



### Corporate Structure

Issued Shares: 1.41 billion  
 Issued Options: 87.6 million  
 Share Price: A\$0.10  
 Market Cap: A\$141m  
 (28/01/2022)



Titan Minerals Ltd (ASX:TTM) is an explorer and developer of the rich cordilleras of the Andes in Southern Ecuador.

Titan's main projects are rich in porphyry copper, gold and silver mineralisation and range from early-stage exploration to advanced pre-development status.

They include:

- 1) Dynasty Gold Project
- 2) Copper Duke Project
- 3) Linderos Project
- 4) Jerusalem Project



### Board of Directors

Peter G Cook – *Non-exec Chairman*  
 Laurie Marsland – *Managing Director*  
 Matthew Carr – *Executive Director*  
 Nicholas Rowley – *Non-exec Director*  
 Barry Bourne – *Non-exec. Director*  
 Zane Lewis – *Company Secretary*



### Key Management

Mike Skead – *Executive Vice President Exploration*  
 Pablo Morelli – *Exploration Manager*

## December 2021 – Quarterly Activities Report

### HIGHLIGHTS

#### Corporate

- Titan Minerals finished the December 2021 quarter with US\$17,350,000 (A\$24,600,000) in cash, cash receivables and investments to spend on the 2022 exploration programme
- During October, Titan completed an AUD\$18 million private placement at the market price, with strong support from Domestic and International institutional investors and retired US\$3.25m of debt and liabilities
- Debt was converted into equity and paid down by the Titan Minerals board, further strengthening the Company's balance sheet, and in a show of confidence Canaccord (Australia) accepted fees from the placement in Titan Minerals shares
- Titan Minerals also welcomed the highly experienced Barry Bourne to the board as Technical Director, complementing the recent additions of Peter Cook and Michael Skead to the Titan Minerals team

#### Dynasty

- Titan Minerals continue to expand upon the substantial discoveries made thus far at the Dynasty Gold Project
- Titan successfully drilled the deepest mineralised hole at Dynasty. Assays returned excellent high-grade gold and silver results, (*assays pending*):
  - 102.7m @ 1.44g/t gold from 46.5m depth to end of assays received to date for drill hole CVD072 (*results past 149.2m depth pending assay*)
    - including 43.06m @ 2.56g/t gold with 6.9g/t silver from 84.94m
    - including 14.14m @ 6.42g/t gold with 16g/t silver from 87.09m
  - 1.98m @ 51.2g/t gold with 9.1g/t silver from 135.5m in CVD073
  - 7.27m @ 9.89g/t gold with 28g/t silver from 118.78m in CVD033
  - 6.75m @ 6.74g/t gold with 82g/t silver from 53.83m
    - within, 18.1m @ 3.83g/t gold with 50g/t silver and,
    - 4.39m @ 3.63g/t gold with 35g/t silver from 73.05m in CVD039

#### Linderos

- Surface exploration results show high grade results across Meseta Gold Project and the Copper Ridge Prospect
- Several geological features indicate an intermediate to high-sulphidation gold system (Meseta) resting on a copper porphyry system (Copper Ridge)
- Assays received to date from the first 144 rock chips of 227 samples shipped for assay in the current mapping campaign, at **Meseta Gold Prospect** returned best results of:
  - 64g/t gold with >1,500g/t silver (overlimit silver analysis pending) and 26.9g/t gold with 715g/t silver from exposed veins located 500m east of the closest previous drill hole
  - 61g/t gold with 103g/t silver and 42g/t gold with 9g/t silver located on current western margin of Meseta Gold Prospect
  - 13g/t gold with 16g/t silver and 7.3g/t gold with 11g/t silver on veining discovered 2.3km southeast of Meseta Gold Prospect

- At the **Copper Ridge Prospect** channel and rock chip sampling defined a pervasive area with significantly higher tenor of copper mineralisation in argillic alteration
- Indicates the outcropping porphyry copper body is high in the system allowing scope for higher grades at depth
- Zone of outcropping quartz stockwork and altered porphyritic granodiorite averaged better than 0.2% copper over 360m wide channel sampling
- Assay results for the first 28 of 47 channel samples returned highly anomalous copper and gold results

