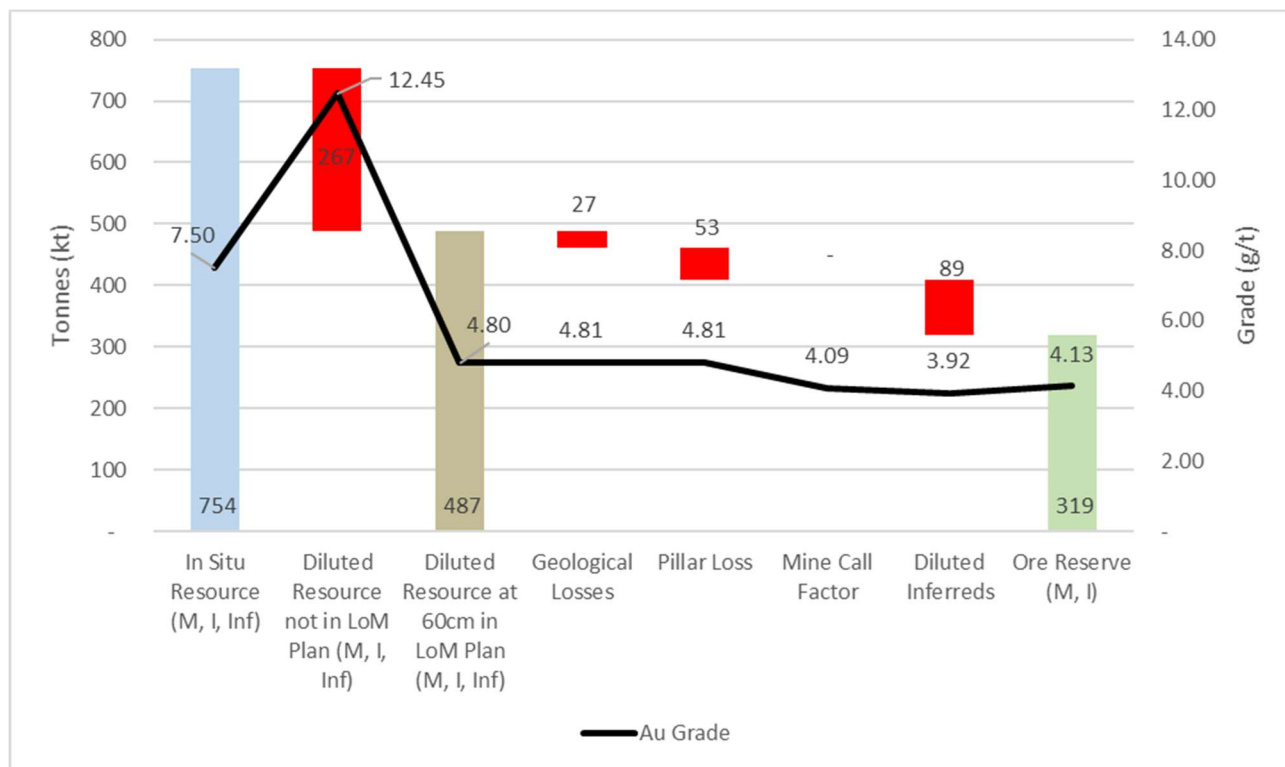
The Mineral Resource to Ore Reserve conversion requires application of appropriate factors which would account for any changes to the Mineral Resources in the life of mine plan as a result

of mining the ore. As part of the technical studies the potential ore loss and dilution to the Mineral Resources was determined and applied to the resources available for conversion to Ore Reserves. The ore loss reduces the tonnage and content, while the dilution would add additional tonnage with no gold content. Note ore reserve included previously undiscovered reefs (Bevetts and Shale Reef).

