

# Market Announcement

ASX: NTL, NZX: NTL

## For Immediate Release

**NEW Talisman**  
GOLD MINES LIMITED

### Quarterly Activities Report to 31 March 2018

New Talisman Gold Mines Limited

#### **Responsible, Environmentally Sustainable Mining**

ASX/NZX Code **NTL**

**Commodity Exposure**  
GOLD and SILVER

#### **Board and Management**

**Charbel Nader** Chairman/Independent Director  
**Matthew Hill** Chief Executive/ Managing Director  
**Murray Stevens** Non-Exec Director  
**Tony Haworth** Independent Director  
**Jane Bell** Company Secretary  
**Wayne Chowles** Chief Operating Officer  
**Ash Clarke** Chief Financial Officer

#### **Capital Structure**

**Ordinary Shares** at 20/03/2018 2,164m

#### **Share Price**

**Share Price** at 30/04/2018 (NZX) 1.6cps  
**Share Price** at 30/04/2018 (ASX) 1.5cps



#### **New Talisman Gold Mines Limited**

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#### **HIGHLIGHTS**

- **Mystery access works completed in No 8 Level Drive;**
- **Metallurgical test work yields positive results;**
- **Pilot plant design to produce bullion complete;**
- **Check sampling results confirms grade of Mystery Vein;**
- **Transfer of Rahu permit to NTL completed.**

During the quarter to 31 March 2018 works progressed at the Talisman mine site with support works completed on the No 8 Level drive and commissioning of the ventilation lock.

Metallurgical test work of Talisman ore using gravity and flotation processing methods has yielded very positive results with recovery rates nearing those attained from similar tests involving cyanide leaching. The Company has established a pilot test work programme and design of the pilot plant is complete. Use of these processing methods to recover gold is compatible with NTL's goal for the Talisman Mine to be a responsible, environmentally sustainable operation.



## Mine Refurbishment

Mine refurbishment has progressed well with the underground team having completed all remedial support work in the No 8 Level Drive. Services have been extended through the drive and into Keillors Crosscut where support work is now underway.



Concurrent with support work in Keillors Crosscut and extension of mining services towards the Mystery Drive, the team has commenced refurbishing the Dubbo Drive with the intention of gaining access to the high-grade Dubbo Zone.

Installation of the underground water reticulation system is well underway and will be commissioned in the following quarter. This system enables closed loop recirculation of water from storage to the working face and back and ensures efficiency of water use.

Construction of the ventilation lock is complete, with delivery and commissioning of the primary ventilation fan expected in the current quarter.

*Figure 1- Services extended in Keillors Crosscut*

Three new ventilation seals have been constructed in the main drive which will improve the efficiency of the ventilation system by preventing leakage of air into and from old workings.

An inspection of the support standards applied during refurbishment of the drive was carried out by an Australian Geotechnical Engineering expert. Positive feedback was received on the quality of work carried out by the underground team.

### Current exploration activities

As part of preparation for the upcoming Bulk Sampling programme the Company has undertaken sampling of the Mystery vein to understand gold distribution within the vein and assess the potential for applying a specialised mining method, such as “resue” mining where the vein material and host rock are removed in separate cuts,



*Figure 2 - Completed ventilation lock at No 8 Level Portal*

to minimise dilution and to maximise the grade of ore fed to the processing plant.

Three channel samples were taken from a cross section on the Mystery Vein on the north vein drive.



Figure 3 - installation of rock bolts in Keillors Crosscut

These comprised a 0.3m wide hanging wall sample, a 1.45m wide vein sample and a 0.35 wide footwall sample. The grades for the samples ranged from 0.78g/t Au, 3g/t Ag to 47.3g/t Au, 40g/t Ag. **The main vein assayed 47.3g/t Au, 40g/t Ag over 1.45m.** Significantly the 0.35m footwall sample averaged 6.44g/t Au, 13g/t Ag and is attributed gold bearing quartz stringers marginal to the main vein.

Including this foot wall sample gives a weighted average grade over **1.8m of 39.35 g/t Au,**

**34.75g/t Ag.**

Work on gaining access to extended parts of the Talisman Mine has continued with the team identifying a rise from the No 8 Level Bonanza Reef Drive which has been partially inspected and may provide access to the extension of No 7 Level. The area around the base of the rise has been supported and further inspections will be carried out over the coming weeks.

