



6 April 2022

ASX ANNOUNCEMENT

## **SIGNIFICANT PROGRESS MADE TO ADVANCE THE TGME UNDERGROUND DEFINITIVE-FEASIBILITY STUDY**

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### **HIGHLIGHTS:**

- **Feasibility Study ~85% completed following progress across a number of key workstreams**
- **Metallurgical test work conducted on Rietfontein ore samples reveal a gold recovery rate of 89.5%**
- **Completion of metallurgical testing at Rietfontein finalises the metallurgical work across all four mine sites forming part of the Feasibility Study**
- **Rock engineering modelling completed at Rietfontein – supports the completion of mine design and geotechnical studies**
- **Theta Gold advancing plant design and underground tailing work ahead of anticipated completion of feasibility study in Q2 2022**

Theta Gold Mines Limited (“Theta Gold” or “Company”) (ASX: TGM | OTC: TGMGF) is pleased to provide an update on the progress made for the Feasibility Study (‘FS’) being undertaken at the Company’s TGME Underground (UG) project which comprises the Beta, Frankfort, CDM, and Rietfontein mines.

Commenced in September 2021, the Feasibility Study is now ~85% finalised following considerable progress made on a number of key workstreams including the completion of block models, mine scheduling, geotechnical, ventilation and engineering studies and metallurgical test work (refer table 1).

The feasibility study is anticipated to be finalised in Q2, 2022, which will allow the Company to progress towards mine build and project development financing. Post DFS the company will advance discussions with several parties in relation to the larger develop CAPEX funding

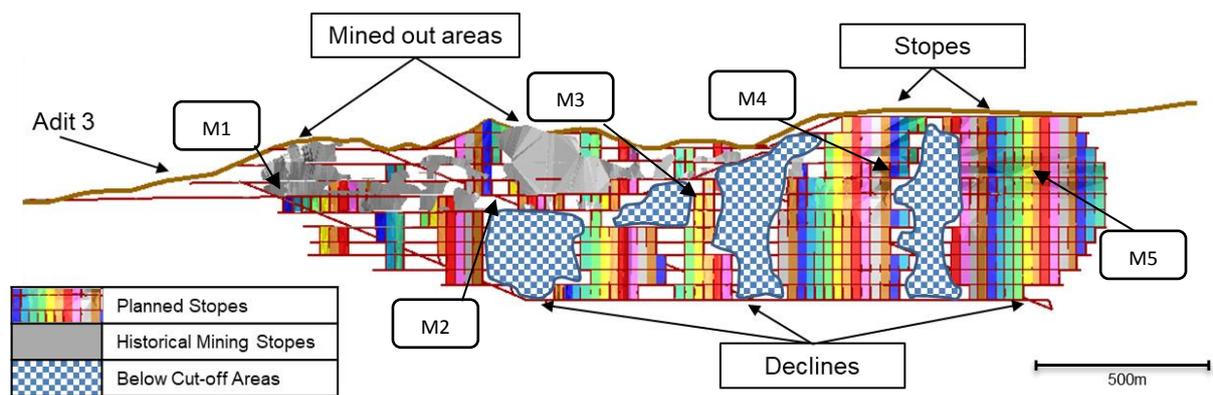
options. The DFS will incorporate four mines and a shared metallurgical facility, designed according to multiple detailed studies and test work that are now drawing towards a final conclusion.

### Metallurgical test completed for Rietfontein Mine

Metallurgical test work undertaken at the Rietfontein Mine has achieved an encouraging 89.5% gold recovery from simple leach testing (Free Milling Ore). 1.5-ton representative ore samples were taken at various points along the 3.2km orebody strike length, with five approximately equal samples collected by channel sampling across the gold reef system.

Samples were collected from both high and low-grade gold areas in the mine to get a representative sample. The bulk sample was dispatched to “Ready Lead Assay Laboratory” for Bottle Roll Leach Test. Testing confirming a free-milling ore with a head grade of 4.41g/t and an overall ore recovery factor of 89.5%.

**Figure 1: Rietfontein Mine Sample Points**



**Table 1: Sample points locations**

Sample	Grade	Location Number See Figure 1
Met 63 Rietfontein Entrance	1.17 g/t	M1
Met 63 Rietfontein 13 -1	2.93 g/t	M2
Met 63 Rietfontein 3 Adit-1	8.07 g/t	M3
Met 63 Rietfontein 3 Adit- 2	7.48 g/t	M4
Met 63 Rietfontein Entrance	2.42 g/t	M5

## Rock engineering modelling

Rock engineering modelling has also now been completed on the vertical gold reef system at Rietfontein. The modelling was undertaken to assess the optimum rock support system, indicating the size of the rib, crown, and sill pillars. Results from Rock Mechanics Laboratory revealed that a 2.5m rib pillar, 5.0m crown, and sill pillar will be stable and the conditions acceptable for shrinkage mining at Rietfontein.

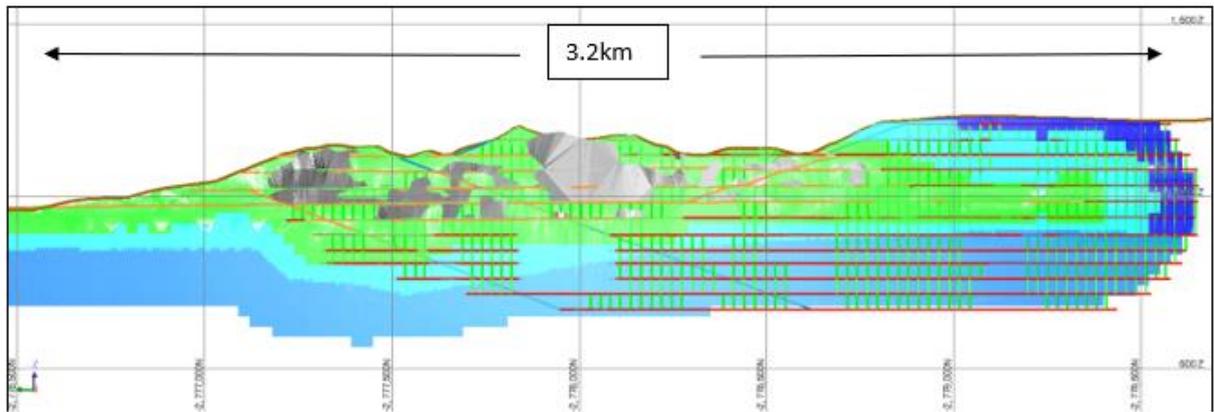
In addition, the uniaxial, tensile, and compressive strength and deformation modulus of the reef and surrounding rock was tested. The hanging wall and footwall are both more competent rock than the reef with higher Uniaxial Compressive Strength (UCS) and elastic modulus. The implication is that the reef can be blasted out without causing excessive damage to the hanging wall and footwall. It also implies that the correct sized pillars will intentionally crush without damaging the host rock.