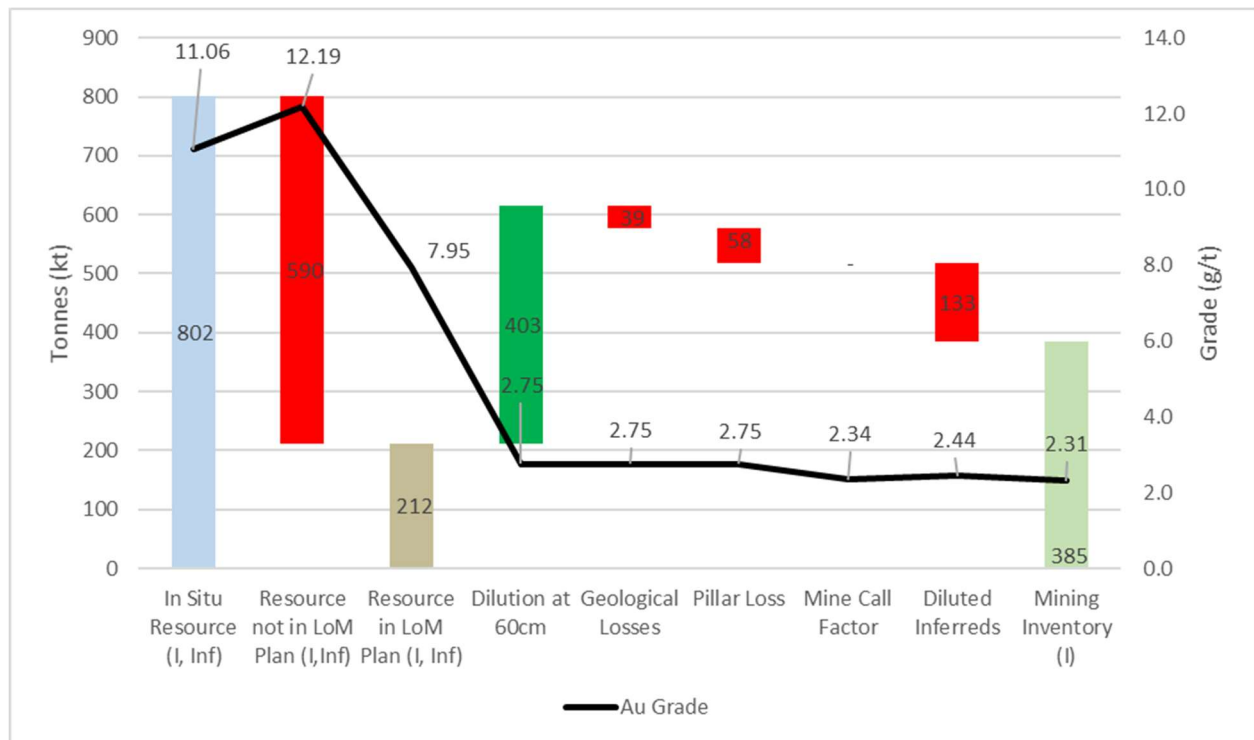
**Figure 14: Resources to Ore Reserves Beta Mine**



**Figure 15 : Mineral Resources to Ore Reserves Frankfort Mine**



**Figure 16: Mineral Resource to Ore Reserve CDM Mine**



## Study Inputs and Deviations

The Pre-Feasibility Study for Initial Underground Projects is based on the following key input parameters:-

- The Mineral Resources were estimated and compiled by Minxcon (Johannesburg);
- The Project mine plan and detailed monthly mining and processing schedule, derived from primarily Indicated Mineral Resources was produced by Minxcon after the application of mining parameters, mining and processing costs from in-country contractors, processing inputs and geotechnical design considerations.
- A small portion of Inferred Mineral Resources was included in the LoM plan since it is unavoidable to exclude it. This Inferred Mineral Resource was excluded from the Ore Reserves and economic analysis.
- Maiden Probable Reserve has been stated by Minxcon after excluding the Inferred Mineral Resources and confirming the economic viability.
- Geotechnical inputs and parameters for underground mine designs by Mr. Mark Grave, independent rock engineer;
- Process engineering design, capital and operating costs by MET63 South Africa (Pty) Ltd (Johannesburg) and Minxcon;
- Metallurgical recovery inputs based on test work by Maelgwyn South Africa and interpreted by MET63 South Africa (Pty) Ltd.
- Tailings storage facility design, capital and operating costs by Taillex Management Services (Pty) Ltd ("Taillex") and Minxcon.

## MAIDEN UNDERGROUND MINING RESERVE SUMMARY

The Maiden Underground Mining Reserve of 419koz (see *Annexure A, Tables 3,4 & 5*) is a result of a Prefeasibility Study for Beta, Frankfort and CDM mines. All mines are in the Central Northern area and collectively will be referred to as TGME Underground Project. The initial study focused on the easily accessible gold in TGME underground areas for 684 Koz Underground Indicated Resources (see *Annexure 1*). The Indicated Resource converted at a ratio of 63%. Theta Gold still has 3.5 Moz of underground Inferred Resources available for conversion into Measured and Indicated Resources, a portion of which could potentially be converted to mining reserve in the future subject to further technical studies.

Over the past 6 months, Theta Gold has focused on a strategy to convert part of a very large underground Mineral Resource into a Mine Reserve. This maiden underground mining reserve highlights the Company's potential to deliver reserve conversions from its existing extensive resource base in a cost-effective manner.

The Theta Open-pit Ore Reserves has only included 83MR, a granted Mining Right, and has reduced from the previously stated 205 Koz to 161 Koz. This is as a result of the impact of additional studies when combining open-pit and underground operations. The new CEO's development strategy later this quarter will address economic impacts of delays in open pit permitting by moving the open-pit resources into later mine schedule.

## SCHEDULE OF MINING TENEMENTS

In accordance with Listing Rule 5.3.3,

- a) a schedule of mining tenements held at the end of the quarter is attached as Annexure B;
- b) the Company advises that there were no farm-in or farm-out agreements entered into during the quarter.

## CORPORATE

### Cash Position and Funding

As at 31 March 2021, the Group had US\$1,209,000 in cash.