#### Copper Duke

- First drilling campaign commenced at Copper Duke targeting the El Hauto Prospect (assays pending)
- Drilling campaign is designed to validate Geochem results, airborne magnetic anomalies and drilling results conducted by the United Nations in 1978
- Drill results will assist with the planning of future exploration programmes and signals a long-awaited start to serious exploration at Copper Duke

#### Titan Minerals Managing Director, Laurie Marsland said:

*"We are all very excited about the potential this package of assets has to offer and on the back of excellent exploration results in 2021, are looking forward to delineating the true potential of these projects during 2022. The addition of two highly regarded exploration geologists to our team on the ground in Ecuador has significantly strengthened our capability to deliver the results expected by our shareholders."*

*"Our primary focus will be to comprehensively understand and define the full extent of the mineralised system at Dynasty to verify and grow the resource. Once results of the airborne geophysics programme flown at Linderos are available, we will plan and execute an initial drill programme to test the epithermal gold system and potentially large porphyry system. At Copper Duke we will continue initial exploration with the aim of initiating a drill programme in the second half of the year."*

*"Our relationship with the communities in which we work are critical to our business and overall, we enjoy excellence working relationships. We have achieved this by respecting the individual, being transparent, treating everyone equally and fairly and making the effort to ensure that our project expenditure within the communities in which we operate benefits as many people as possible. We look for opportunities to support community base projects, small business owners and where possible, local entrepreneurs. Social license takes time to develop and requires building trust."*

*"Due to legacy issues, it has taken time to access some areas where we need to conduct exploration activities. By adhering to the principals I have outlined, we will continue to reach a fair and equitable agreement and establish a long-term working relationship with communities in those areas, as we look to further develop and explore the Titan Minerals' portfolio."*

## Activities Update

During the quarter work continued on the Dynasty Gold Project where at Cerro Verde 33 diamond holes were completed taking the total to date to 100 holes completed for 20,757m drilled. During the quarter, assays were received for 55 holes for a total of 73 holes for the programme.

In December, Titan commenced an inaugural round of reconnaissance drilling at the Copper Duke project (ASX Announcement 13 December 2021). One of the four rigs drilling at Dynasty was moved to Copper Duke to complete two holes for a planned 540m campaign before the wet season curtails access in this drill season.

The two main objectives of this programme were validation of drill hole results from historical drill holes completed in 1978 as follow-up work to a U.N. survey and to drill a sub-parallel trend of magnetic anomalies associated with relatively higher gold grades and increasing vein density noted in surface mapping and sampling to the southeast in the El Huato target.

Work continued at the Linderos Project. The exploration programme is focused on advancing the Meseta Gold Prospect and the Copper Ridge Prospect located adjacent to one another.

Results show that the gold system at Meseta is clearly far more extensive than defined to date and the Company remains excited about the project's potential. Further work is planned to assess and rank potential gold targets within Linderos.

## Dynasty Gold Project (100%)

The Dynasty Gold Project is an advanced stage exploration project comprising five (5) contiguous titles and 139km<sup>2</sup> in area. Three (3) of these concessions received Environmental Authorisation in 2016 and are fully permitted for exploration and small-scale mining.

Exploration works at the Dynasty Gold Project have outlined an extensive zone of epithermal veining over a nine (9) kilometres strike and over one (1) kilometre in width.

Previous explorers had estimated a Canadian NI 43-101 resource estimate (referred to as a Foreign Resource) of 14.4 million tonnes at 4.5g/t gold and 36g/t silver. This resource estimate was compiled using a dataset of 1,160 trenches and 26,733 metres of diamond core. It was estimated by polygonal methods which is not yet considered JORC 2012 compliant. This historic resource estimate was compiled using a dataset of 1,160 trenches and 26,733 metres of diamond core and essentially breaks the Project's 9km of strike into three main prospects: Papayal; Iguana; and Cerro Verde (Figure 1).

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 existing dataset to align it with JORC 2012 requirements, with the Cerro Verde area nearing completion of drilling.

