

Titan Progress at Dynasty and Copper Duke Projects

Highlights

- Dynasty Project diamond drilling programme increased from 6,000m to 12,000m
- Drilling completed at the Iguana prospect and commenced at the Papayal prospect with assays expected shortly
- Extensions to mineralisation identified at depth and along strike
- Consulting group engaged to deliver JORC Compliant Resource at Dynasty Project
- Aerial geophysical survey results for Dynasty and Copper Duke Projects received with interpretation underway to assist in unlocking Copper Duke's large-scale potential
- Upcoming results to guide follow-up exploration of highly prospective geochemical anomalies across Copper Duke Project
- Rewarding results achieved by Titan's Community and Social Relations team in Ecuador
- Divestment of non-core assets progressing with funds to go towards funding the expanded exploration programme

Titan Minerals Limited (ASX: TTM) ("Titan" or the "Company") is pleased to provide an operational update regarding its exploration activities in Ecuador. The ongoing diamond drill programme is focused on defining a higher resolution geologic model to support 3D modelling and geostatistical estimation of resources in accordance with principals of the JORC Code.

Titan's drill programme has been increased from 6,000m to 12,000m to accommodate for additional deeper drilling on mineralisation confirmed with depth in drilling results announced to date at Cerro Verde. Additional drill holes are also being allocated for initial drill tests of multiple high-grade gold veins defined in previous trench results.

Commenting on progress at Dynasty and Copper Duke, Titan Minerals Managing Director, Laurie Marsland said:

"We appreciate our team's dedication and hard work, and having completed approximately 5,000m of drilling to date, are pleased with the progress they have made. The campaign started at the Iguana prospect, where drilling to date has delivered high confidence oriented core associated with mineralised intercepts within the footprint of the existing foreign resource area. Also, potential extension of mineralisation at both depth and along strike has been identified.

Since commencement of the drill campaign, the turn-around of assay results has been slower than normal, due to a combination of COVID-19 related issues, combined with an industry wide escalation of assay work. As a result, we have extended the diamond drill programme through the first quarter of 2021. The additional information collected while awaiting assay results will bolster our strategy to confirm and expand Dynasty's current foreign resource estimate of 2.1M oz at 4.5g/tonne."

Dynasty Confirmatory Exploration Programme Update

The Company continues to progress with its confirmatory drilling at the Dynasty Gold Project in southern Ecuador and has completed over 5,200m of drilling at the Iguana and Papayal Prospects, with eighty percent of holes drilled now submitted for analyses. To date, all drilling at Iguana has consistently intersected multiple fault structures with quartz vein fill associated with favourable alteration and sulphide mineralisation, and oriented core is successful in confirming

interpreted geometry of the mineralized structures. Confirmatory drilling has been completed over 700m of strike within the 2km long outcropping vein corridor at Iguana, which is situated in the central portion of the 9km long mineralized corridor of the Dynasty Gold Project.

Geological modeling of the vein zones is progressing in anticipation of assay results being received over the coming month. The combination of the COVID-19 crisis and the workload currently being experienced at the laboratory has extended the turnaround time for results. Drill results from Iguana are pending and will be released to the market once received.

Dynasty JORC Compliant Resource

Independent consulting group, Mining Plus, has been engaged to deliver the Dynasty JORC Compliant Resource. Mining Plus is a global mining services provider specialising in geology, mining engineering and geotechnical engineering across open pit and underground projects.

Having already completed a site visit and review of historical datasets, this quarter Mining Plus has commenced an intermediate scope of work to review current datasets confirming that ongoing data acquisition is to a JORC standard. The review and compilation of information required for JORC Table 1 reporting requirements will help to expedite the reporting of resource estimation results in the next quarter for the conversion of the existing foreign mineral resources estimate to a JORC compliant standard.

As a result of the late start-up to the field season, extended laboratory turn-around times and various delays to drilling resulting from the National Emergency in Ecuador declared in response to the COVID-19 pandemic, the planned JORC compliant resource estimate is currently anticipated to be completed by the end of Q1 2021 and will incorporate results from the expanded confirmation drilling programme.