During the quarter, the Company issued a total of 15,027,819 fully paid ordinary shares at \$0.275 per share, 11,391,455 shares pursuant to a share placement to sophisticated and professional investors to raise \$3,132,650 before costs, and 3,636,364 shares on full conversion of a \$1,000,000 cash advance.

The issue of 3,636,364 fully paid ordinary shares at \$0.275 per share is in full settlement of the \$1,000,000 short term loan advanced by a shareholder between December 2020 and January 2021 (refer Appendix 5B Quarterly Cashflow Report dated 29 January 2021).

## **A\$15 Million At-the-Market Facility**

As announced on 25 March 2021, the Company entered into an At-The-Market Subscription Deed (“ATM”) with Acuity Capital. The ATM provides the Company with up to A\$15 million of standby equity capital with the expiry of the ATM being 31 July 2023.

There are no requirements on the Company to utilise the ATM and the Company may terminate the ATM at any time, without cost or penalty. Acuity Capital and the ATM do not place any restrictions at any time on the Company raising capital through other methods.

As security for the ATM, the Company has issued 24 million Theta Gold shares to be held by Acuity Capital.

## **Investment in Bullion Asset Management**

On 20 January 2021, the Company announced that it was taking an equity investment in Bullion Asset Management Services Pte Ltd (“BAM”), a Singapore-based technology company focused on financing, tokenization of physical gold bullion and precious metals trading.

BAM is a Singapore registered company co-founded by Decentralised Capital Pte Ltd, a related entity of Aura Group, and backed by Jaggards Trading Pty Ltd, Australia’s oldest bullion and rare coin merchant, and DigitalX Ltd (ASX: DCC), an ASX listed technology and digital asset management company.

Under the agreement, the Company had agreed to invest up to A\$2,100,000 in shares in BAM by the issue of Theta Gold shares as consideration. The investment in BAM comprised an initial subscription of A\$700,000 worth of BAM shares which was settled on 29 January 2021 by the issue of 2,087,682 Theta Gold shares at \$0.335 per share. Following the initial subscription, Theta Gold had the option to subscribe for a further A\$1,400,000 worth of BAM shares in two equal tranches. The option has lapsed.

## **Strengthening of Execution Team**

The group’s South African mine build and execution team was boosted during the quarter with the appointment of Freddy Mockett, (Mine Manager) and Jan Bronkhorst (Project Portfolio Manager). Both executives previously worked for Harmony Gold (NYSE: HMY / JSE: HAR).

Following these appointments, the group now has a highly competent owners team (CEO, COO, Mine Manager, Project Portfolio Manager, Consulting Metallurgist and Consulting Engineer), together with various external specialists.

## **Capital Structure**

The following are movements in the capital structure since the end of the previous quarter and up to the date of this report –

- a) 2,087,682 fully paid ordinary shares were issued at A\$0.335 each as consideration for the investment in BAM set out above;
- b) 11,391,455 fully paid ordinary shares were issued at \$0.275 per share pursuant to a share placement raising \$3,132,650,

- c) 3,636,364 fully paid ordinary shares were issued on full conversion of a \$1,000,000 cash advance;
- d) 24,000,000 fully paid ordinary shares were issued as security pursuant to the At-The-Market facility set out above;
- e) 2,300,000 fully paid ordinary were issued pursuant to the exercise of performance rights;
- f) 2,300,000 unlisted incentive options expiring 31 December 2022 and 31 December 2025 were issued to employees of the group.

The current capital structure of the Company is as follows –

	Number
Fully paid ordinary shares (ASX: TGM   OTCQB: TGMGF)	503,245,666
Unlisted options and performance rights (Refer Annexure C)	34,118,353

This announcement was authorised for release by the Board of Directors.

For more information, please visit [www.thetagoldmines.com](http://www.thetagoldmines.com) or contact:

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**Theta Gold Mines Limited**

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

**Competent Persons Statement**

**Mineral Resources and Ore Reserves**

The information in this report relating to mineral resources and ore reserves is based on, and fairly reflects, the information and supporting documentation compiled by Mr Uwe Engelmann (BSc (Zoo. & Bot.), BSc Hons (Geol.), Pr.Sci.Nat. No. 400058/08, MGSSA), a director of Minxcon (Pty) Ltd and a member of the South African Council for Natural Scientific Professions and Mr Daniel van Heerden (B.Eng (Mining M.Com (Business Management), member of Engineering Council of South Africa (Pr.Eng. Reg. No. 20050318)), a director of Minxcon (Pty) Ltd and a fellow of the South African Institute of Mining and Metallurgy (FSAIMM Reg. No. 37309).

The original reports titled “Theta Gold Increases Mineral Resource to over 6Moz” dated 16 May 2019, “Optimised Mine Schedule for Theta Open Pit Starter Project Delivers Significant Improvements” dated 20 April 2020 and “Initial Maiden Underground Mining Reserve 419,000 oz Gold” dated 8 April 2021 were released to the Australian Securities Exchange (ASX) on those dates. The Company confirms that:

- it is not aware of any new information or data that materially affects the information included in the ASX announcements; and
- all material assumptions and technical parameters underpinning the estimates in the ASX announcements continue to apply and have not materially changed.