**Chairman Mr Bill Guy stated,** *“The completion of metallurgical test work and rock engineering modelling moves the feasibility study one step closer to completion. With Rietfontein now included in the TGME Underground project DFS alongside the Beta, CDM and Frankfurt mines, the board hopes to extend the Life of Mine to approximately 10 years.*

*“With the feasibility now moving to into its final stages we will continue to ramp up initiatives in order remain on track for completion in Q2. I look forward to updating shareholders as initiatives are completed and milestones hit.”*

Description	Beta	Rietfontein	Frankfort	CDM
Geotechnical Studies	✓	✓	✓	55%
Mine Design Criteria	✓	✓	✓	✓
Mine Design	✓	✓	✓	✓
Mine Schedule	✓	✓	✓	✓
Ventilation Studies	✓	✓	✓	✓
Underground Tailing Deposition	92%			
RFQ	✓	✓	✓	✓
Mining OPEX	90%	90%	90%	90%
Engineering Infrastructure	✓	✓	✓	✓
Electrical Design	✓	✓	✓	✓
Hydrological Test Work	✓	✓	✓	✓
Hydrological Studies	✓	✓	✓	✓
Engineering Designs	✓	✓	✓	✓
Engineering OPEX	70%	70%	70%	70%
Engineering CAPEX	70%	70%	70%	70%
Metallurgical Test Work	✓	✓	✓	✓
Plant OPEX	65%	65%	94%	94%
Plant CAPEX	59%	59%	88%	88%

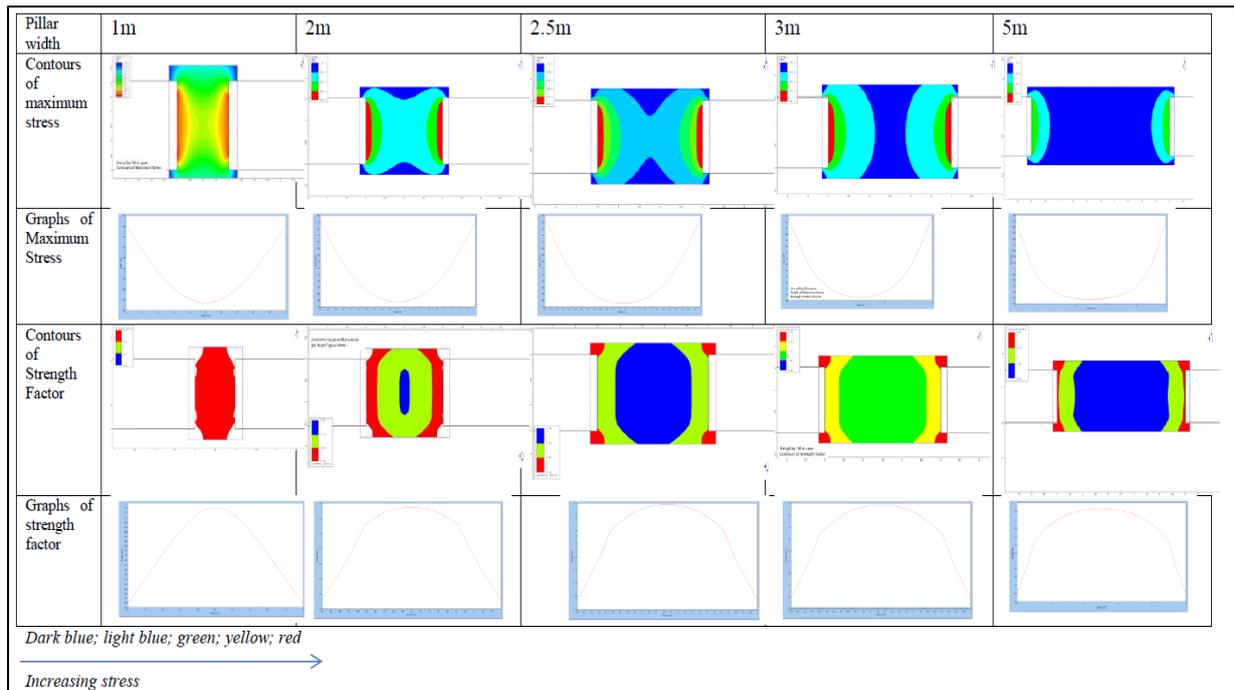
**Table 2 – Progress on feasibility study activities.**



**Figure 2 – Rietfontein Mine underground section view**



**Figure 3 – Samples being extracted from the Rietfontein Mine**



**Figure 4 – Summary of rib pillar modelling results**

[ENDS]

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

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

Bill Guy, Chairman  
 Theta Gold Mines Limited  
 T: + 61 2 8046 7584 E: [billg@thetagoldmines.com](mailto:billg@thetagoldmines.com)

**Investor Relations**

Australia: Ben Jarvis, Six Degrees Investor Relations: +61 (0) 431 271 538  
 United States: Michael Porter, Porter, LeVay & Rose Inc: +1 212 564 4700,  
[theta@plinvest.com](mailto:theta@plinvest.com)

**Webpage:** [www.thetagoldmines.com](http://www.thetagoldmines.com)



<https://twitter.com/ThetaGoldMines>



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**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.



#### 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.

#### COMPETENT PERSONS STATEMENT

Metallurgical Results:
The information in this press release relating to Metallurgical results is based on, and fairly reflects, the information and supporting documentation compiled by Mr Rogan Roulstone, a consultant to the Company and a member (No. 705817) of the South African Institute of Mining and Metallurgy.

#### 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 Mines 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.

**JORC Checklist – Table 1 Assessment and Reporting Criteria**

SECTION 1: SAMPLING TECHNIQUES AND DATA																												
Criteria	Explanation	Detail																										
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	<p>Sampling types discussed in this section mainly pertain to historical data with the exception of the Theta Project subsequent to the 2017-2019 drilling campaign. Drilling data sampling types include diamond, reverse circulation (“RC”), percussion and auger drilling. Other sampling data types include underground channel chip sampling (as individual sample section composite data points on plans or as development or stope face composite stretch values), grab sampling as well as trench and sample pit sampling for bulk sampling for the purposes of size fraction analysis.</p> <p>The table below outlines the types of sampling data collected or utilised in the Mineral Resource or Exploration Target estimates for each of the Project Areas.</p> <table border="1"> <thead> <tr> <th>Project Area</th> <th>Reef</th> <th>Sampling Data Types</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Rietfontein</td> <td rowspan="2">Rietfontein</td> <td>Drillhole Data</td> </tr> <tr> <td>Channel Chip Sample Data</td> </tr> <tr> <td rowspan="2">Beta</td> <td rowspan="2">Beta</td> <td>Drillhole Data</td> </tr> <tr> <td>Channel Chip Sample Data</td> </tr> <tr> <td rowspan="2">Frankfort</td> <td rowspan="2">Bevetts and Theta</td> <td>Drillhole Data</td> </tr> <tr> <td>Channel Chip Sample Data</td> </tr> <tr> <td rowspan="2">Clewer, Dukes Hill &amp; Morgenzon</td> <td rowspan="2">Rho</td> <td>Drillhole Data</td> </tr> <tr> <td>Channel Chip Sample Data</td> </tr> <tr> <td rowspan="2">Olifantsgeraamte</td> <td rowspan="2">Olifantsgeraamte</td> <td>Drillhole Data</td> </tr> <tr> <td>Channel Chip Sample Data</td> </tr> <tr> <td>Vaalhoek</td> <td></td> <td>Drillhole Data</td> </tr> </tbody> </table>	Project Area	Reef	Sampling Data Types	Rietfontein	Rietfontein	Drillhole Data	Channel Chip Sample Data	Beta	Beta	Drillhole Data	Channel Chip Sample Data	Frankfort	Bevetts and Theta	Drillhole Data	Channel Chip Sample Data	Clewer, Dukes Hill & Morgenzon	Rho	Drillhole Data	Channel Chip Sample Data	Olifantsgeraamte	Olifantsgeraamte	Drillhole Data	Channel Chip Sample Data	Vaalhoek		Drillhole Data
		Project Area	Reef	Sampling Data Types																								
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SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	Explanation	Detail		
			Vaalhoek and Thelma Leaders	Channel Chip Sample Data
				Stretch Values
		Glynn's Lydenburg	Glynn's	Drillhole Data
				Channel Chip Sample Data
				Stretch Values
		Theta Project (Theta Hill, Browns Hills and Iota section of Columbia Hill)	Beta, Shale, Lower Theta, Upper Theta, Lower Rho, Upper Rho and Bevetts	Drillhole Data
				Trench Sampling Data
				Channel Chip Sample Data
		Columbia Hill (remaining)	Rho, Shale and Shale Leaders	Drillhole Data
				Channel Chip Sample Data
		Hermansburg	Eluvial	RC Drillhole Data
		DG1	Eluvial	RC Drillhole Data
		DG2	Eluvial	RC Drillhole Data
		DG5	Eluvial	Grab Samples
				RC Drillhole Data
		Glynn's Lydenburg TSF	Tailings	Auger Drillhole Data
		Blyde TSFs (1, 2, 3, 3a, 4, 5)	Tailings	Auger Drillhole Data
		TGM Plant	Tailings	Auger Drillhole Data
		Vaalhoek, South East (DGs), Peach	Rock Dump	Bulk Sampling Data
				Trench Sampling Data