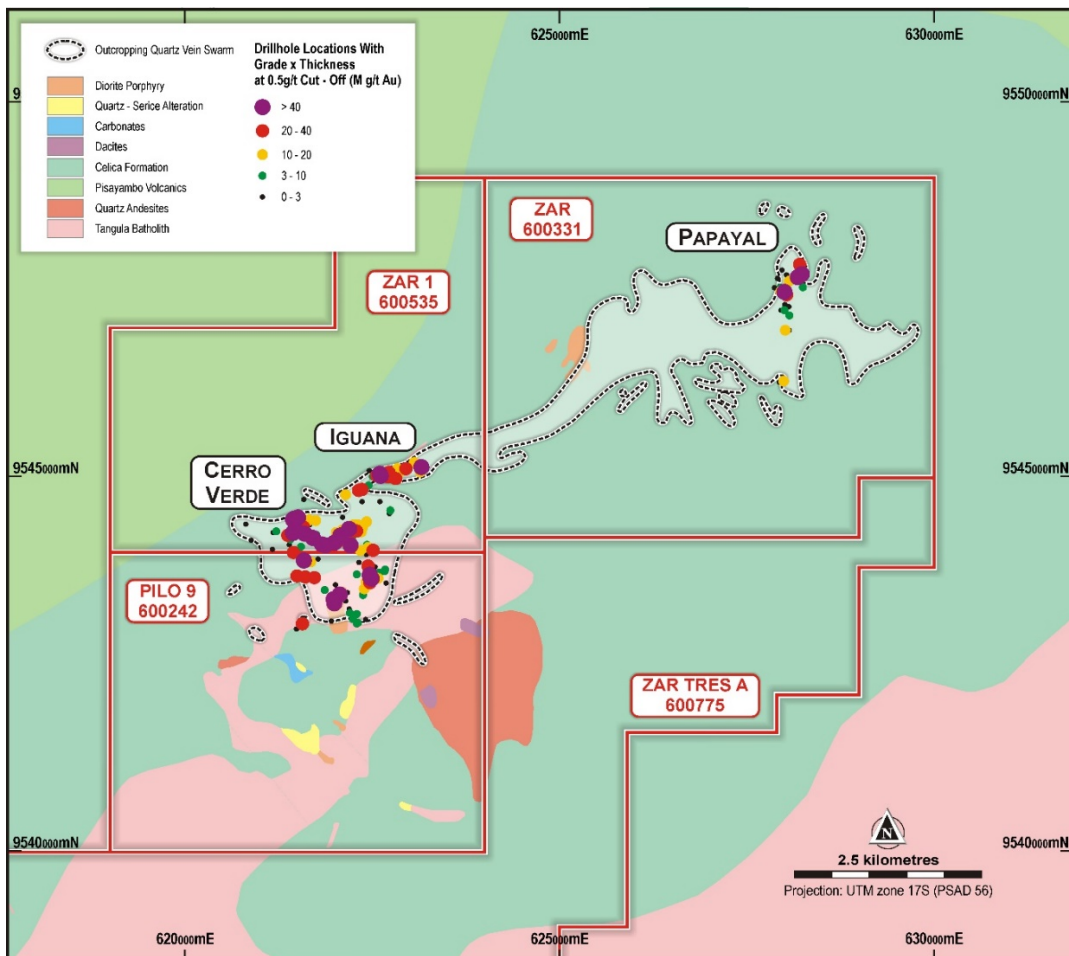


Figure 1 | Prospect Locations within the Dynasty Project with drill locations for reported assay results (refer to ASX releases dated 19 May and 14 July 2020)

Geophysics

The aerial geophysical survey over Dynasty and Copper Duke (refer to ASX release dated 21 October 2020) was completed on 100m line spacing across both project areas for an aggregate 195km² survey coverage. Data processing is now complete for both magnetic and radiometric datasets acquired, and an initial phase of data review and interpretation is underway. Subsequent interpretation and ground truthing work is planned throughout December and January. At Dynasty, Titan believes the geophysical results will identify multiple anomalies anticipated to relate to major structural features in the 9km long corridor of vein hosted mineralisation, enhancing the regional geological interpretation of the district. At Copper Duke, the results are anticipated to unlock its large-scale potential and identify areas of mineralisation.

