# Market Announcement

### For Immediate Release



## **Quarterly Activities Report to 30 June 2019**

**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-Executive Director Tony Haworth Independent Director Jane Bell Company Secretary Wayne Chowles Chief Operating Officer

**Capital Structure** Ordinary Shares at 31/07/2019

2 417m

#### **Share Price**

Share Price at 31/07/2019 (NZX) 0.7cps Share Price at 31/07/2019 (ASX) 0.8cps



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

**ACN** Address

541 Parnell Rd, Parnell, Auckland Phone +64 27 5557737

Website www.newtalisman.co.nz **Email** info@newtalisman.co.nz

**QUARTER HIGHLIGHTS** 

- Consent obtained for operation of pilot processing plant
- Plant commissioned metallurgical and testwork underway
- Successful capital raise of 1.73M
- First gold and concentrate produced from pilot plant
- Terra Firma proposal under review

The first quarter of the 2019 financial year was another successful one for the company which saw access being secured to the Dubbo rise and consenting and commissioning of the pilot gold processing plant.

With the commencement of the final stage of metallurgical testwork resources are focused on the processing of high grade ore to provide the necessary data for larger scale plant design.

During the quarter discussions advanced on a commercial proposal to treat Talisman ore. A formal term sheet has now been received by Terra Firma Limited and is currently under review by the board. An update will be provided to shareholders in due course.



Figure 1 – precious metals and other heavy minerals being separated from host rock



#### **TALISMAN MINE PROJECT**

The Diagram below shows the stages of development and evolution the mine has taken since Heritage commenced exploration activities through to mine development and planning.





### **Metallurgical Testwork Pilot Plant**

Commissioning of the pilot processing facility, following grant of resource consent in early July, is complete and processing of the high grade samples taken from the Talisman Mine has begun to produce a bullion and concentrate product.

The plant consists of a small crusher to reduce run of mine ore to 10mm which is then fed into a rod mill where it is ground to a fine powder to release the gold from the surrounding minerals. The ground ore is then fed through a high speed centrifuge which uses the effect of gravity to separate the heavier particles of gold and other metals from the lighter silica and produces a rough concentrate. The concentrate is then passed over a shaker table to further separate the metals.

This plant is a scale model of the envisaged commercial facility and seeks to replicate the output from testwork carried out in South Africa in early 2018 which indicated that adequate gold recovery can be achieved through a gravity only circuit and that the resultant tailings will be inert and can be disposed of in a number of ways without any environmental consequences. It is likely that these tailings will have a commercial value through use in industrial applications which will contribute towards the overall value of the project while at the same time relieving the company of the cost of disposal.

The components that make up the plant are functioning well, the mill is achieving the desired grind size and good separation of metals and gangue minerals through the concentrator and shaker table is being achieved. While much work remains on optimizing the performance of the plant and assessing whether target recovery rates will be achieved, this is a significant step for the company on the path of developing the Talisman Mine.

Testwork will concentrate on assessing a number of key factors associated with the gravity separation process, namely:

- Reliably achieving economically viable recovery of gold and silver;
- The effect of various grind sizes on the precious metal yield;
- Efficiently removing sulphide minerals from the ore to achieve an inert waste product suitable for industrial applications.

It is expected that the test phase will be completed by September 2019 and the output will provide data which will be sufficient to support requirements for a long-term facility while high grade batches of ore are processed through the pilot plant.





#### **Underground operations**

The quarter saw completion of the reopening of the BM37 rise in the Dubbo Zone. The Dubbo area has hosted some of the highest-grade gold found in NZ and was identified by borehole BM37 which assayed 656 g/t Au over 1.8m including 1154 g/t Au over 1.0m and was the location of the last mining activity to take place under the mines previous owners in the early 1990's.

Initial inspection of the area indicated that there had been a substantial fall of ground in the excavation at the end of BM37 crosscut, completely blocking access to the vein. A staged approach was adopted to making the area safe for human access. Stage 1 of this programme involved the construction of wooden and steel sets from the brow of the crosscut extending into the lower portion of the rise at approximately the elevation intersected by the BM37 borehole. This allowed the remaining rock to be removed from the base of the crosscut, which, in turn, provided access to the vein material exposed on the faces of the Northern and Southern drives.



Figure 2 the Brow of the Dubbo Rise showing fine material being loaded out





Figure 3 - Timber sets being constructed to reinforce the brow at the entrance to the Dubbo Rise

Removal of the material contained in the rise has revealed an excavation which will require a significant amount of work to make safe before any fresh material can be removed. Being able to inspect and analyse the geological and geotechnical setting provided the team with important information required to plan the extraction of the reserves in this area.