## ABOUT THETA GOLD MINES LIMITED

Theta Gold Mines Limited (ASX: TGM | OTCQB: TGMGF) is a gold mining 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 being evaluated.

The Company aims to build a solid production platform to over 160 kozpa based primarily around shallow, open-cut or adit-entry 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 BEE shareholding in TGME and Sabie Mines is comprised of a combination of local community trusts, an employee trust and a strategic entrepreneurial partner.



## DISCLAIMER

This announcement has been prepared by and issued by Theta Gold Mines Limited to assist in informing interested parties about the Company and should not be considered as an offer or invitation to subscribe for or purchase any securities in the Company or as an inducement to make an offer or invitation with respect to those securities. No agreement to subscribe for securities in the Company will be entered into on the basis of this announcement.

This announcement may contain forward looking statements. Whilst Theta Gold has no reason to believe that any such statements and projections are either false, misleading or incorrect, it does not warrant or guarantee such statements. Nothing contained in this announcement constitutes investment, legal, tax or other advice. This overview of Theta Gold does not purport to be all inclusive or to contain all information which its recipients may require in order to make an informed assessment of the Company's prospects. Before making an investment decision, you should consult your professional adviser, and perform your own analysis prior to making any investment decision. To the maximum extent permitted by law, the Company makes no representation and gives no assurance, guarantee or warranty, express or implied, as to, and take no responsibility and assume no liability for, the authenticity, validity, accuracy, suitability or completeness of, or any errors in or omissions, from any information, statement or opinion contained in this announcement. This announcement contains information, ideas and analysis which are proprietary to Theta Gold.

## FORWARD LOOKING AND CAUTIONARY STATEMENTS

This announcement may refer to the intention of Theta Gold regarding estimates or future events which could be considered forward looking statements. Forward looking statements are typically preceded by words such as "Forecast", "Planned", "Expected", "Intends", "Potential", "Conceptual", "Believes", "Anticipates", "Predicted", "Estimated" or similar expressions. Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, and may be influenced by such factors as funding availability, market-related forces (commodity prices, exchange rates, stock market indices and the like) and political or economic events (including government or community issues, global or systemic events). Forward looking statements are provided as a general reflection of the intention of the Company as at the date of release of the document, however are subject to change without notice, and at any time. Future events are subject to risks and uncertainties, and as such results, performance and achievements may in fact differ from those referred to in this announcement. Mining, by its nature, and related activities including mineral exploration, are subject to a large number of variables and risks, many of which cannot be adequately addressed, or be expected to be assessed, in this document. Work contained within or referenced in this report may contain incorrect statements, errors, miscalculations, omissions and other mistakes. For this reason, any conclusions, inferences, judgments, opinions, recommendations or other interpretations either contained in this announcement, or referencing this announcement, cannot be relied upon. There can be no assurance that future results or events will be consistent with any such opinions, forecasts or estimates. The Company believes it has a reasonable basis for making the forward looking statements contained in this document, with respect to any production targets, resource statements or financial estimates, however further work to define Mineral Resources or Reserves, technical studies including feasibilities, and related investigations are required prior to commencement of mining. No liability is accepted for any loss, cost or damage suffered or incurred by the reliance on the sufficiency or completeness of the information, opinions or beliefs contained in this announcement.

The Feasibility Study referred to in this announcement is based on technical and economic assessments to support the estimation of Ore Reserves. There is no assurance that the intended development referred to will proceed as described, and will rely on access to future funding to implement. Theta Gold believes it has reasonable grounds the results of the Feasibility Study. At this stage there is no guarantee that funding will be available, and investors are to be aware of any potential dilution of existing issued capital. The production targets and forward looking statements referred to are based on information available to the Company at the time of release, and should not be solely relied upon by investors when making investment decisions. Theta Gold cautions that mining and exploration are high risk, and subject to change based on new information or interpretation, commodity prices or foreign exchange rates. Actual results may differ materially from the results or production targets contained in this release. Further evaluation is required prior to a decision to conduct mining being made. The estimated Mineral Resources quoted in this release have been prepared by Competent Persons as required under the JORC Code (2012). Material assumptions and other important information are contained in this release.

## Annexure A

### Mineral Resource and Mining Reserves

**Table 6: Combined Underground and Open Pit Ore Reserves as at 1 February 2021**

Operation	Grade	Tonnes	Au Content	
	g/t	kt	kg	koz
Beta	6.51	1,662	10,822	347.94
Frankfort	4.13	319	1,317	42.33
CDM	2.31	385	889	28.58
Open Pit (MR83)	2.74	2,164	4,996	160.61
<b>Total</b>	<b>3.98</b>	<b>4,530</b>	<b>18,023</b>	<b>579.46</b>

**Notes:**

- The information pertaining to the Ore Reserve estimation is detailed in the notes of the Ore Reserve tabulation for the individual operations.