Copper Duke

Systematic exploration at Copper Duke has continued with field sampling and road cut channel sampling activity at the El Huato Prospect. The channel sampling is follow-up to the ongoing iterative geophysics interpretation work at Copper Duke and is planned to continue. Over 120 samples currently pending analysis and additional field sampling is underway.

Reviewing the geophysics in conjunction with surface exploration completed to date will enable prioritisation of follow-up exploration of the highly prospective geochemical anomalies across the 130km² Copper Duke concession area.

The data gathered from both surveys will be used to complete various geophysical interpretations, all of which will broaden our understanding of Copper Duke and assist in developing drill targets and designing drill holes for the drill programme planned for H2 2021. Including follow up drilling for the two diamond drill holes that were partially assayed by the United Nations in 1978. The historical drilling returned results of 33.1m @ 2.5g/t gold from 9m drill depth, and 45.4m @ 1.9g/t gold from surface (refer to ASX release dated 25 May 2020).

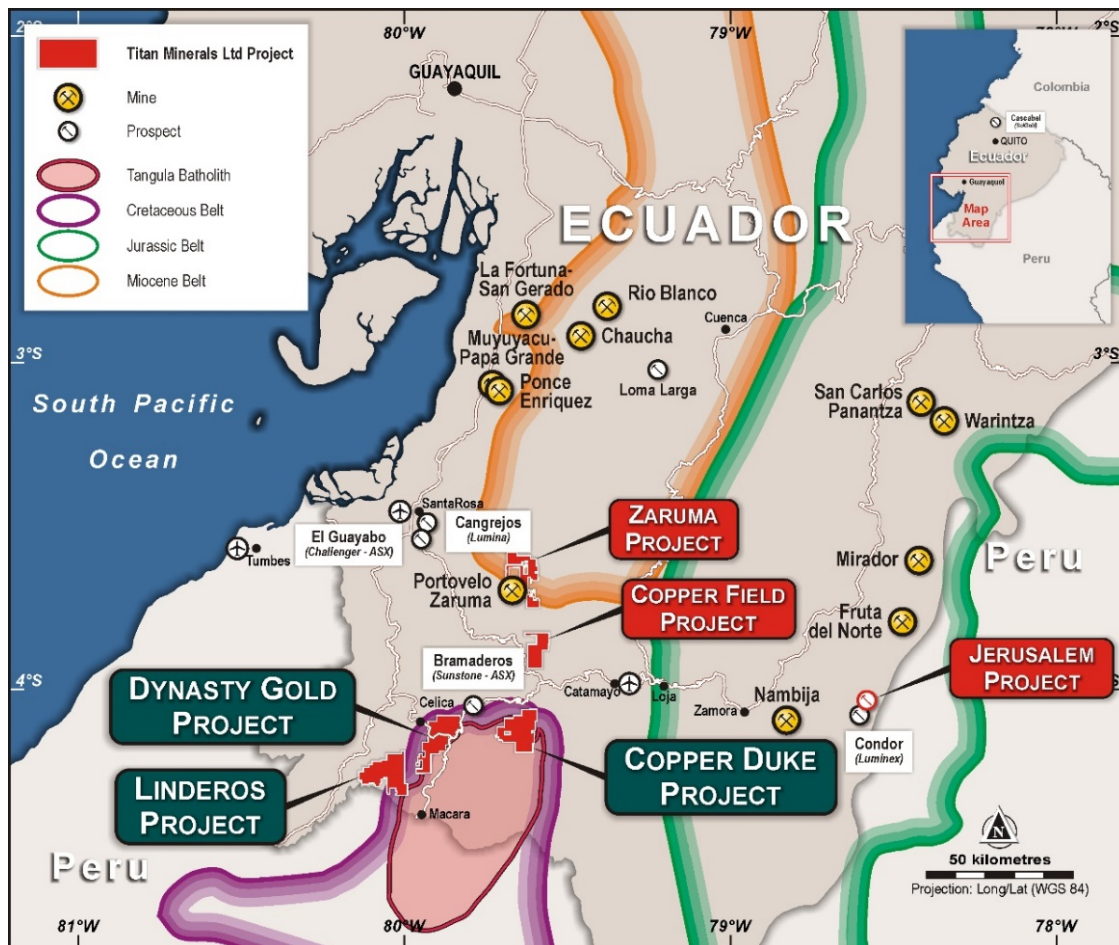


Figure 2 | Titan Project locations in with surrounding major projects and litho-tectonic framework of the Andean Terrane of southern Ecuador

