



MARCH 2017 QUARTERLY ACTIVITIES REPORT

Mantle Mining Corporation Limited (ASX: MNM, “Mantle” or “the Company”) provides the following update on its activities for the quarter ended 31 March 2017.

Highlights:

- **Completion of updated geological models for the Morning Star and Rose of Denmark Gold Mines;**
- **Structural reinterpretation and meticulous historical review of the near surface high-grade Stacpoole zone;**
- **Completion of a revised payment schedule for Morning Star Gold NL;**
- **A successful financing by private placement of \$1.35 million; and**
- **Subsequent to end of quarter, new CEO appointment of an experienced mining engineer and executive, with a strong track record in underground gold mining.**

Details:

- **The Company focused its attention on the Morning Star Gold Project, the Company’s highest priority, finalising a data compilation and updated geological model:**
 - First model which faithfully reproduces the detailed geometry of the high grade gold-bearing targets on the margins of the Morning Star dyke, not previously undertaken by prior operators of the mine,
 - Model allows detailed identification and mapping of the dyke “overhangs” which have long been identified to control the positions of the high grade gold shoots,
 - Detailed follow-up assessment of all of the main structures between surface and approximately 300 metres depth in order to identify target zones and assess the degree to which they have been tested,
 - Compilation and interpretation focused on the Stacpoole, Kenny’s and Burn’s high-grade gold zones, and
 - A summary video presentation relating to Mantle’s progress at Morning Star can be viewed at <http://mantlemining.com/projects/morning-star-gold/>.
- **A structural reinterpretation and meticulous historical review of the near surface high-grade Stacpoole zone in the Morning Star gold mine was completed, with the following results:**
 - Stacpoole is a thick, continuous reef with excellent indications of unmined high grade gold mineralization,
 - It is now confirmed as one of the thickest reefs in the Morning Star system, with a

- target zone of 450 metres long by 60 metres wide,
- This zone has seen little prospecting since 1900, as the shaft sunk in the 1930's did not cross the zone,
 - Every other vein of this thickness and areal extent in the mine has yielded substantial to exceptional high grade gold shoots after sufficient exploration,
 - Previous drillholes like MS357 (4.1 metres at 18.8 g/t gold including 0.3 metres at 216 g/t gold) as well as a number of other intercepts with visible gold, evidence the likely existence of high grade shoots in this near surface Stacpoole zone, and
 - Existing adit and surface access makes the Stacpoole zone amenable to cost-effective development preparation, and ultimately mining.

Mantle's geological team has identified the potential for additional discoveries from 2 level to the surface.

- **Significant progress at corporate level, with completion of a revised payment schedule for Morning Star Gold NL and a successful financing:**
 - Successful negotiation of a revised payment schedule for Morning Star Gold NL ('MCO') and Mantle with Chillee Limited ('Chillee') the prior ranking secured creditor of MCO. This revised schedule replaces the \$2 million that fell due on 28 February 2017, and
 - New funding in place following completion of a private placement of \$1.35 million, with fund to be used to assist in funding the above-mentioned payment schedule and to advance development activities at the Morning Star Gold Project.
- **Subsequent to the end of the quarter the company announced further important corporate developments:**
 - The Board welcomed the appointment of Tammo (Tom) De Vries as Chief Executive Officer of the Company,
 - Tom is an experienced mining engineer and executive, with a track record in underground gold mining and in the commencement and operation of small, medium and large scale mines,
 - Tom will lead the Company as it focuses on the commencement of drilling and development activities at the Company's high-grade underground Morning Star gold mine, and
 - Dr Rick Valenta will transition to a Non-Executive Director and continue as a consulting geologist to the Company.
- **Norton Gold Mine development activities were confined to completion of gold processing studies and advancement of permitting;**
 - Currently reviewing a number of competitive offers for Mantle's non-core projects including Norton, Granite Castle and Charters Towers.

Morning Star Gold Mine Development:

A near term priority work program for the Morning Star Gold Mine will focus on underground drilling aimed at shedding further light on the position and geometry of potential high grade shoots on the Stacpoole zone, which can be accessed from the Morning Star adit at relatively low refurbishment cost:

- The northern half of the Morning Star adit lies immediately above the interpreted high grade target zone of the Stacpoole reef, which should allow the zone to be drilled with a series of relatively sort underground drillholes,
- Drilling is expected to commence in the June quarter, following minor refurbishment work on the adit, and
- Should the drilling be successful, subsequent work would include a program of underground exploration development and sampling on the Stacpoole Zone.