### Pre-Feasibility Study Update

The updated pre-feasibility study on the Talisman Project is nearing completion and the results of this study will be released to the market following internal review. A Pre-feasibility Study is a techno-economic evaluation of the project and is confined to evaluating the economic impact of extraction of ore from the Measured and Indicated Resources contained in a mineral deposit.

A comparison of the estimated measured and indicated resources from the 2004 resource estimate against those announced to the market in the updated 2017 mineral resource estimate, (MRE) is set out in the table below:

	Tonnes	AuEq Grade (g/t)	Oz AuEq
MRE 2004	410,190	4.97	65,660
MRE 2017	200,500	<u>12.50</u>	<u>80,580</u>



Figure 4- completed ventilation seal in the No 8 Level drive.

As can be seen in the table, the combined measured and indicated resource categories have increased significantly by approximately 25% since the 2004 estimate. This increase, combined with the increase in grade from an average of 4.97g/t AuEq to 12.50g/t, is expected to have a very positive effect on the projects financial metrics. **It is important to note the PFS only takes into account the mineral resources accessible from the level 8 workings, and not the entire Talisman Deeps resources which are being evaluated through a scoping study.**

### **Metallurgical Test work**

During the quarter the Company completed a programme of metallurgical test work designed to deliver reliable and repeatable results to inform engineering studies and cost estimates both for pilot test work during the Bulk Sampling Project and for plant design in an updated Pre-Feasibility Study. This information was previously released to the market on 04 April 2018 please see release at <https://www.asx.com.au/asxpdf/20180404/pdf/43syfsdcp9rf.pdf>

The testwork investigated the four stages of the metalurgical process namely:

- 1) Grinding of ore to a suitable size to liberate gold.
- 2) Recovery of free milling gold in a gravity concentrator.
- 3) Flotation of the concentrator tails to recover additional gold.
- 4) Final recovery of gold from concentrate.

Three samples of 25kg each, representative of the Mystery Vein, Maria Vein and host rock, were collected and sent for testing. The sample of ore from the Mystery Vein was chipped from the face of the Mystery North drive while the Maria Vein sample was retrieved from an ore stockpile. The third sample was barren andesite which is the rock in which the veins are hosted and was sent for control purposes. Two samples, one from each vein system, were processed during the test work regime.

#### **Grinding**

Determining the optimal grind size to liberate gold contained in the ore is a critical part of the process. Milling of ore takes place in a ball or rod mill and is the most expensive and energy intensive part of the process. The finer the grind size required the more energy and time is taken up, but too coarse a grind size will result in poor recovery of gold. Two grind sizes were tested in this programme with ore initially milled to p80 passing 106µm and again to p80 passing 53µm.

#### **Gravity Concentration**

As gold has a higher specific gravity than the host rock it is possible to separate it from the rest of the ore using a centrifuge to enhance the gravitational force experienced by feed particles. This is the same process as applied when panning for gold but more efficient and able to treat higher volumes of ore.

In the test work programme the milled product was pulped to 50 % solids and the resultant pulp passed through a Knelson Centrifugal Concentrator. Final free gold concentrate (pan concentrate) was assayed via total fusion to eliminate sampling error and nugget effect.



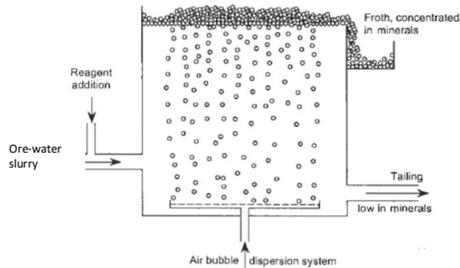
Secondary concentrate (pan tailing) and final tailings were dried, weighed and split for Au assay.

Results from this show that 61.3% of gold in Dubbo ore, and 81.9% of gold in Mystery ore can be recovered directly by gravity concentration.

### **Flotation**

The flotation process works by adding water and environmentally benign agents (known as surfactants) to the mineral slurry. The surfactants essentially react with the precious metals and make them hydrophobic, causing them to float to the surface of the slurry where they are scraped off.