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	Explanation	Detail		
		Tree, Ponieskrantz , Dukes Clewer		Sampling Pit Data
<p>Channel Chip Sampling Data:-</p> <p>Historical (Pre-1946) chip sample values were captured in 'pennyweight' (dwt) units for gold content and in inches for channel width. The quality of the chip samples could not be ascertained due to the historical nature there-of; however, it should be noted chip sampling is a well-established sampling method in the underground South African mining industry. The sampling activity on the mines was usually managed by each mine's survey department and were usually conducted to specific company-wide standards.</p> <p>More recent chip sample values were captured as cm.g/t content values and channel widths were recorded in centimetres as is the case at Frankfort while under ownership of Simmer &amp; Jack Mines Limited. During 2008, Minxcon audited the chip sampling procedure as employed by Simmer &amp; Jack and found the procedures employed to be of industry standard.</p> <p><b>Rietfontein Metallurgical samples</b></p> <p>Face channel sampling conducted by hand tools horizontally across vertical quartz sulphide gold reef. All reef material collected with no crushing or sieving onsite.</p> <p>300 kg collected at each sample site and 5 samples collected in total for 1.5 tons of bulk sample.</p> <p>All samples dispatched to Ready Lead Assay Laboratory SA</p> <p>Stretch Values:-</p> <p>In some instances (such as at Vaalhoek and Glynn's Lydenburg) in areas where original sample plans were not available, stretch value plans recording a composite content and channel width value for a stope length or development end were available and included in the database. The integrity of these plans as a source of grade information has been proven in other areas on the same mines where both chip sample plans and stretch value plans were</p>				

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	Explanation	Detail
		<p>available and were compared. It was found that the correlation to old sampling has been representative of the stretch values in these areas.</p> <p>Drillhole Data:-</p> <p>Historical (pre-2007/8) drillhole data (inclusive of diamond, RC, and auger) exists on many of the operations. However very little backing data is available for many of these older holes and it must be assumed that QAQC was not included in the process. Minxcon has however reviewed the general quality of the survey data for these drillholes. For the most part, collar data has been found to agree well with local topography and is considered to be acceptable for modelling purposes.</p> <p>Downhole survey data with respect to diamond and RC drilling is also often absent from the older holes; however, it should be noted that over 98% of these holes were seldom drilled to depths in excess of 150 m and were vertically collared. Only 1.40% of all the drillholes on all the properties were drilled as inclined drillholes, thus it is Minxcon’s view that the holes and their relative reef intercept points would be spatially acceptable for modelling purposes.</p> <p>The historical drillhole data has no accompanying assay QAQC, however this fact is considered in allocation of Mineral Resource classification during modelling.</p> <p>More recent drillhole data (inclusive of diamond, RC and auger) from 2008 onward is considered to be of high quality as it was conducted to updated industry standards with the incorporation of drillhole collar survey as well as assay QAQC where blanks and certified reference material were inserted for monitoring purposes, with the inclusion of coarse duplicate samples. These later drilling programmes were also either monitored, audited or managed by Minxcon personnel under Minxcon previous sister company Agere Project Management (“Agere”).</p> <p>Trench, Sample Pit and Bulk Sampling (Vaalhoek Rock Dump):-</p>

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	Explanation	Detail
		<p>In order to evaluate the Vaalhoek Rock Dump, trenches and sample pits were dug. The trenches and pits were surveyed by a Mine Surveyor and were sampled in sections down to a depth 1.2 m, each sample representing a composite of 40 cm down the wall of the trench or pit. These samples were then assayed. The discard material from the trenches and pits was then composited to form a bulk sample of 50 tonnes for conducting size fraction analysis. The nature and quality of the sampling in question has been considered in the Mineral Resource classification for the Vaalhoek Dump, which is Inferred.</p> <p>Bulk Sampling (South East (DGs), Peach Tree, Ponieskrantz, Dukes Clewer):-</p> <p>Bulk sampling was done through a triple deck screening plant (bulk samples were between 20t and maximum 520t per waste rock dump).</p> <p>Trench Sampling (Theta Project Browns Hill):-</p> <p>Trenching was conducted on Browns Hill during the 2017-2019 drilling campaign to assist in locating the Lower Theta Reef outcrop. Trenches were dug in roughly an east-west orientation to a depth of between 1.0 m to 2.1 m. A total of 10 trenches were dug with an approximate spacing of approximately 30 to 35 m. The trenches were sampled near to vertical at 2 m intervals, due to the very shallow dip of the reef, where full side-wall composite samples were taken. Samples were dispatched to SGS Laboratory in Barberton for analysis. The trench sampling was not used in any evaluation as its only purpose was to locate reef outcrops.</p>
	<p>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</p>	<p>Chip Sampling:-</p> <p>In concordant reef underground projects chip samples were taken normal to the reef dip and calculated to give a composited value for a true reef thickness. In the case of cross-reefs such as that at Rietfontein, chip sample positions were plotted on the development centre lines indicating face sampling normal to the reef dip. Scatter plots were also generated to examine the data set for errors introduced while capturing the data. All values were converted using factors of 2.54 cm for 1 inch and 1.714285 g/t for 1 dwt.</p>

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	Explanation	Detail
		<p>The older underground sampling took place at approximately 6 m spacing along on-reef development, whilst in newer mining areas this spacing was reduced to approximately 2 to 3 m along on-reef development. In the stoping areas a grid was targeted on an approximate 5 m by 5 m grid where applicable, which is a historical grid (Pre-1946). This grid was put in place due to the nugget effect of the reef. The minimum size of the samples was 20 cm to obtain a minimum weight of 500 g.</p> <p>Trench, Sample pit and Bulk Sampling (Vaalhoek Rock Dump):-</p> <p>The trenches at Vaalhoek Rock Dump were located and spread as evenly as possible on the top of the dump, while pits were located on the sides of the dump and these were sampled in sections down to a depth 1.2 m, each sample representing a composite of 40 cm down the wall of the trench or pit. The discard material from the trenches and pits was then composited to form a bulk sample of 50 tonnes for conducting size fraction analysis and screened at -10 mm, +40 mm and -75 mm. The nature and quality of the sampling in question has been considered in the Mineral Resource classification for the Vaalhoek Dump, which is Inferred.</p> <p>Trench, Sample pit and Bulk Sampling (Theta Project):-</p> <p>The trenches were dug in roughly an east-west orientation to a depth of between 1.0 m to 2.1 m. A total of 10 trenches were dug with an approximate spacing of approximately 30 m to 35 m. The trenches were sampled near to vertical at 2 m intervals, due to the very shallow dip of the reef, where full side-wall composite samples were taken. The trench sampling was not used in any evaluation as its only purpose was to locate reef outcrops.</p>
	<p>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse</p>	<p>Samples presented in the historical database represent full reef composites for both diamond drilling as well as chip sampling. The historical nature of the data and the high grades encountered implies the use of fire assay as an assay technique. Sample preparation and aspects regarding sample submission for assay are not known due to the historical nature of the sampling data.</p> <p>Underground sampling, for metallurgical purposes, was undertaken at the northern Neck section of Vaalhoek during February, 2018. Two samples weighing approximately 4kg were</p>