**Table 7: Combined Mineral Resource as at 1 February 2021**

Resource Classification	Type of Operation	Combined Mineral Resource			
		Tonnage	Gold Grade	Gold Content	
		Mt	g/t	Kg	koz
Measured	Underground	0.091	5.37	489	15.7
	Open pit				
	Tailings				
<b>Total Measured</b>		<b>0.091</b>	<b>5.37</b>	<b>489</b>	<b>15.7</b>
Indicated	Underground	4.774	6.21	29 661	953.7
	Open Pit	8.109	2.14	17 364	558.2
	Tailings	5.244	0.83	4 373	140.6
<b>Total Indicated</b>		<b>18.128</b>	<b>2.84</b>	<b>51 398</b>	<b>1652.5</b>
Inferred	Underground	21.452	5.22	111 880	3597.0
	Open pit	4.907	5.11	25 057	805.6
	Tailings	0.023	0.57	13	0.4
	Rock Dump	0.885	1.20	1 059	34.0
<b>Total Inferred</b>		<b>27.267</b>	<b>5.06</b>	<b>138 009</b>	<b>4 437.0</b>
<b>Grand Total</b>		<b>45.485</b>	<b>4.17</b>	<b>189 896</b>	<b>6 105.2</b>

**Notes:**

- Columns may not add up due to rounding.
- Gold price used for the cut-off calculations is USD1,500/oz.
- UG Mineral Resources are reported at a cut-off of 160 cm.g/t, open pit at 0.5 g/t and 0.35 g/t, tailings and rock dumps at 0.35 g/t.
- Fault losses of 5% for Measured and Indicated, 10% for Inferred Mineral Resources.
- Mineral Resources are stated as inclusive of Ore Reserves.
- Mineral Resources are reported as total Mineral Resources and are not attributed.

**Table 8: Beta Underground Ore Reserve as at 1 February 2021**

Ore Reserve Category	Grade	Tonnes	Au Content	
	g/t	kt	kg	koz
Probable	6.51	1,662	10,822	347.94
<b>Total</b>	<b>6.51</b>	<b>1,662</b>	<b>10,822</b>	<b>347.94</b>

**Notes:**

- An Ore Reserve cut-off of 170 cm.g/t has been applied.
- A gold price of USD 1,465 / oz and exchange rate of 16 ZAR / USD was used for the cut-off calculation.
- Ore Reserves are reported as total Mineral Reserves and are not attributed.

Table 9: Frankfort Underground Ore Reserve as at 1 February 2021

Ore Reserve Category	Grade	Tonnes	Au Content	
	g/t	kt	kg	koz
Proved	4.24	60	254	8.16
Probable	4.11	259	1,063	34.16
<b>Total</b>	<b>4.13</b>	<b>319</b>	<b>1,317</b>	<b>42.33</b>

**Notes:**

1. An Ore Reserve cut-off of 150 cm.g/t has been applied.
2. A gold price of USD 1,465 / oz and exchange rate of 16 ZAR / USD was used for the cut-off calculation.
3. Ore Reserves are reported as total Ore Reserves and are not attributed.

Table 10: CDM Underground Ore Reserve as at 1 February 2021

Ore Reserve Category	Grade	Tonnes	Au Content	
	g/t	kt	kg	koz
Probable	2.31	385	889	28.58
<b>Total</b>	<b>2.31</b>	<b>385</b>	<b>889</b>	<b>28.58</b>

**Notes:**

8. An Ore Reserve cut-off of 121 cm.g/t has been applied.
9. A gold price of USD 1,465 / oz and exchange rate of 16 ZAR / USD was used for the cut-off calculation.
10. Ore Reserves are reported as total Ore Reserves and are not attributed.

Table 11: Ore Reserves for the Open pit Operations as at 1 February 2021

Ore Reserve Category in LoM Plan	Pit	Grade	Reef Tonnes	Au Content	
		g/t	kt	kg	koz
Probable	Browns Hill	2.61	279	728	23
Probable	Iota	2.43	1,490	3,628	117
Probable	Theta Hill	1.62	395	640	21
<b>Total</b>		<b>2.31</b>	<b>2,164</b>	<b>4,996</b>	<b>161</b>

**Notes:**

1. An Ore Reserve cut - off of 0.4 g/t was applied.
2. A gold price of USD 1,300 / oz was used for the cut - off calculation.
3. Ore Reserves are reported as total Ore Reserves and are not attributed.