In this programme the tailings from the gravity concentrator were pulped to 20% solids and subjected to single stage flotation with the addition of copper sulphate, sodium isobutyl and Dow 250 which are all environmentally benign reagents.



An additional 32.7% of gold from Dubbo ore and 11.7% from Mystery ore, were recovered through this process, yielding overall recoveries of 94% and 93.6% respectively. Variance of recovery rates between the two grind sizes was insignificant. This is comparable to the recovery achieved from

Talisman ore which has previously been treated using a cyanide leach process. Importantly, the gravity and flotation process will produce inert tailings with low sulphide levels.

### **Gold Recovery**

On exit from the flotation tanks the concentrate can either be sold directly on the market or the gold recovered on a shaker table and smelted.

### **Pilot Plant Design**

Based on the above results NTL has completed design of a suitable pilot plant to emulate the processes outlined above. This plant, while small, will enable the Company to process ore won from the mine workings and produce gold bullion. The plant will consist of primary and secondary crushers, to reduce run of mine ore to mill feed size, and a mill followed by gravity concentration and flotation circuits.

Selection and purchase of the final equipment is underway, and the Company expects to complete the purchase of the equipment shortly for the commencement of pilot plant commissioning in the next quarter.

This will put the Company in the position of being able to produce gold bullion from the gravity concentrate and a high grade flotation concentrate for further refining or sale.

Given both the average grades at Mystery and the results of the metallurgical testwork a concentrate is expected to yield in excess of 46 grams (1.5 oz) per tonne on average. At the high end of the range the potential for a 4:1 uplift would deliver a maximum of up to 160 Grams (5 oz) per tonne based on the range set out above. The equipment selected will take the concentrate through to bullion and smelting allowing the company to sell either gold dorés or depending on the market at the time concentrate.

### **Talisman Deeps**

As part of the next step in development of the Talisman Deeps project the technical team is undertaking a scoping study which will investigate likely project economics as well as layout the body of work required to increase the level of confidence in the inferred mineral resources. This is being done as a separate body of work to the PFS and will include further work required to get to the deeper levels of the mine.

## Valuation

The company has engaged GEOS Mining to undertake a valuation of the company's project and resources at both Talisman, Talisman deeps and Rahu. This valuation will form the basis for an expected revaluation of the company's project assets which are currently valued in the accounts at the cost of capitalised exploration expenditure, which does not take into account the significant works on the Talisman mine including:-

- Completion of 2013 PFS
- Maiden Ore reserve
- Bulk sampling project and initial mine plan
- Upgraded resources and grades
- Updated PFS and scoping study
- Work undertaken to date at the mine
- Acquisition of Rahu from Newcrest

## Rahu

The transfer of the Rahu Exploration Permit (MEP60144) to NTL, through the wholly owned subsidiary Rahu Resources, is complete and the Company continues with a review of the Newcrest data in preparation for the upcoming drilling programme. Rahu is also being included as part of the valuation being undertaken currently on the company's projects.

## Corporate

As previously identified the company has been working on the potential for a separate exploration company via its 100% subsidiary Coromandel Gold Limited. During the quarter work commenced on bringing this to fruition which will provide shareholders with an opportunity to participate on a priority basis in a listed exploration company focussed on base metals and gold.

A number of potential projects have been reviewed during the quarter and discussions continue whilst work is being completed on the requirements and timing of a spin off.

During the period Mr Murray McKee retired from the board after 22 years of service to NTL a significant proportion of which was spent as Chairman. Murray was instrumental in the transition from explorer to developer and the board wishes Murray all the best in the future.

## Tenement Holdings

Project	Permit Number	Ownership
Talisman	MMP 51326	100% New Talisman Gold Mines Ltd
Rahu	MEP 60144	100% Rahu Resources Pty Ltd a 100% owned subsidiary of NTL

**Matthew Hill stated “We are now at the Mystery vein having rehabilitated the level 8 drive and completed sampling which confirmed previous samples taken at the Mystery vein as very high grade (+40g/t AuEq). The team are commencing the work required to open Dubbo. With metallurgical results showing very positive recoveries without the use of any hazardous chemicals we are now well along the path to commencing production of high grade concentrate and subsequently bullion in a very environmentally sustainable way. We will shortly import the equipment necessary to commence processing of the initial ore at Talisman which allows us to be self-sufficient in the metallurgical route taken for our ore.”**

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#### **Competent Persons Statement**

The information in this report that relates to exploration results, exploration targets and mineral resources is based on information compiled by or supervised by Mr Wayne Chowles. Mr Chowles is a Mining Engineer and member of the AusIMM. Mr Chowles is a full-time employee of New Talisman Gold Mines Limited, he has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”.