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	Explanation	Detail
	<p>circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</p>	<p>taken from exposed faces of the Vaalhoek Reef, in two separate underground localities of previous mining. Two samples were also taken of Thelma Leader mineralisation located in underground exposures adjacent to the Vaalhoek Dyke. These samples also weighed approximately 4 kg each. All samples were composites of rock chipped over the reef width. The four samples were submitted for Bottle Roll testwork at SGS Barberton, which is discussed under the Metallurgical section.</p> <p>The smallest split drillcore sample taken was 15 cm in length. After crushing and pulverising the core sample, a 30 g cupel was utilised for analysis. Low core recoveries resulted in reverting to RC drilling for evaluation purposes. For the RC drilling conducted at the Theta Project, the mass of recovered sample obtained was recorded on a per metre drilled basis, with approximately 3 kg of sample per metre run, being split off by means of a 3-tier riffle splitter for submission to SGS Laboratories in Barberton. Assays pertaining to the Theta Project were conducted by means of gold by fire assay with a gravimetric and/or flame atomic absorption spectrometry ("AAS") utilising a 30 g cupel.</p>
Drilling techniques	<p>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</p>	<p>Underground/Hard Rock Projects:-</p> <p>All historic (pre 2007/2008) Mineral Resource evaluation drilling for the underground projects was conducted in the form of diamond drilling. Information regarding drilling diameter, drill tube type and core orientation is not available or discernible for the earlier 1995/1996 drilling as the core is no longer available. Only core loss, intersection length and grade (g/t) are recorded with various levels of geological lithological information. Due to the age of the data in question and the non-availability of the historical drill core, information regarding drilling diameter, drill tube type, core orientation is not available. More recent drillhole data (inclusive of diamond, RC and auger) from 2008 onward is considered to be high quality as it was conducted to updated industry standards with the incorporation of assay QAQC where blanks and certified reference material ("CRM") were inserted for monitoring purposes. Core drilling utilised an NQ (47.6 mm) drill bit. Details pertaining to earlier drilling programs' core orientation are not available. Due to</p>

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	Explanation	Detail
		<p>poor diamond drillcore recoveries during the 2017-2019 drilling campaign, core orientation was not conducted.</p> <p>Open Pit or Eluvial Projects:-</p> <p>Drilling on the eluvial deposits took place under the auspices of Horizon Blue Resources and is regarded as being of high quality due to good survey control and inclusion of QAQC practices. The main drilling method (95% of drillholes) utilised to evaluate these projects was reverse circulation (4.5 inch (115 mm) and 6 inch (150 mm) diameter) drilling, vertical reverse circulation drillholes, with or without temporary casing depending on ground condition in the vicinity of the various drill sites. Rotary core drilling (NQ size with 75.7 mm outside diameter and 47.6 mm inside diameter) was utilised in 5% of the drillholes on these projects. More recent drillhole data (inclusive of diamond, RC and auger) from 2008 onward is considered to be of high quality as it was conducted to updated industry standards with the incorporation of assay QAQC where blanks and certified reference material (“CRM”) were inserted for monitoring purposes. Core drilling utilised an NQ (47.6 mm) drill bit. Details pertaining to earlier drilling programs’ core orientation are not available. Due to poor diamond drillcore recoveries during the 2017-2019 drilling campaign, core orientation was not conducted.</p> <p>Tailings Projects:-</p> <p>Drilling on the tailings projects was conducted by means of small diameter (45 mm and 50 mm) auger drilling. Drillhole positions have been surveyed by TGM utilising a GPS based Total station. All holes were drilled vertically.</p>
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	<p>Diamond Drilling:-</p> <p>Information regarding the 1995/1996 recoveries is not available. However, during the 2008 and 2012/2013 drilling campaigns the recoveries were recorded.</p> <p>Diamond drill core recoveries were recorded during the 2013 drilling programmes, which was managed by Minxcon Exploration</p>

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	Explanation	Detail
		<p>(Pty) Ltd. Core recovery percentage was calculated for each drill run. Sample recoveries were maximised through drilling techniques (diamond drilling), however drilling recoveries versus grade relationships were not assessed.</p> <p>During the 2017-2019 drilling campaign consistent and accurate records relating to core and RC drill sample recovery were maintained on a per sample basis. Diamond drill samples were measured on a per sample basis and related back to the recorded drill run length versus the length of drill core recovered, which was then presented as a percentage. The average drill recovery achieved during the diamond drilling campaign was approximately 65%, with at least 33.3% of samples achieving recoveries of 50% or less. This low recovery resulted in reverting to RC drilling as a means of obtaining representative drill data for evaluation purposes.</p> <p>RC Drilling:-</p> <p>Details regarding the chip sample recovery of the historical RC drilling for the eluvial project are not available or existent in Minxcon's data records. For the RC drilling conducted at the Theta Project, the mass of recovered sample obtained was recorded on a per metre drilled basis, with approximately 3 kg of sample per metre run, being split off by means of a 3-tier riffle splitter for submission to SGS Laboratories in Barberton.</p>
	<p>Measures taken to maximise sample recovery and ensure representative nature of the samples.</p>	<p>Owing to the historical nature of the data in question (prior to 2005), measures taken to maximise sample recovery and ensure the representative nature of the samples are not known.</p> <p>During the 2008, 2012/2013 and 2017-2019 drilling campaign, sample recoveries were maximised through utilising appropriate drilling techniques depending on the deposit in question. In order to ensure the representative nature of the drilled intersections and due to the dip of the reefs being very shallow at between 3° to 12°, drillholes were drilled vertically in order to obtain an intersection as close to normal as possible. Owing to low core recoveries achieved in the 2017-2019 drilling campaign, RC drilling was utilised to maximise sample recovery.</p>

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	Explanation	Detail
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Sample recovery versus grade was not assessed due to the lack of historical drill core and sample rejects, as well as due to the low diamond drilling sample recovery experience during the 2017-2019 drilling campaign. Sample recovery and grade relations with regard to the RC drilling was not possible due to not having a historical RC dataset to compare with. It is Minxcon's view that samples recording a core loss would result in a net negative bias, resulting in a potentially lower reported gold value. Twinning of these holes might serve to support this theory.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	Historical drillholes (pre-2007/2008) in most cases have no original drillhole logs available for review. Summary lithological strip logs or MS Excel™ logs are available in most cases however and present lithological changes and reef positions. It is Minxcon's view that the level of detail available is still supportive and appropriate for Mineral Resource estimation. This level of detail has been considered in allocation of Mineral Resource classification.  All 2008 drillholes were geologically logged including the deflections (or wedges) and the 2012/2013, as well as the 2017-2019 drilling campaign drillholes were both geologically and geotechnically logged. It is Minxcon's view that logging was done to a level of detail appropriate to support Mineral Resource estimation.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	No detailed drillhole logs are available for the historical (pre-2007/2008) surface drilling. No core or core photography is available for review. The 2008 and 2012/2013 logging was qualitative in nature and core photos of all intersections were also taken. Logging conducted during the 2017-2019 drilling campaign was also qualitative in nature. All drill core and reference RC Chip sample trays were photographed and archived for record purposes.
	The total length and percentage of the relevant intersections logged.	Historical drillholes (pre-2007/2008) in most cases have no original drillhole logs available for review. Summary lithological strip logs or MS Excel™ logs are available in most cases however and present lithological changes and reef positions. Based on the information available it is assumed that all historical intersections represented in the Mine Resource estimation dataset were logged. All drilling and relevant intersections relating to 2007 through to, and including the 2017-2019 drilling programme were logged. The