A number of options were identified and analysed with the option of proceeding with a short decline from the adjacent BM35 crosscut to access the Dubbo shoot approximately 7m below number 8 level proving to yield the shortest route to positive cashflow. The decline, which will be developed on vein where possible, aims to intersect a the high grade ore block which is estimated to average more than an ounce of gold per tonne. The Block is in the area intersected by borehole TM002, drilled by NTL in 2004, which averaged 85g/t and 117g/t Ag over a 1.0m intersection on the Maria vein( please see https://www.asx.com.au/asxpdf/20170712/pdf/43kl6294htcscp.pdf for further details). Bullion

generated from construction of this decline will contribute towards the cost of development and provide meaningful data on the geology of the area.

The decline will then be extended downwards in 7m lifts progressively exposing more of the ore body for sampling and delineation of



extractive blocks. The work completed during the bulk sampling phase creates a solid platform for the Company's full scale mine plans contemplated in the Prefeasibility Study.

Based on the current plan, at an average extraction rate of 300tpm, the company expects to be in a position to generate an approximated average of 360 gold equivalent ounces per month during the two-year bulk sampling programme.



### **Mystery Vein**

Infill sampling of the Mystery Vein was carried out in preparation for completion of an updated mineral resource estimate compliant with JORC 2012 reporting standards. The estimate which will inform further development and exploration of this vein system poses the most significant potential for mine expansion given the positive results achieved on proving the extension of high grade gold and silver mineralization.

The Mystery Vein was discovered in the 1980's and sits approximately mid-way between the historically productive Maria and Crown vein systems. It is believed that this vein had not been identified previously because of its location on the boundary between the two historic mining permits, although there is evidence that the vein may have been encountered in the lower levels of the Talisman Mine. The vein has been exposed over a strike length of some 50m and regular sampling carried out by New Talisman (then called Heritage Gold) identified samples on the face of Mystery with grades of up to 50 g/t. Recent check sampling of ore exposed at the drive face yielded grades of up to 40 g/t Au (please see <a href="https://www.asx.com.au/asxpdf/20180508/pdf/43tvlpmv420f4f.pdf">https://www.asx.com.au/asxpdf/20180508/pdf/43tvlpmv420f4f.pdf</a>.)

The Mystery vein shows similar geological characteristics to the adjacent veins and follows a similar north south strike direction, suggesting that this may be the same vein system worked at the historic Rhoderick Dhu Mine which is located roughly mid-way between the Talisman and Crown Mines around 100m below the current exposure on No 8 Level. Current activities at the Talisman prioritize enhancing the Company's understanding of the full extent of the vein given its potential to be a major contributor to mine life. Once the first leg of the Dubbo decline is complete and extraction of high grade ore has been established, blasting will recommence at the Mystery Vein establishing a secondary feedstock for the bulk sampling project and beyond.



Figure 4 - the face of the Mystery Drive showing the extension of the vein before sidewall waste is removed



### **Looking Ahead**

- Following the successful capital raising, the company's focus is on the completion of metallurgical testwork and verifying that the pilot plant can generate the desired precious metal recovery and other outputs. During this process the existing equipment will be evaluated and an assessment made of upgrades required to scale up the plant capacity while the design and procurement process for a larger plant is underway.
- During the current quarter the company advanced discussions with Terra Firma Mining Limited who have put forward a formal term sheet for the development of a commercial scale gold plant. The Term Sheet sets out the terms upon which Terra Firma would seek resource consent for and construct and operate a gold plant, subject to results of the metallurgical testwork and other data which is currently being obtained for the pilot plant. The Term sheet is currently being reviewed by the board and an update will be provided to shareholders shortly.
- Work continues on the resource consent application for full mining. It is expected that this application will be lodged in the next half year to allow sufficient time for processing to ensure continuity of the operation on completion of the bulk sampling programme.
- > The detailed planning and design work for the decline development into the Dubbo area will commence over the next quarter.
- As previously announced, while the pilot plant essentially completes the metallurgical testwork small batches of gold and concentrate will continue to be produced once the testwork has provided sufficient data on recoveries and other outputs. Samples of gold and concentrate produced from the pilot plant will be on display for shareholders at the AGM in September. Notice of meeting will be sent out in the coming weeks.
- > The company has received notification from the Department of Conservation that access to the Rahu permit area would unable to be granted due to lwi treaty settlement discussions. The board is reviewing its options with regard to Rahu.

#### **Tenements Held**

Rahu Resources - EP90144 100% New Talisman

Talisman Mine – MP51326 100% New Talisman Gold Mines Limited

#### **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 to 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 one of New Zealand's highest-grade underground gold mines, a JORC 2012 compliant mineral resource of over 469,000 ounces AuEq at an average above 15 g/t AuEq and a JORC compliant reserve statement. The Company owns 100% of the Rahu exploration permit, 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.