Mr Chowles consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

#### **About New Talisman Gold Mines Ltd**

New Talisman Gold is a dual listed (NZSX & ASX: NTL) with over 2250 shareholders who are mainly from Australia and New Zealand and has been listed since 1986. It is a leading New Zealand minerals development and exploration company with a mining permit encompassing the Talisman mine, one of New Zealand’s historically most productive gold mines. The company has commenced prospecting and upgrading activities at the mine, and advance the exploration project and increase its considerable global exploration target into JORC 2012 resources.

Its gold properties near Paeroa in the Hauraki District of New Zealand are a granted mining permit, including New Zealand’s highest-grade underground gold mine, a JORC 2012 compliant mineral resource of over 427,000 ounces AuEq at an average above 15 g/t AuEq and a JORC compliant reserve statement. The company owns 100% exploration permit Rahu, which lies along strike from the Talisman mine of which 80% was recently acquired from Newcrest Mining. The company will shortly commence exploration activities at Rahu.

#### **Statement of Compliance**

The information in this report which refers to estimates of Mineral Resources is extracted from the original market announcements of 12 July 2017, 25 July 2017 and 05 September 2017. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. The company confirms that the form and context in which the competent persons findings are presented have not been materially modified from the original market announcement.

Information in this report which refers to estimates of Ore Reserves is extracted from the original report titled “Ore Reserves Definition – Talisman Gold Project” which was released to the market on 07 August 2013 and is available on the company website. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. The company confirms that the form and context in which the competent persons findings are presented have not been materially modified from the original market announcement.

**Cautionary Statement for Public Release**

Certain information contained in this public release may be deemed “forward-looking” within the meaning of applicable securities laws. Forward-looking statements and information relate to future performance and reflect the Company’s expectations regarding execution of business strategy, business prospects and opportunities of New Talisman Gold Mines and its related subsidiaries. Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions or future events or performance are not statements of historical fact and may be forward-looking statements. Forward-looking statements are subject to a variety of risks and uncertainties which could cause actual events or results to differ materially from those expressed in the forward-looking statements and information. They include, among others, the accuracy of mineral reserve and resource estimates and related assumptions and inherent operating risks. There are no assurances the Company can fulfil forward-looking statements and information. Such forward-looking statements and information are only predictions based on current information available to management as of the date that such predictions are made; actual events or results may differ materially because of risks facing the Company, some of which are beyond the Company's control. Although the Company believes that any forward-looking statements and information contained in this press release is based on reasonable assumptions, readers cannot be assured that actual outcomes or results will be consistent with such statements. Accordingly, readers should not place undue reliance on forward-looking statements and information. The Company expressly disclaims any intention or obligation to update or revise any forward-looking statements and information, whether because of new information, events or otherwise, except as required by applicable securities laws. The information contained in this release is not investment or financial product advice.