Community and Social Relations

Titan has spent time and resources building relationships with all Ecuadorian stakeholders. Titan will continue to conduct its activities with integrity and respect for the Ecuadorian people, so that all can benefit from Titan's presence in Ecuador.

Rewarding results are being achieved by Titan's Community and Social Relations team. Relationships with key stakeholders throughout the Dynasty and Copper Duke Project areas are being developed. Agreements for land access, environmental stewardship, and mutually beneficial economic development of areas in proximity to the Project are being developed. Titan's team follows international guidelines of transparency with equal and fair treatment of everyone. Titan is respectfully engaging with the community, has established an ongoing dialogue and is grateful for the support the community is providing.

Divestment of non-core assets

Titan is in the process of selling its non-core assets, the Zaruma Mine and the Portovelo Mill, which has commenced with completion of an information memorandum that has been supplied to interested parties under an NDA. It is anticipated that an agreement can be concluded in Q1 2021. Proceeds from these divestments will go toward funding the expanded exploration programme.

Post suspension of mining operations at Dynasty earlier this year due to COVID-19, the Portovelo mill was placed on care and maintenance.

Titan has also received unsolicited interest for the Jerusalem concession. Jerusalem was returned to the company in September this year and has a foreign resource of 1.28Moz gold averaging 14.5 g/t and 8.6Moz silver at 98g/t. Titan will continue discussion with interested groups but is excited by the projects high-grade and plans to gain a better understanding of its upside potential.

COVID-19 Update

During the reported exploration activity, the company experienced one outbreak of COVID-19 that was suspected to be related to community transmission outside of the work area. The outbreak was identified early through a combination of the company's daily temperature monitoring activities and regular testing for COVID-19. Monitoring programmes for COVID-19 are ongoing, and no transmissions in the work environment have been identified. The company has no reported COVID-19 infections in the past 60 days.

Other than a delay to commencing drilling activities while, as required by the Ecuadorian Government, Titan developed its COVID-19 policy and procedures which were communicated to key stakeholders, there have been no material delays to operations or activities in the current quarter.

COVID-19 related issues continue to impact receipt of exploration results in a number of other ways, including, reliance on upstream and downstream vendors, shipping and delivery delays, COVID-19 related curfews impacting assay laboratory operating hours resulting in extended turn-around times for assay results, an industry wide problem.

-ENDS-

Released with the authority of the Board.

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

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Notes to Mineral Resource

The information in this document relating to Mineral Resource Estimates for the Dynasty Gold Project have been extracted from the ASX announcement dated 30 April 2020 (Initial Announcement).

Titan confirms that it is not in possession of any new information or data that materially impacts on the reliability of the Mineral Resource Estimates for the Dynasty Gold Project and included in the Initial Announcement. Titan confirms that the supporting information provided in the Initial Announcement continues to apply and has not materially changed.

The information in this announcement relating to Mineral Resource Estimates for the Dynasty Gold Project is a foreign estimate and is not reported in accordance with the JORC Code. A competent person has not done sufficient work to classify this foreign estimate as a mineral resource in accordance with the JORC Code and it is uncertain that following further exploration work that this foreign estimate will be able to be reported as a mineral resource in accordance with the JORC Code.

Competent Person's Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Travis Schwertfeger, who is a Member of The Australian Institute of Geoscientists. Mr Schwertfeger is the Chief Geologist for the Company and has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he 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'. Mr Schwertfeger consents to their inclusion in the report of the matters based on his information in the form and context in which it appears.