Table 7: Total Theta Project - Mineral Resources, 1 February 2021

Resource Classification	Open Pit Mine	Reef	Reef Grade	Reef Width	Content	Reef Tonnes	Au Content	
			g/t	cm	cmgt	Mt	Kg	koz
Indicated	Theta & Browns Hill	Shale	1.02	200	204	0.397	404	13.0
	Theta & Browns Hill	Bevett's	1.08	223	241	0.856	925	29.7
	Theta & Browns Hill	Upper Theta	2.41	100	241	0.651	1 571	50.5
	Theta & Browns Hill	Lower Theta	3.79	100	379	0.839	3 178	102.2
	Theta & Browns Hill	Beta	2.51	100	251	0.373	938	30.1
	Columbia Hill	Bevett's	2.98	114	340	0.108	323	10.4
	Columbia Hill	Upper Rho	2.33	402	937	0.897	2 090	67.2
	Columbia Hill	Lower Rho	2.51	520	1306	0.981	2 464	79.2
	Columbia Hill	Upper Theta	1.06	114	121	0.163	173	5.6
<b>Total Indicated</b>			<b>2.29</b>	<b>258</b>	<b>591</b>	<b>5.267</b>	<b>12 066</b>	<b>387.9</b>

Resource Classification	Open Pit Mine	Reef	Reef Grade	Reef Width	Content	Reef Tonnes	Au Content	
			g/t	cm	cmgt	Mt	Kg	koz
Inferred	Theta & Browns Hill	Shale	1.12	215	240	0.600	668	21.5
	Theta & Browns Hill	Bevett's	1.17	217	254	0.451	528	17.0
	Theta & Browns Hill	Upper Theta	1.86	100	186	0.948	1 762	56.6

	Theta & Browns Hill	Lower Theta	8.06	100	806	1.384	11 153	358.6
	Theta & Browns Hill	Beta	2.17	100	217	0.778	1 686	54.2
	Columbia Hill	Upper Rho	5.12	134	687	0.131	673	21.6
<b>Total Inferred</b>			<b>3.84</b>	<b>129</b>	<b>497</b>	<b>4.292</b>	<b>16 470</b>	<b>529.5</b>

Resource Classification	Open Pit Mine	Reef	Reef Grade	Reef Width	Content	Reef Tonnes	Au Content	
			g/t	cm	cmgt	Mt	Kg	koz
Indicated	Total Theta Project	All	2.29	258	591	5.3	12 066	387.9
Inferred	Total Theta Project	All	3.84	129	497	4.3	16 470	529.5
<b>Total Indicated and Inferred</b>			<b>2.99</b>	<b>200</b>	<b>598</b>	<b>9.6</b>	<b>28 535</b>	<b>917.4</b>

Notes:

1. Theta Project (Theta Hill, Browns Hill and Iota) cut-off is 0.35 g/t;
2. The gold price used for the cut-off calculations is USD 1,500 / oz;
3. Geological losses applied are 10% for inferred and 5% for Indicated and Measured;
4. Theta Hill and Browns Hill - Upper Theta Reef, Lower Theta Reef and Beta Reef are diluted grades over 100cm;
5. Historical mine voids have been depleted from the Mineral Resource;
6. The inferred Mineral Resources have a high degree of uncertainty and it should not be assumed that all or a portion thereof will be converted to Ore Reserves;
7. Mineral Resources fall within the mining right 83MR and 341MR.

## Annexure B

### Mining Rights and Applications for Mining Rights

MR No	Description	Farms	Effective Date	Expiry Date	Remarks
<b>NORTHERN TENEMENTS (MR83, MR330, MR340, MR341, MR10167)</b>					
MR 83	Greater TGME	Portions 1, 2, 3, 4, 5 and the Remaining Extent of Frankfort 509KT, Krugers Hoop 527 KT, Portions 1, 2 and the Remaining Extent of Morgenzon 525 KT, Peach Tree 544 KT, Portions 18, 42, 43, 44 and Remaining Extent of Ponieskrans 543 KT and Portion 1 and the Remaining Extent of Van der Merwes Reef 526 KT	16-Oct-13	15-Oct-23	Amendment application pending to include open cut mining
MR 330	Beta Re-Development & Grootfontein Cluster	Portions 1, 2, 3 and the Remaining Extent of Grootfonteinberg 561 KT and Remaining Extent of Grootfontein 562 KT	Refer Note 1	Refer Note 1	Granted
MR 340	Hermansburg	Portion of the Remaining Extent of Hermansburg 495 KT	10-Jul-13	09-July-23	Granted
MR 341	PTD's	Portions 1 and 2 and a Portion of the Remainder Extent of Grootfontein 562KT	25-Sep-19	16-Feb-22	Granted
MR 10167	TGME	Desire 563KT, RE and Ptn 1, 2, 3, 12, 14, 15, 17, 18, 19, 20, 22 and 23 of Doornhoek 545KT, RE and Ptn 1, 2 and 3 Rotunda Greek 510KT, Vaalhoek 474KT, Buffelsfontein 452KT, RE and Ptn 1 of Willemsoord 476KT, Sacramento 492KT, Granite Hill 477KT, Blackhill 528KT, Manx 475KT, Klondyke 493KT, Hermansburg 495KT	Refer Note 1	Refer Note 1	Consolidation of Prospecting Rights 10255PR, 10404PR, 10254PR  Granted
<b>SOUTHERN TENEMENTS (MR198, MR358, MR433, MR10161)</b>					
MR198	Elandsdrift Heap Leach Pad	Portions 1 and 2 of Elandsdrift 220 JT	18-Mar-08	17-Mar-09	Renewal submitted
MR 358	Rietfontein	Portion of the Remaining Extent and Portion 2 and 3 of the farm Spitzkop 195 JT, Portion of Portion 16 of Waterval 168 JT and Portion of the Remaining Extent of Maliveld Vallei 192 JT	05-Jun-13	04-Jun-28	Amendment application pending to incorporate portions of Portions 1, 4 and 6 of the farm Rietfontein 193 JT
MR 433	Glynn's Lydenburg	Portion 5 of Grootfontein 196 JT and Remaining Extent of Olifantsgeraamte 198 JT	12-Nov-13	11-Nov-23	Granted
MR 10161	Sabie	Spitzkop 195JT, Ptns of the RE and Ptn 1 of Hendriksdal 216JT, Grootfontein 196JT, Waterval 168JT, Sheba 219JT, Verroosting 218JT, Olifants Geraamte 198JT, Rietfontein 193JT	Refer Note 1	Refer Note 1	Consolidation of Prospecting Rights 10005PR, 660PR, 10252PR  Granted