Planning and discussions will also continue regarding additional work at the Rose of Denmark, in cooperation with the JV partner.

Mantle's CEO, Tom De Vries, commented, "Mantle is now funded to begin a program of underground exploration which marks the first step on the way to a decision point regarding the reopening of the Morning Star Gold Mine. We are looking forward to the upcoming drill program on the Stacpoole Zone, as well as the continued advancement of other aspects of the project".

Cash Position & Use of Funds:

As at 31 March 2017, the Group had a cash balance of \$295,000 as outlined in this quarter's Appendix 5B.

In addition to the cash balance at 31 March 2017, the Company has received, or is due to receive, a further \$1,170,000 in subscription monies from investors who participated in the Company's recent capital raisings.

The Company continues to monitor and minimise administrative expenditure and will focus exploration expenditure on the upcoming adit refurbishment and underground drill program on the Stacpoole Zone.

For further information, please contact:

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Competent Persons Statement:

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Dr Richard Valenta, Executive Director of Mantle Mining Corporation Ltd. Dr Valenta is a Fellow of the Australasian Institute of Mining and Metallurgy and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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”. Dr Valenta consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mantle’s Projects and Tenements:

Figure 3: Mantle’s Project Locations.



Table 1: Mantle's Tenement Schedule.

Tenement	Project	Name	Grant Date	Expiry Date	Area	Interest (%)
MIN 5009 ²	Morning Star	Morning Star	21/09/1990	Renewal	657 Ha	95
EL 4320 ²	Morning Star	Morning Star	16/11/2008	Renewal	101 km ²	95
MIN 5299 ²	Morning Star	Rose of Denmark	10/11/1981	Renewal	211 Ha	47
MIN 5560 ²	Morning Star	Wallaby	17/12/2013	16/12/2018	10 Ha	95
EL 6321	Morning Star	Morning Star	Application		547 km ²	95
ML 80035 ¹	Norton	Norton	04/04/1996	30/04/2017	22 Ha	90
EPM 14388	Charters Towers	Charters Towers	24/02/2005	23/02/2020	7 sub blocks	100
EPM 14179	Granite Castle	Range Creek	25/11/2004	24/11/2017	6 sub blocks	100
EPM 15527	Granite Castle	Oaky Creek	30/11/2007	29/11/2019	25 sub blocks	100
MDL 2005	Granite Castle	Range Creek	application		1,935 Ha	100
EL 6074	Lionsville	Lionsville	06/05/2003	Renewal	4 units	100
EL 5878	Black Range	Overflow	24/07/2001	Renewal	3 units	13

^{1.} Norton is 10% held by Avanti Mining and Contracting Pty Ltd.

^{2.} Morning Star is 100% held by Morning Star Gold NL, in turn held 95% by Mantle. MIN 5299 is a Joint Venture wherein Morning Star Gold NL holds 49%.

Mantle's Mineral Resources:

Table 2: Morning Star Mineral Resource (95% held by Mantle).

For information on the existing resource, please refer to the report entitled "910,000 Ounces Gold JORC Resource" created on 30 July 2008, which is available to view at www.asx.com.au under ASX code MCO.

Table 3: Norton Mineral Resource (90% held by Mantle).

Class	Tonnes	Au (g/t)	Au (oz)	Ag (g/t)	Ag (oz)
Indicated	107,000	6.2	21,100	15	50,300
Inferred	141,000	3.9	17,700	12	52,600
Total	248,000	4.9	38,800	13	103,000

The information in Table 3 is extracted from the report entitled "Norton Gold Mine Resource Estimate" created on 15 May 2015 and is available to view on www.mantlemining.com

Table 4: Granite Castle Mineral Resource.

Class	Tonnes	Au (g/t)	Au (oz)	Ag (g/t)	Ag (oz)
Measured	111,000	4.3	15,500	58	205,800
Indicated	250,000	3.6	28,800	71	567,900
Inferred	403,000	2.5	32,900	56	727,200
Total	765,000	3.1	77,200	61	1,500,900

The information in Table 4 is extracted from the report entitled "Improved Confidence Levels for Granite Castle Resource" created on 28 May 2008 and is available to view on www.mantlemining.com

Table 5: Charters Towers Mineral Resource.

Class	Tonnes	Au (g/t)	Au (oz)		
Inferred	1,535,000	2.2	109,000		
Total	1,535,000	2.2	109,000		

The information in Table 5 is extracted from the report entitled "Disclosure Document" created on 2 October 2006 and is available to view on www.mantlemining.com

In relation to Tables 3 through 5, 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, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.