SECTION 1: SAMPLING TECHNIQUES AND DATA		
Criteria	Explanation	Detail
		logging information per Project is presented in the full CPR document and described in detail.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	<p>It is not known how core was split in historical drilling (pre-2007/2008) campaigns. It is assumed that core was split as has been routine exploration practice. However, sampling/core records/libraries or protocols for this period are not available for review.</p> <p>In later drilling programmes (including the 2017-2019 drilling campaign) core was sawn in half lengthwise down the core axis. Once the core had been split the core was sampled along lithological boundaries. The smallest sample that was taken was 15 cm which was governed by the low core recovery, as well as the minimum weight required for a laboratory sample.</p> <p>Individual samples for NQ cores were 20 cm long. Reef samples were &gt;10 cm and &lt;40 cm.</p>
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Historical Protocols pertaining to the RC and auger drilling sample splitting are not available for scrutiny and thus unknown. During the 2017-2019 RC drilling programme, samples were dry sampled and riffle split through a 3-tier riffle splitter
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	For historical diamond drilling (pre-2007/2008) no protocols pertaining to sample preparation techniques are available for scrutiny. Recent (inclusive of the 2017-2019 drilling campaign) drilling sampling preparation and its appropriateness is in line with industry practice.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	<p>Historical (pre-2007/2008) historical sub-sampling techniques were not available for review.</p> <p>All later drilling programmes utilised blanks and certified reference materials in order to maximise representivity of samples. In the 2017-2019 drilling campaign, coarse duplicates were added to the</p>

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	Explanation	Detail
	<p>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</p>	<p>QAQC programme to test repeatability and thus representivity of samples.</p> <p>Pertaining to historical (pre-2007/2008) drilling programmes, sub-sampling techniques were not available for review. In 2008, only blanks and certified reference material were used. No field duplicate/second –half or subsequent quarter sampling was conducted to Minxcon’s knowledge.</p> <p>Later drilling programmes utilised only blanks and certified reference material. No field duplicate/second–half or subsequent quarter sampling was conducted. In the 2017-2019 drilling campaign, coarse field duplicates were added to the QAQC programme to test repeatability and thus representivity of samples. Out of 292 duplicates taken, three were identified as outliers. Once these were removed from the dataset, a correlation coefficient of 0.9683 was achieved, presenting very high correlation, thus supporting the view of sample representivity.</p>
	<p>Whether sample sizes are appropriate to the grain size of the material being sampled.</p>	<p>Pre-2007/2008: Not known. Historical sample size taken were not recorded.</p> <p>Later programmes considered sample length versus core diameter together with assay laboratory techniques and protocols to ensure sample sizes were appropriate relative to the material in question being sampled. It is Minxcon’s view that the sample sizes take are appropriate to the gold grain size being sampled due to the fact that out of 292 duplicates taken (2017-2019 drilling programme), three were identified as outliers. Once these were removed from the dataset, a correlation coefficient of 0.9683 was achieved, presenting very high correlation, thus supporting the view of sample representivity.</p>
<p>Quality of assay data and laboratory tests</p>	<p>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</p>	<p>Historical underground channel chips were reported in dwt, it is assumed that only fire assay was utilised and it is assumed that the technique represents total analysis.</p> <p>In 2008, all diamond core samples including blanks and certified reference material (“CRM”) were dispatched to Set Point Laboratories (“Set Point”) in Isando, Johannesburg, South Africa. Set Point is a SANAS certified laboratory, in accordance with the recognised international standard ISO/IES 17025:2005, with</p>

SECTION 1: SAMPLING TECHNIQUES AND DATA		
Criteria	Explanation	Detail
		<p>accreditation number T0223. The samples were analysed for Gold (“Au”) by standard fire assay with ICP finish, and specific gravity (“SG”) analysis were conducted on selected samples. It is assumed that the technique represents total analysis.</p> <p>Up to May 2007, all RC samples were sent to ALS Chemex Laboratory. From May 2007 onwards, RC samples were sent to Performance Laboratories (now SGS Performance Laboratories) and core samples to ALS Chemex (which is SANAS accredited) for fire assay by lead separation and AA finish. Each sample was also analysed for a spectrum of 34 metals using Inductively Coupled Plasma (“ICP”) techniques. It is assumed that the technique represents total analysis.</p> <p>In 2017, samples from drillholes V6 and V8 including blanks and certified reference material were dispatched to Super Laboratory Services (Pty) Ltd (“Super Labs”) in Springs, South Africa. Super Labs is a SANAS certified laboratory, in accordance with the recognised international standard ISO/IES 17025:2005, with accreditation number T0494. The assay samples are 50 g samples in mass and are assayed for gold (Au) by means of fire assay with gravimetric finish. It is assumed that the technique represents total analysis.</p> <p>For the 2017-2019 drilling campaign, all drillhole samples were sent to SGS Performance Laboratories in Barberton. SGS Performance Laboratories, Barberton is a SANAS certified laboratory, in accordance with the recognised international standard FAA303, with accreditation number T0565. Assays pertaining to the Theta Project were conducted by means of gold by fire assay with a gravimetric and/or flame AAS utilising a 30 g cupel. This assay technique is viewed as being total.</p>
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including	No assay methods other than those conducted by laboratories as mentioned above were utilised in the generation of any of the TGM projects sampling database.

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	Explanation	Detail
	<p>instrument make and model, reading times, calibrations factors applied and their derivation, etc.</p>	
	<p>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</p>	<p>No records of Assay QAQC are available for the historical data due to the age there-of (i.e. pre-1946 for channel chip sampling, and for drilling predating 2007/2008) and due to the accepted practices in place at the time.</p> <p>Drilling campaigns conducted post 2007/2008 and the accompanying sampling was conducted according to industry standards. QAQC measures were implemented by regular insertion of blanks and standards into the sampling stream. Minxcon considers that the QAQC measures, as well as data used for Mineral Resource estimation, were of adequate quality. Approximately 17% of the samples sent to the laboratory represented assay control material. Minxcon is of the opinion that an adequate number of control samples were utilised during this drilling programme. No field duplicates were however used during the 2008 drilling and sampling programmes.</p> <p>During the 2012/2013 exploration programme, the project was stopped due to budgetary constraints and the completed drillholes were not assayed at the time.</p> <p>For the 2013 drilling programme the samples were analysed in 2017 and a total of 84 samples including blanks and certified reference material were dispatched to Super Labs. Two CRMs, namely AMIS0016 and AMIS0023, and silica sand blanks were used in the sampling sequence. Roughly every fifth sample inserted in the sampling sequence was a QAQC sample. A total of two AMIS0023, two AMIS0016, five duplicates and six blank samples were used. Approximately 18% of the samples sent to the laboratory represented assay control material. Minxcon is of the opinion that an adequate number of control samples were utilised.</p>