**Note 1:**

*The period of grant of the mining right will be determined upon execution thereof. In the South African context, mining rights may be granted for up to 30 years and are renewable thereafter.*

## Annexure C

### Unlisted Options and Performance Rights

Number	Performance Hurdle/Vesting Date (if applicable)	Exercise Price	Expiry Date
<b>OPTIONS</b>			
3,158,353		\$0.40	27 Apr 2022
5,000,000		\$0.50	30 Jun 2022
800,000	Options will vest on 1 October 2021	\$0.30	30 Sep 2022
400,000	Options will vest on 3 and 4 January 2022	\$0.30	31 Dec 2022
<b>9,358,353</b>	<b>TOTAL OPTIONS</b>		
<b>PERFORMANCE RIGHTS/OPTIONS</b>			
50,000	All systems, licences, insurances, regulatory and statutory compliance in place to meet South Africa Mining regulations, laws, Mining Charter 111, commercial contacts. (Mine ready).	Nil	27 Jun 2024
920,000	Delineating a total of 300,000 ounces of gold ore reserves (in accordance with the JORC Code 2012 <sup>1</sup> ) at grade of at least 2.5g/t Au.	Nil	27 Jun 2024
4,420,000	Decision to Mine (Board approval to commence development of a gold mining operation) with all regulatory approvals secured. This performance hurdle must be achieved on or before 27 Sep 2021.	Nil	27 Jun 2024
5,730,000	Achieving annualised production of 50,000 ounces of gold per annum over a consecutive period of 3 months. This performance hurdle must be achieved on or before 27 Sep 2022.	Nil	27 Jun 2024
5,980,000	Achieving annualised production of 100,000 ounces of gold per annum over a consecutive period of 3 months. This performance hurdle must be achieved on or before 27 Mar 2024.	Nil	27 Jun 2024
1,200,000	Decision to Mine	\$0.40	30 Sep 2025
800,000	Production Commencement	\$0.40	30 Sep 2025
1,200,000	3 months production (ounces) on schedule as per Theta Project Optimised Feasibility Study or from underground mine production, or the combination thereof, at AISC of US\$855/oz (+/- 10%)	\$0.40	30 Sep 2025
640,000	12 months production (ounces) on schedule as per Theta Project Optimised Feasibility Study or from underground mine production, or the combination thereof, at AISC of US\$855/oz (+/- 10%)	Nil	30 Sep 2025
320,000	Production of over 25,000 ounces of gold over a consecutive period of 3 months	\$0.50	30 Sep 2025
640,000	Production of over 25,000 ounces of gold over a consecutive period of 3 months	Nil	30 Sep 2025
320,000	Production of over 37,500 ounces of gold over a consecutive period of 3 months	\$0.50	30 Sep 2025
640,000	Production of over 37,500 ounces of gold over a consecutive period of 3 months	Nil	30 Sep 2025
500,000	Production of over 12,500 ounces of gold over a consecutive period of 3 months	\$0.50	31 Dec 2025
600,000	Production of over 25,000 ounces of gold over a consecutive period of 3 months	\$0.50	31 Dec 2025
800,000	Production of over 37,500 ounces of gold over a consecutive period of 3 months	\$0.50	31 Dec 2025
<b>24,760,000</b>	<b>TOTAL PERFORMANCE RIGHTS/OPTIONS</b>		
<b>34,118,353</b>	<b>TOTAL OPTIONS AND PERFORMANCE RIGHTS/OPTIONS</b>		

## Appendix 5B

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

Name of entity

THETA GOLD MINES LIMITED

ABN

30 131 758 177

Quarter ended ("current quarter")

