RESOURCE GROWTH DRILLING AT DYNASTY GOLD PROJECT

Key Highlights

- Resource growth drilling commenced at Papayal prospect, with 24 holes planned for 2,650 metres
- Drilling designed to target high-grade (average 4.5 g/t Au) extensions to the Papayal gold-silver system, following recent expansion of the epithermal gold footprint well beyond existing resources
- Resource growth drilling continues to advance at the Cerro Verde prospect with a further 7 holes completed and awaiting results.

Titan's CEO Melanie Leighton commented:

"We are excited to have commenced resource growth in the north of the Dynasty Project at the Papayal Prospect. We will have one diamond rig in operation at Papayal and a second rig at the Cerro Verde Prospect area in the South of the Dynasty Project.

"This is only the second drilling campaign that the Company has directed towards Papayal. A modest drilling campaign completed in 2021 demonstrated the high-grade nature of mineralisation at Papayal, and current resource grades for the prospect are 4.5 g/t Au and 50 g/t Ag (reported > 0.5 g/t Au).

"Drilling is aimed at defining additional high-grade, high-margin ounces, with a focus on identifying shallow mineralisation to add to the existing resource inventory of 3.1Moz gold and 22Moz silver.

"We continue to advance mapping and surface geochemical work programs across the broader Dynasty Project area and continue to identify new areas of mineralisation that expand the overall scope of the Project."



Drill rig at Cerro Verde prospect, October 2023



Resource Growth Drilling Commenced at Dynasty

Titan Minerals Limited (**Titan** or the **Company**) (**ASX:TTM**) is pleased to announce that drilling has commenced at the Papayal prospect, at the Company's 100% held Dynasty Gold Project (**Dynasty**) in southern Ecuador.

The Papayal prospect represents a high-grade part of the Dynasty 9 kilometre epithermal corridor, which until now has been sparsely drill tested, hence representing a high priority area for resource growth.

The proposed resource growth drilling comprises 24 holes for 2,650 metres. Drilling has been designed to target high-grade, high margin gold resource growth, following recent mapping and surface geochemical sampling which was successful in expanding the epithermal gold vein footprint well beyond existing defined resources at Papayal.

Existing Mineral Resources at Papayal comprise 0.9Mt @ 4.54 g/t Au, 50.85 g/t Ag for a contained 0.13 Moz gold, 1.43 Moz silver.

A second drill rig is currently in operation at the Cerro Verde prospect. To date, 7 diamond drillholes for 787 metres have been completed, with three holes remaining for the 2023 resource growth drilling. Results for these holes are pending, however the Company is encouraged by visual observations which indicate the potential for multiple mineralised veins. Once drilling is completed at Cerro Verde, the rig will mobilise to Papayal.

The Company anticipates that the Cerro Verde and Papayal drilling campaigns will be completed by year end, and a resource update is planned for Q1 2024 following receipt of all results.

The Company looks forward to providing further updates as results are received.

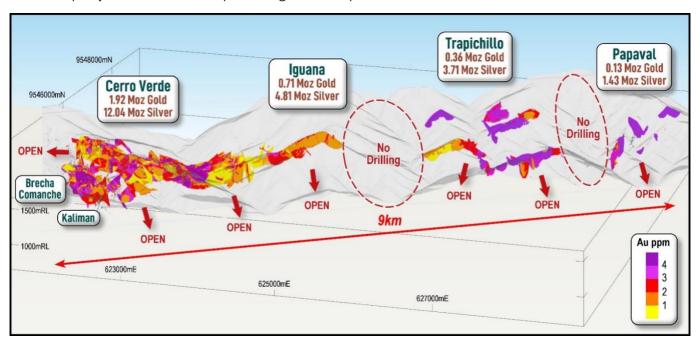


Figure 1. Oblique view looking north displaying Dynasty Mineral Resources \geq 0.5 g/t Au

ASX ANNOUNCEMENT

1 November 2023



About the Dynasty Gold Project

The Dynasty Gold Project is an advanced stage exploration project comprising five contiguous concessions and is 139km2 in area. Three of these concessions received Environmental Authorisation in 2016 and are fully permitted for all exploration activities.

Exploration works at the Dynasty Gold Project have outlined an extensive zone of epithermal veining over a nine kilometres strike and over one kilometre in width. There is also considerable potential for porphyry gold, silver and copper mineralisation as identified by surface mapping, trenching and drilling at the Kaliman Porphyry prospect.