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	Explanation	Detail
		<p>During the 2017-2019 drilling programme the CRMs and blanks were inserted at predetermined positions in the sampling sequence, namely: analytical blank samples were placed at the beginning and at the end of a drillhole. With the diamond drilling control samples were placed in the sampling stream at every tenth sample, with a sequential rotation between a blank, CRM and duplicate. With the RC drilling, this was similarly done, but at every twentieth sample position. In both cases the control sample spacing was based upon the batch size utilised by the laboratory in order to ensure each tray included at least one blank and an additional control sample during sample preparation and analysis.</p> <p>Approximately 2.75% of the samples sent to the laboratory represented CRM and 4.5% represented analytical blanks and 1.3% represented coarse duplicates. These samples are in addition to the in-laboratory assay conducted by the laboratory which traditionally adds up to 20% control samples to the total sample stream, usually incorporating a CRM as well as an analytical blank and two duplicate samples to each sample batch. Minxcon is of the opinion that an adequate number of control samples were utilised during this drilling programme.</p>
<p>Verification of sampling and assaying</p>	<p>The verification of significant intersections by either independent or alternative company personnel.</p>	<p>No verification of historical assay results is currently possible due to the historical nature of the data in question and the non-availability of the core.</p> <p>Minxcon verified the historically bagged samples for drillholes V6 and V8 for accuracy and representativeness before sending them to the laboratory in 2017. Those samples that were not representative or missing were re-sampled from the remaining core at TGM.</p> <p>Minxcon reviewed all historical datasets chip sampling and the historical drilling attributed to the various historical operations, as well as digital plans (scanned DXF plans of sampling plans) and found that captured sample positions had good agreement with those in the digital dataset. In addition, different versions of the underground sampling file were found and cross validated to test for data changes or eliminations. These were corrected where applicable.</p>

SECTION 1: SAMPLING TECHNIQUES AND DATA		
Criteria	Explanation	Detail
		<p>Minxcon reviewed, verified and cross-checked captured assays relating to the 2008 drilling dataset by means of checking for transfer mistakes, gaps and overlaps in sampling intervals and also checked that all reef composites were correctly calculated for each reef intersection, before calculating the weighted mean of drillhole points with multiple intersections of wedges.</p> <p>Minxcon conducted checks on sampling during the 2017-2019 drilling programme by means of standard assay QAQC procedures and reviewing and cross-checking the .pdf assay results provided by the laboratory and those copied into the database utilised for evaluation. In addition, reviews of the sampling process were conducted by Minxcon personnel other than those managing the programme, namely the then Competent Person Mr Uwe Engelmann, and Mr Paul Obermeyer, the Minxcon Mineral Resource Manager.</p>
	Discuss any adjustment to assay data.	No adjustments were made to raw assay data according to Minxcon's knowledge.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Not known. Historical data capture and data entry procedures were not available for review. The 2007/2008 and 2013 exploration programmes were logged and captured on hardcopy. These were then transferred to MS Excel™. Minxcon currently only has the data in this digital format for verification purposes. During the 2017-2019 drilling campaign, all logging and sampling were logged and captured on hardcopy and then captured in MS Excel™. Assay results were received from the laboratory in MS Excel™ .csv format as well as .PDF, thus allowing verification and comparison between hardcopy, source and digital data files.
	The use of twinned holes.	No twinned holes were drilled.
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other	TGM utilised a handheld GPS for the purpose of locating historical adits and mine entrances, which in turn have been utilised in conjunction with historical survey data in positioning the historical underground workings in 3D. Historical survey plans with plotted survey peg positions and elevations are available for most of the historical underground operations. These pegs were installed by mine surveyors relative to fixed local mine datum's. The survey pegs and workings have been digitised in ARCVIEW GIS 10™.

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	Explanation	Detail
	<p>locations used in Mineral Resource estimation.</p>	<p>Each data point and stretch value on the original assay plans was marked and annotated with a reef width and gold grade. Assay plan images were imported into GIS and co-ordinates converted from a local grid co-ordinate (WG31) system to a WGS84 grid system. The plans were then captured into Datamine Studio 3™. The captured assay points were plotted on a plan of the underground workings to ensure that the points plotted correctly relative to development and stoping. The sampling has in turn been fixed to the underground development and stoping voids. It is Minxcon’s opinion that sample positional accuracy would be within 5 to 10 m of the original sample point (within acceptable limits of a GPS). Drillhole collars were also located by means of handheld GPS co-ordinates.</p> <p>Assay plan images were imported into GIS and co-ordinates converted from a local grid co-ordinate system to a WGS84 grid system. The plans were then captured into Datamine®. The captured assay points were plotted on a plan of the underground workings to ensure that the points plotted correctly relative to development and stoping.</p> <p>Historically, sampling points were measured by means of measuring tape and the resultant offsets plotted on the sampling and development plans.</p> <p>Information pertaining to the instrument used for downhole survey conducted before and including the 2007/2008 drilling programmes is not available During the 2012/2013 drilling programme an EZ-Trac with EZ Com was used.</p> <p>Drillholes drilled at the Theta Project did not have downhole surveys conducted due to all being drilled vertically and due to them all being under 200 m in depth. Drillhole collars were located by two means. Of the 371 holes drilled some 99 collars were surveyed utilising an RTK Trimble R8 GPS Survey Total Station, while the balance was recorded by means of handheld GPS. TGM complete a LIDAR survey over the Theta Project in March 2019 which was then used to re-elevate the collar positions to the new</p>

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	Explanation	Detail
		LIDAR surface for improved accuracy. The 3D geological model was updated in June 2019 and the Mineral Resource was adjusted accordingly.
	Specification of the grid system used.	The grid system used is Hartebeeshoek 1994, South African Zone WG31.
	Quality and adequacy of topographic control.	Minxcon utilised the GPS co-ordinates provided by TGM for the adit positions, as well as ventilation openings to assist in verifying and fixing the underground workings in 3D space. Very good correlation between the digital topography and the underground mining profiles was found. The tailings and rock dump projects were surveyed utilising standard survey methods (Survey total station) and detailed topographical data collected. This data was subsequently rendered as digital contour plans. A LIDAR survey was conducted in March 2019 and was compared to the original digital topography utilised in the reef modelling. Discrepancies were found to be small with negligible impact on the geological model or the reef block models. The 3D geological model was revised in June 2019 and the Mineral Resource adjusted accordingly. There was an overall increase of 9% in the ounces in the Mineral Resource for the Theta Project due to the changes in the reef elevation and reef outcrop positions.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	<p>In the stoping areas, the mean channel chip sample grid spacing was approximately on a 5 m x 5 m grid, while on development in older areas samples were taken at about 5 m to 6 m intervals, while in more recent areas sample sections were taken at between 2 m to 3 m spacing. Available information shows that diamond drillholes were drilled on an irregular grid of between 200 m to 500 m.</p> <p>Owing to the more advanced investigation stage (i.e. Mineral Resources and Ore Reserves), no Exploration Results have been reported.</p> <p>In the stoping areas, the sample stretch values were spaced approximately at 15 m on dip and 4 m on strike, while in more detailed areas sample spacing was found to be as little as 3 m between points. In the development, stretch values spacing varied from 4 m to 20 m, while in more detailed areas sample spacing is seen to be as close a 3 m.</p>