**JORC CODE, 2012 EDITION – TABLE 1**

**Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse 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.</li> </ul>	<ul style="list-style-type: none"> <li>Channel samples were taken from the face of the reef drive. Channel widths were approx. 10cm and 2-3cm deep across the exposed vein and both hanging wall and footwall. Sample length was based on geology and ranged from 0.3m to 1.45m. Sample weight was generally 2.5kg and collected in bins by chipping out each sample by hand with cold chisels. The bins were cleaned between each sample to reduce chance of contamination.</li> <li>To ensure representivity, care was taken to ensure equal-mass extraction along the entire channel.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable to this release</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> </ul> <p>Measures taken to maximise sample recovery and ensure representative nature of the samples.</p> <ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable to this release</li> </ul>
Logging	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>Geological mapping, of structures, lithology and mineralization, was undertaken by experienced field geologists and senior geologists.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>studies.</i></p> <ul style="list-style-type: none"> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples were dried, crushed and rotary split at SGS Waihi to ensure representivity.</li> <li>• Samples were pulverized to 75 micron in an LM2 before subsampling for fire assay.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li>• <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• NTL used SGS in Waihi, a certified assay laboratory, using their standard sample preparation and analytical procedures and internal quality control procedures. All gold assays used a 30g charge fire assay with AAS finish and a detection limit of 0.01ppm. This is a total assay technique and considered appropriate.</li> <li>• SGS Waihi inserted blanks and certified standards, repeats of higher grade samples and screening to test pulverized sample met the size fraction requirements.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• SGS ran 2 repeat assays on any sample with more than 1.0g/t Au.</li> <li>• The blank sample came back below detection indicating no contamination and appropriate mill cleaning between samples.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>• <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• A levelling exercise was initially conducted in 8 Level for survey control with a datum established outside No8 Level.</li> <li>• All samples were surveyed to ensure proper XYZ control for</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<p>modelling purposes.</p> <ul style="list-style-type: none"> <li>• .Grid system used historically was Mt Eden Circuit.</li> <li>• NTL used NZMG(1949) and converted all earlier data to this grid system.</li> <li>• Topographic and survey control is considered adequate for the purpose that the data is being used.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The channel samples were taken across the Mystery Vein and comprised 3 channels. A 0.3m hanging wall channel, a 1.45m vein sample and a 0.35 footwall sample. Samples were taken specifically for grade control and are not intended to be included in the current MRE database</li> <li>• NA</li> <li>• NA</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sample was taken over the complete vein exposure to represent a production blast</li> <li>• NA</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples were collected by NTL personnel, packed in site and transported directly to the SGS Laboratory in Waihi.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• NA</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and</i>	<ul style="list-style-type: none"> <li>• <i>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,</i></li> </ul>	<ul style="list-style-type: none"> <li>• The mine area is wholly owned by New Talisman Gold Mines Limited under Minerals Mining Permit 51326 which was granted on 03 December 2009 for a term of 25 years and expires on 02 December</li> </ul>

Criteria	JORC Code explanation	Commentary
land tenure status	<p>historical sites, wilderness or national park and environmental settings.</p> <ul style="list-style-type: none"> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<p>2034. The permit area is 299.2 ha and lies within the Kaimai-Mamaku Forest Park which is Crown land administered by the Department of Conservation.</p> <ul style="list-style-type: none"> <li>The Company operates under an access arrangement with the Minister of Conservation with an authority to enter and operate.</li> <li>In addition, the Company holds a resource consent issued by the District Council to carry out bulk sampling of up to 20,000 m<sup>3</sup> per annum.</li> <li>Tenure is secure at time of reporting.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The Talisman permit area was held as a mining license by NZ Goldfields and predecessors from 1971 to 1992. During this time, they focused on small scale production from 8 level but also completed substantial surface and underground exploration in their own right. They had a number of joint venture partners during the term including, Homestake Mines, Cyprus Mines Corporation, ACM Minerals, and Waihi Gold. Cyprus Mines did the most extensive work driving around 300m further along 8 Level from historic workings and completing 51 drill holes. In 1991 NZ Goldfields went into voluntary liquidation and the mining license was bought by two former directors who formed a private company known as Southern Gold just prior to the mining license expiring.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Karangahake mineral deposit is a low-sulphidation epithermal gold silver vein system with an overall strike length of around 4km of which approx. 1.5km lies within the NTL mining permit. The deposit comprises several major veins, the most significant of which are the Maria Vein in which the Talisman Mine is developed and the Welcome-Crown Veins. Historic mining has exploited the deposit for around 1km along strike and up to 700m from surface outcrop to the deepest 16 level. Fluid inclusion studies suggest the current highest level of exposure has seen 300m of erosion from the paleosurface.</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> </ul> </li> </ul>	Not applicable to this release