Titan published a JORC Compliant Mineral Resource Estimate (MRE) for the Dynasty Project on 6 July 2023. The 3.12 million ounce gold and 21.98 million ounce silver resource is hosted within a 9 kilometre long by 2 kilometre wide corridor of epithermal gold and silver vein hosted mineralisation, of intermediate sulphidation type.

The Dynasty MRE includes the Cerro Verde, Iguana, Papayal and Trapichillo prospects (refer to Figure 1), with clear potential for the resource to grow significantly, with the majority of resource remaining open, and in many areas only sparsely drilled. The epithermal gold-silver system remains largely untested below a depth of approximately 200 metres.

Completion of the MRE represents a fantastic milestone for the Company and a significant derisking for the Dynasty project, with preliminary optimisation studies indicating robust economics, and the resource having potential to underpin an open pit followed by underground mining scenario.

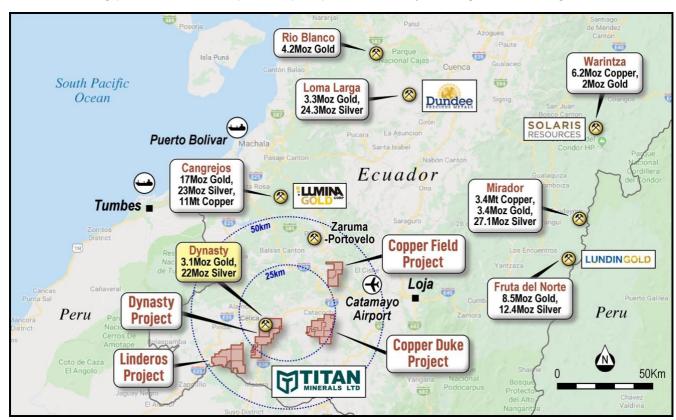


Figure 2. Titan Minerals southern Ecuador Projects, peer deposits and surrounding infrastructure

ASX ANNOUNCEMENT

1 November 2023



ENDS-

Released with the authority of the Board.

For further information on the company and our projects, please visit: www.titanminerals.com.au

Contact details:

Investor Relations: Australia

Melanie Leighton - Chief Executive Officer

E: melanie@titanminerals.com.au

Ph: +61 8 6375 2700

Investor Relations: Australia

Matthew Carr – Executive Director E: matthew.carr@titanminerals.com.au

Ph: +61 8 6375 2700

ASX ANNOUNCEMENT

1 November 2023



Competent Person's Statements

The information in this report that relates to Exploration Results is based on and fairly represents information compiled by Ms Melanie Leighton, who is an experienced geologist and a Member of The Australian Institute of Geoscientists. Ms Leighton is a full-time employee at Titan Minerals and has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined in the JORC 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources, and Ore Reserves'. Ms Leighton consents to their inclusion in the report of the matters based on this information in the form and context in which it appears.

With respect to estimates of Mineral Resources, announced on 6 July 2023, (MRE Announcement) the Company confirms that it is not aware of any new information or data that materially effects the information in the MRE Announcement and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

Forward-looking Statements

This announcement may contain "forward-looking statements" and "forward-looking information", including statements and forecasts. Often, but not always, forward-looking information can be identified by the use of words such as "plans", "expects", "is expected", "is expecting", "budget", 'outlook", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "believes", or variations (including negative variations) of such words and phrases, or state that certain actions, events or results "may", "could", "would", "might", or "will" be taken, occur or be achieved. Such information is based on assumptions and judgments of Titan's directors and management regarding future events and results.

The purpose of forward-looking information is to provide the audience with information about Titan's expectations and plans. Readers are cautioned that forward-looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Titan and/or its subsidiaries to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information. Forward-looking information and statements are based on the reasonable assumptions, estimates, analysis and opinions of Titan directors and management made in light of their experience and their perception of trends, current conditions and expected developments, as well as other factors that Titan directors and management believe to be relevant and reasonable in the circumstances at the date such statements are made, but which may prove to be incorrect. Titan believes that the assumptions and expectations reflected in such forward-looking statements and information are reasonable.

Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used. Titan does not undertake to update any forward-looking information or statements, except in accordance with applicable securities law.