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	Explanation	Detail
		<p>Drillhole spacing for the underground projects varies significantly and is considered during Mineral Resource classification. In one specific case (Vaalhoek) two drillholes (V6 and V8) did not significantly affect the Mineral Resource estimation as they were beyond the variogram range of the sample points (1,000 m) as Minxcon did not include the drillhole data with the stretch value data. They did however prove continuity of the reef.</p> <p>For the Glynn’s Lydenburg and Blyde TSF projects, auger drilling was conducted on a 25 m x 25 m grid spacing, while on the TGM Plant TSF auger drilling was conducted on an approximate 50 m x 50 m grid.</p> <p>The Hermansburg eluvial deposit was drilled on an approximate 25 m x 25 m grid, while the DG deposits were drilled on an approximate 20 m x 20 m by 25 m x 25 m grid spacing, depending on local topography and access.</p>
	<p>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</p>	<p>It is Minxcon’s opinion that drillhole and sample spacing is adequate for the purpose of conducting meaningful Mineral Resource estimation in and around stoping areas due to the density of the chip sampling data. It is Minxcon’s view that the drillhole spacing pertaining to the Theta Project conducted during the 2017-2019 drilling programme is adequate for the purpose of conducting Mineral Resource estimation. Spacing per reef is viewed as being appropriate to the Mineral Resource categories applied.</p>
	<p>Whether sample compositing has been applied.</p>	<p>All channel chip sample points within the underground operations database represent full reef composites. Full reef composites were applied to drillholes belonging to the underground operations due to the inherent narrow nature of the reefs concerned. All eluvial, TSF drillholes and rock dump sample points were composite at fixed downhole sample intervals for the purposes of conducting full</p>

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	Explanation	Detail
		<p>3D Mineral Resource Estimations on these types of deposits. During the 2017-2019 drilling programme, in thin reef environments with reefs of &lt;1 m (Upper Theta, Lower Theta and Beta Reefs) diluted (to 1 m) reef composites were utilised for evaluation purposes due to the minimum sample width obtained during the RC drilling being 1 m. In thick reef environments (Upper Rho, Lower Rho, Bevetts and Shale reefs), individual original sample widths of 1 m were maintained for utilisation in 3D estimation.</p>
<p>Orientation of data in relation to geological structure</p>	<p>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</p>	<p>Concordant reefs are all near horizontal and as such these dip at between 3° to 12° to the west and strike in a north–south direction. Drillholes were drilled vertically (-90° dip) to intercept the mineralised shear zones at a near perpendicular angle in order that the sampling of the drill core minimises the sampling bias. Chip sampling in concordant reef environments was conducted normal to reef dip. It is Minxcon’s view that sampling orientation has attempted to reduce sample bias with respect to angle of intersection. All intersections represented corrected reef widths.</p> <p>Discordant reef as encountered at Rietfontein is vertical to sub-vertical. Drillholes were orientated at angles to intercept the mineralised shear zones at as near a perpendicular angle in plan and acute angle in section as possible in order that the sampling of drill core minimises the sampling bias. Chip sampling was conducted normal to reef dip. It is Minxcon’s view that sampling orientation has attempted to reduce sample bias with respect to angle of intersection. All intersections represented corrected reef widths.</p> <p>All sampling of the TSF was conducted vertically. This is normal to the orientation of deposition and is therefore achieves unbiased sampling</p>
	<p>If the relationship between the drilling orientation and the</p>	<p>Available information indicates that the drilling orientation provides reasonably unbiased sampling of the mineralisation zones.</p>

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Criteria	Explanation	Detail
Sample security	The measures taken to ensure sample security.	Measures taken to ensure sample security pertaining to the historical chip sampling are not available due to the historical nature of the data in question.  Measures taken to ensure sample security during historical drilling programmes (1995/1996 and 2008 drilling) are not available due to the historical nature of the data in question. During 2012/2013 all core samples were stored in a locked facility prior to dispatch to
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Minxcon reviewed all historical datasets attributed to the various projects comprising the Mineral Resources, historical plans and sections as well as digital plans (scanned DXF plans of sampling plans) and found that historically captured sample positions had good agreement with those in the digital dataset. In addition, different versions of the underground sampling files were found and cross validated to test for data changes or eliminations. Minxcon also digitised a series of plans or sampling points and stretch values which were used in the various estimations. Minxcon was not able to audit or review the sampling techniques in practice due to the historical nature of the data in question.

SECTION 2: REPORTING OF EXPLORATION RESULTS		
Criteria	Explanation	Detail
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or	The mining rights are held under Transvaal Gold Mining Estates Limited ("TGME"), a 74% indirect subsidiary of TGM. The mineral rights 83MR, 340MR, 341MR, 358MR and 433MR have been granted, registered and executed, held over certain Mineral Resource areas. Their accompanying environmental and social permits are also executed.  The mining rights 10161MR and 10167MR have been granted and are pending execution. The mining rights 330MR and 198MR are still in the approval process.  A Section 102 amendment process for inclusion of Theta Project into 83MR is currently underway, with the environmental and socio-economic studies, as well as water use licence application process,



SECTION 2: REPORTING OF EXPLORATION RESULTS

Criteria	Explanation	Detail
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Acknowledgement is hereby made for the historical exploration conducted from 1977 to 1982 by Placid Oil and Southern Sphere over the northern areas over the TGM holdings. From 1982 to 1992, Rand Mines conducted sporadic alluvial prospecting along the Blyde River, limited surface diamond drilling, re-opening of old workings and extensive exploration programmes around the town of Pilgrims Rest. TGME and Simmer & Jack conducted drilling, geochemical soil sampling, trenching and geological mapping.
Geology	Deposit type, geological setting and style of mineralisation.	<p>Epigenetic gold mineralisation in the Sabie-Pilgrims Rest Goldfield occurs as concordant and discordant (sub-vertical) veins (or reefs) in a variety of host rocks within the Transvaal Drakensberg Goldfield, and these veins have been linked to emplacement of the Bushveld Complex.</p> <p>Mineralisation in the region occurs principally in concordant reefs in flat, bedding parallel shears located mainly on shale partings within the Malmani Dolomites. These bodies are stratiform, and are generally stratabound, and occur near the base of these units.</p> <p>The discordant reefs (or cross-reefs) are characterised by a variety of gold mineralisation styles. At Rietfontein, a sub-vertical quartz-carbonate vein occurs which reaches up from the Basement Granites and passes to surface through the Transvaal. They are found throughout the Sabie-Pilgrims Rest Goldfield, and are commonly referred to as cross reefs, blows, veins, and leaders and exhibit varying assemblage of gold-quartz-sulphide mineralisation generally striking northeast to north-northeast. They vary greatly in terms of composition, depth and diameter. In addition to the above, more recent eluvial deposits occur on the sides of some of the hills and are thought to represent cannibalised mineralised clastic material resulting from the erosion of underlying reefs. Gold mineralisation is accompanied by various sulphides of Fe, Cu, As and Bi.</p>
Drillhole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following	A summary of the data types and the number of data attributable to each project is presented in the table below. It should be noted that all the projects listed are historical mining areas and do not constitute exploration projects in the true sense of the word. However, detailed drillhole summary tables are presented in the CPR in the appropriate sections pertaining to Exploration Targets. It should be noted that the numbers presented for drillholes in the

**SECTION 2: REPORTING OF EXPLORATION RESULTS**

Criteria	Explanation	Detail
	<p>information for all Material drillholes:</p> <ul style="list-style-type: none"> <li>* easting and northing of the drillhole collar</li> <li>* elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar</li> <li>* dip and azimuth of the hole</li> <li>* down hole length and interception depth</li> <li>* hole length.</li> </ul>	<p>table below represent all drillhole records, regardless of the status of the data concerned.</p>