31 March 2021

Consolidated statement of cash flows		Current quarter \$US'000	Year to date (9 months) \$US'000
<b>1.</b>	<b>Cash flows from operating activities</b>		
1.1	Receipts from customers		
1.2	Payments for		
	(a) exploration & evaluation (if expensed)	(333)	(786)
	(b) development		
	(c) production		
	(d) staff costs	(131)	(375)
	(e) administration and corporate costs (includes Sydney, Johannesburg and Pilgrim's Rest minesite offices)	(508)	(1,653)
1.3	Dividends received (see note 3)		
1.4	Interest received	1	3
1.5	Interest and other costs of finance paid	(3)	(11)
1.6	Income taxes paid		
1.7	Government grants and tax incentives		
1.8	Other (provide details if material)		
<b>1.9</b>	<b>Net cash from / (used in) operating activities</b>	<b>(974)</b>	<b>(2,822)</b>
<b>2.</b>	<b>Cash flows from investing activities</b>		
2.1	Payments to acquire:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment	(9)	(41)
	(d) exploration & evaluation (if capitalised)	(778)	(1,830)
	(e) investments		
	(f) other non-current assets		

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

Consolidated statement of cash flows		Current quarter \$US'000	Year to date (9 months) \$US'000
2.2	Proceeds from the disposal of:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment	-	39
	(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 (provide details if material)		
2.6	<b>Net cash from / (used in) investing activities</b>	<b>(787)</b>	<b>(1,832)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	2,319	5,530
3.2	Proceeds from issue of convertible debt securities		
3.3	Proceeds from exercise of options		
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(196)	(509)
3.5	Proceeds from borrowings	478	797
3.6	Repayment of borrowings	(19)	(102)
3.7	Transaction costs related to loans and borrowings		
3.8	Dividends paid		
3.9	Other (provide details if material)		
3.10	<b>Net cash from / (used in) financing activities</b>	<b>2,582</b>	<b>5,716</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	388	147
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(974)	(2,822)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(787)	(1,832)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	2,582	5,716

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

Consolidated statement of cash flows		Current quarter \$US'000	Year to date (9 months) \$US'000
4.5	Effect of movement in exchange rates on cash held		
4.6	<b>Cash and cash equivalents at end of period</b>	<b>1,209</b>	<b>1,209</b>

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 \$US'000	Previous quarter \$US'000
5.1	Bank balances	1,209	388
5.2	Call deposits		
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>1,209</b>	<b>388</b>

**6. Payments to related parties of the entity and their associates**

- 6.1 Aggregate amount of payments to related parties and their associates included in item 1
- 6.2 Aggregate amount of payments to related parties and their associates included in item 2

**Current quarter  
\$US'000**

158<sup>(1)</sup>

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

<sup>(1)</sup> Payments to related parties in item 6.1 above are for director fees and consulting fees.

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

7.	<b>Financing facilities</b> <i>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.</i>	<b>Total facility amount at quarter end \$US'000</b>	<b>Amount drawn at quarter end \$US'000</b>
7.1	Loan facilities	3,157	3,157
7.2	Credit standby arrangements		
7.3	Other (please specify)		
7.4	<b>Total financing facilities</b>	3,157	3,157
7.5	<b>Unused financing facilities available at quarter end</b>	-	
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.		
Details of the loan facilities are set out in Note 14 of the Company's Financial Report for the year ended 30 June 2020.			

8.	<b>Estimated cash available for future operating activities</b>	<b>\$US'000</b>
8.1	Net cash from / (used in) operating activities (Item 1.9)	(974)
8.2	Capitalised exploration & evaluation (Item 2.1(d))	(778)
8.3	Total relevant outgoings (Item 8.1 + Item 8.2)	(1,752)
8.4	Cash and cash equivalents at quarter end (Item 4.6)	1,209
8.5	Unused finance facilities available at quarter end (Item 7.5)	-
8.6	Total available funding (Item 8.4 + Item 8.5)	1,209
8.7	<b>Estimated quarters of funding available (Item 8.6 divided by Item 8.3)</b>	0.69
8.8	If Item 8.7 is less than 2 quarters, please provide answers to the following questions:	
	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	
	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 continues to engage with financial advisors to undertake a capital raising.  As announced on 25 March 2021, the Company has also entered into an At-The-Market Subscription Deed ("ATM") with Acuity Capital. The ATM provides the Company with up to A\$15 million of standby equity capital with the expiry of the ATM being 31 July 2023.  The Company believes that it will be successful in obtaining additional funding.	

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 raise funds (debt and/or equity) to continue its activities. The Company owns the Theta Project which is ready for development, subject to permitting approval and finance (ASX announcement 20 April 2020).

The Company has also completed a Pre-Feasibility Study on selected underground mines which has demonstrated excellent project economics (ASX announcement 13 April 2021).

The group's large tenement holding in South Africa is potentially very prospective and remains largely unexplored using modern technology. The Theta Project, potential underground mines development and the prospective tenement holding should underpin the company's ability to raise funds for its business needs.

### 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: 30 April 2021

Authorised by: Board of Directors  
(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.