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> <li>● 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.</li> </ul>	
Data aggregation methods	<ul style="list-style-type: none"> <li>● In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>● 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 and some typical examples of such aggregations should be shown in detail.</li> <li>● The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	Not applicable to this release
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>● These relationships are particularly important in the reporting of Exploration Results.</li> <li>● If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>● If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>● Not applicable to this release</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>● 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 drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>● Not applicable to this release</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>● 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.</li> </ul>	<ul style="list-style-type: none"> <li>● Not applicable to this release</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>● 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 deleterious or contaminating</li> </ul>	<ul style="list-style-type: none"> <li>● Not applicable to this release</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>substances.</i>	
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Further drill testing and channel sampling to increase the resource is planned. This will involve underground drilling and sampling drives during the bulk sampling programme. This will be part of the feasibility programme that has been initiated with mine support and infrastructure being established currently.</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Database integrity</i>	<ul style="list-style-type: none"> <li>• <i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i></li> <li>• <i>Data validation procedures used.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable to this release</li> </ul>
<i>Site visits</i>	<ul style="list-style-type: none"> <li>• <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></li> <li>• <i>If no site visits have been undertaken indicate why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Mr Chowles has been the General Manager of operations since 2012 and is the author of the reserves statements and prefeasibility studies. He is currently implementing the bulk sampling programme at the mine and is very familiar with all aspects of the project.</li> </ul>
<i>Geological interpretation</i>	<ul style="list-style-type: none"> <li>• <i>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</i></li> <li>• <i>Nature of the data used and of any assumptions made.</i></li> <li>• <i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></li> <li>• <i>The use of geology in guiding and controlling Mineral Resource estimation.</i></li> <li>• <i>The factors affecting continuity both of grade and geology.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not Applicable to this release</li> </ul>
<i>Dimensions</i>	<ul style="list-style-type: none"> <li>• <i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable to this release</li> </ul>
<i>Estimation and modelling</i>	<ul style="list-style-type: none"> <li>• <i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not Applicable to this release</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>techniques</i>	<p><i>method was chosen include a description of computer software and parameters used.</i></p> <ul style="list-style-type: none"> <li><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li> <li><i>The assumptions made regarding recovery of by-products.</i></li> <li><i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></li> <li><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li><i>Any assumptions behind modelling of selective mining units.</i></li> <li><i>Any assumptions about correlation between variables.</i></li> <li><i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li><i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li><i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	
<i>Moisture</i>	<ul style="list-style-type: none"> <li><i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not Applicable to this release</li> </ul>
<i>Cut-off parameters</i>	<ul style="list-style-type: none"> <li><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
<i>Mining factors or assumptions</i>	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>.Not Applicable to this release</li> </ul>
<i>Metallurgical factors or assumptions</i>	<ul style="list-style-type: none"> <li><i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions</i></li> </ul>	<ul style="list-style-type: none"> <li>Detailed metallurgical studies to date show that expected recoveries are likely to equal or exceed 94%.</li> <li>The deposit is typical of the low sulphidation deposits in the Waihi Gold District which are by and large amenable to direct cyanidation,</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></p>	<p>gravity separation of free gold and/or flotation concentrate cyanidation.</p> <ul style="list-style-type: none"> <li>• There is no evidence at this stage of any deleterious minerals that would impact on processing.</li> <li>• The testwork in this release serves to confirm these assumptions</li> </ul>
<p><i>Environmental factors or assumptions</i></p>	<ul style="list-style-type: none"> <li>• <i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The deposit lies on DOC land under MP51326 granted to New Talisman Gold Mines Ltd.</li> <li>• Consents for bulk sampling up to 20,000m<sup>3</sup>/annum have been granted for an initial 2 year period once bulk sampling commences.</li> <li>• The local authorities have consented small and large scale mining projects in the District over the last 25 years including NTL's Talisman project in 2013.</li> <li>• Provided the Company prepares sufficient environmental data to back up any development proposal it will be dealt with by the authorities on its merits.</li> </ul>
<p><i>Bulk density</i></p>	<ul style="list-style-type: none"> <li>• <i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></li> <li>• <i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i></li> <li>• <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<p>Not applicable to this release</p>
<p><i>Classification</i></p>	<ul style="list-style-type: none"> <li>• <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li>• <i>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></li> <li>• <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable to this release</li> </ul>
<p><i>Audits or reviews</i></p>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable to this release</li> </ul>

Criteria	JORC Code explanation	Commentary
<p><i>Discussion of relative accuracy/confidence</i></p>	<ul style="list-style-type: none"> <li>• <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></li> <li>• <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></li> <li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable to this release</li> </ul>