Project Area	Sampling Data Types	Historical datasets (Pre - 2007/2008)	Recent Datasets
		Quantity (Incl. Wedges)	Quantity
Rietfontein	Drillhole Data	8	-
	Channel Chip Sample Data	2,265	-
Beta	Drillhole Data	7	20
	Channel Chip Sample Data	4,553	-
Frankfort	Drillhole Data	15	59
	Channel Chip Sample Data	3,187	864
CDM	Drillhole Data	115	-
	Channel Chip Sample Data	24,483	-
Olifantsgeraamte	Drillhole Data	1	-
	Channel Chip Sample Data	316	-
Vaalhoek	Drillhole Data	16	8
	Channel Chip Sample Data	3,836	-
	Stretch Values	1,472	-
Glynn's Lydenburg	Drillhole Data	-	-
	Channel Chip Sample Data	26,435	-

		Stretch Values	872	-
	Theta Project (Theta Hill, Browns Hill & Iota section of Columbia Hill)	Drillhole Data	263	371
		Trench Sampling	-	10
		Channel Chip Sample Data	7,472	-
	Columbia Hill (remaining)	Drillhole Data	26	-
		Channel Chip Sample Data	14,478	-
	Hermansburg	RC Drillhole Data		79
	DG1	RC Drillhole Data	-	
	DG2	RC Drillhole Data	-	221
	DG5	Grab Samples	-	≈100
		RC Drillhole Data	-	19
	Glynn's Lydenburg TSF	Auger Drillhole Data	-	140
	Blyde TSFs (1, 2, 3, 3a, 4, 5)	Auger Drillhole Data	-	86
	TGM Plant	Auger Drillhole Data	-	34
	Vaalhoek (Rock dump)	Bulk Sampling Data	-	1
		Trench Sampling Data	-	13
		Sampling Pit Data	-	57
	South East (DGs) (Rock dump)	Bulk Sampling Data	50	-
	Peach Tree (Rock dump)	Bulk Sampling Data	8	-
	Ponieskrantz (Rock dump)	Bulk Sampling Data	10	-

SECTION 2: REPORTING OF EXPLORATION RESULTS

Criteria	Explanation	Detail				
		Dukes Clewer (Rock dump)	Bulk Sampling Data	13	-	
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	All the available drillholes on all projects and project types that were historically sampled and had the assay result available, were used for Mineral Resource estimation with the exception of four drillholes (in the case of Rietfontein) where out of eight drillholes, a total of four were excluded from the estimation due to excessive poor core recovery. All 10 drillholes drilled in 2012/2013 as well as three drillholes drilled in 2008 were only used for geological modelling due to the fact that the project was stopped due to budget constraints and the mineralised zones were never assayed.				
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	<p>All chip samples and drillhole samples were agglomerated. Data type biases were not investigated due to the small number of drillhole intersections. Where stretch values were used in the estimation these were composited to a 3 m composite based on a minimum stretch length. These values were treated separately and not included in the chip sample database. Areas utilising stretch values were immediately relegated to Inferred Mineral Resource classification.</p> <p>During the 2017-2019 drilling programme, in thin reef environments with reefs of &lt;1 m (Upper Theta, Lower Theta and Beta Reefs) diluted (to 1 m) reef composites were utilised for evaluation purposes due to the minimum sample width obtained during the RC drilling being 1 m. In thick reef environments (Upper Rho, Lower Rho, Bevetts and Shale Reefs), individual original sample widths of 1 m were maintained for utilisation in 3D estimation.</p>				
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated	All chip samples and drillhole samples were agglomerated. Data type biases were not investigated due to the small number of drillhole intersections. Where stretch values were used in the estimation these were composited to a 3 m composite based on a minimum stretch length. These values were treated separately and not included in the chip sample database. Areas utilising stretch values were immediately relegated to Inferred Mineral Resource classification.				

SECTION 2: REPORTING OF EXPLORATION RESULTS

Criteria	Explanation	Detail
	and some typical examples of such aggregations should be shown in detail.	During the 2017-2019 drilling programme, in thin reef environments with reefs of <1 m (Upper Theta, Lower Theta and Beta Reefs) diluted (to 1 m) reef composites were utilised for evaluation purposes due to the minimum sample width obtained during the RC drilling being 1 m. In thick reef environments (Upper Rho, Lower Rho, Bevetts and Shale reefs), individual original sample widths of 1 m were maintained for utilisation in 3D estimation.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents were calculated.
Relationship between mineralisation widths and intercept lengths	If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.	For the historical drillhole intersections (as well as intersections pertaining to the 2017-2019 drilling campaign) no downhole lengths have been reported – only true reef widths have been recorded in the estimation database on the historical sampling plans and sections. All drilling was conducted near normal to bedding so is reef width would be very closely related to the intersection length due to the low dip of the orebody and the vertical drilling of the drillholes.
	If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Historical underground chip sampling is sampled normal to the dip of the reef so is therefore the true width.  Only true width data is available. All significant grades presented in the estimation dataset represent the value attributable to the corrected sample width and not the real sampled length.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of	The TGM Mineral Resource is not a true greenfields exploration project but rather a mature mining operation with a wealth of historical underground chip sampling and drillhole intersections which have been collated, captured and digitised. The CPR has the detail diagrams of the sampling datasets for the various operations. These include chip samples and drillhole intersections.

SECTION 2: REPORTING OF EXPLORATION RESULTS

Criteria	Explanation	Detail
	drillhole collar locations and appropriate sectional views.	
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	The various Mineral Resource estimations were conducted by Minxcon and are based upon the information provided by TGM. This Mineral Resource Report contains summary information for all historic sampling and drilling campaigns within the Project Area, as well as new data obtained during the evaluation drilling conducted at the Theta Project and provides a representative range and mean of grades intersected in the datasets.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential	Various exploration campaigns have been conducted over the years but not all information is available or relevant to the current Mineral Resource update. No other exploration data other than that presented for the purposes of the Mineral Resource estimation is therefore presented here. TGM has undertaken additional drilling at Columbia Hill (Iota), Theta Hill, Browns Hill and Iota (Theta Project). This data has been incorporated in the current Mineral Resource estimate.  TGM has completed and is still in the process of completing metallurgical testwork and studies for the recoveries of the various reefs. This testwork all forms part of the feasibility study that is being completed.

SECTION 2: REPORTING OF EXPLORATION RESULTS

Criteria	Explanation	Detail
	deleterious or contaminating substances.	
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	The properties have a number of potential exploration targets that may increase the current Mineral Resource and Ore Reserve. These are spread over a number of the project areas and cover lateral extensions, depth extensions as well as compiling and re-interpreting historical datasets. The table below is a summary of the near-term potential exploration targets. The scale of the exploration depends on the available budget and therefore cannot be defined currently.

		Project	Type of Potential	Comment
		Rietfontein	Lateral and depth extensions	Lateral extension is possible to the south which is untested as well as at depth below the current historical mining areas
		Beta	Lateral extension	Lateral extension of the main beta "Payshoot"
		CDM	Lateral extension	Lateral extension to the south toward Dukes' Hill South
		Theta	Lateral extension	Lateral extension to the south on both Theta Hill and Browns Hill once 341MR is available. Lateral extension to the west and southwest at Iota
		Vaalhoek	Depth extensions and open-pit opportunities	Near surface potential (open pit) exists on the Vaalhoek Reef and Thelma Leaders Reef
		Glynn's Lydenburg	Shallow lateral extensions	The new model has identified new

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Criteria	Explanation	Detail		
				high-grade exploration targets for possible near surface open pit opportunities
		Columbia Hill	Shallow lateral extensions	The new geological interpretation has identified Columbia Hill as a potential open pit target that will be drilled in the near future
		This table excludes all the other historical mines that have not been investigated yet.		
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	The potential areas for the various mines have been detailed in the CPR. Detailed exploration strategy and budget has not been finalised due to the unknown available budget.		