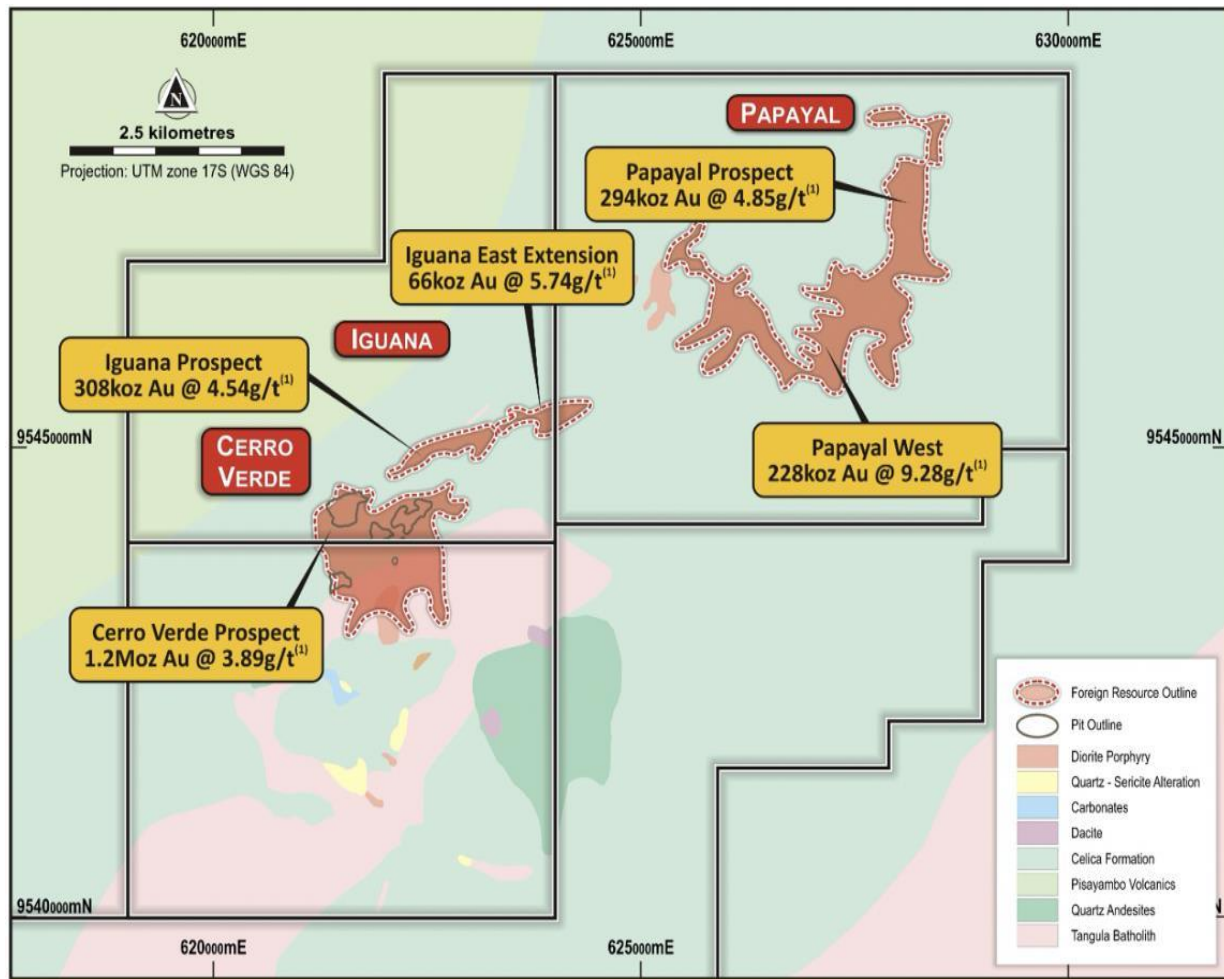


Figure 1: Dynasty Project showing key Prospects and foreign resource estimates

### Diamond Drilling at Dynasty Project

Titan commenced a phase of resource definition and extensional drilling in mid-2021. To date the Company has completed 100 drill holes for 20,756.99 metres of diamond core drilling on the Cerro Verde Prospect. This includes seven (7) drill holes that were abandoned due to technical issues for a total of 595 metres. Assay results have now been received for 51 of the 100 holes drilled with the first 29 holes of the programme previously reported (refer to the ASX releases dated 9 September and 17 November 2021).

Titan's ASX announcement dated 17 December 2021 provided an update of assay results received for the next 22 drill holes.



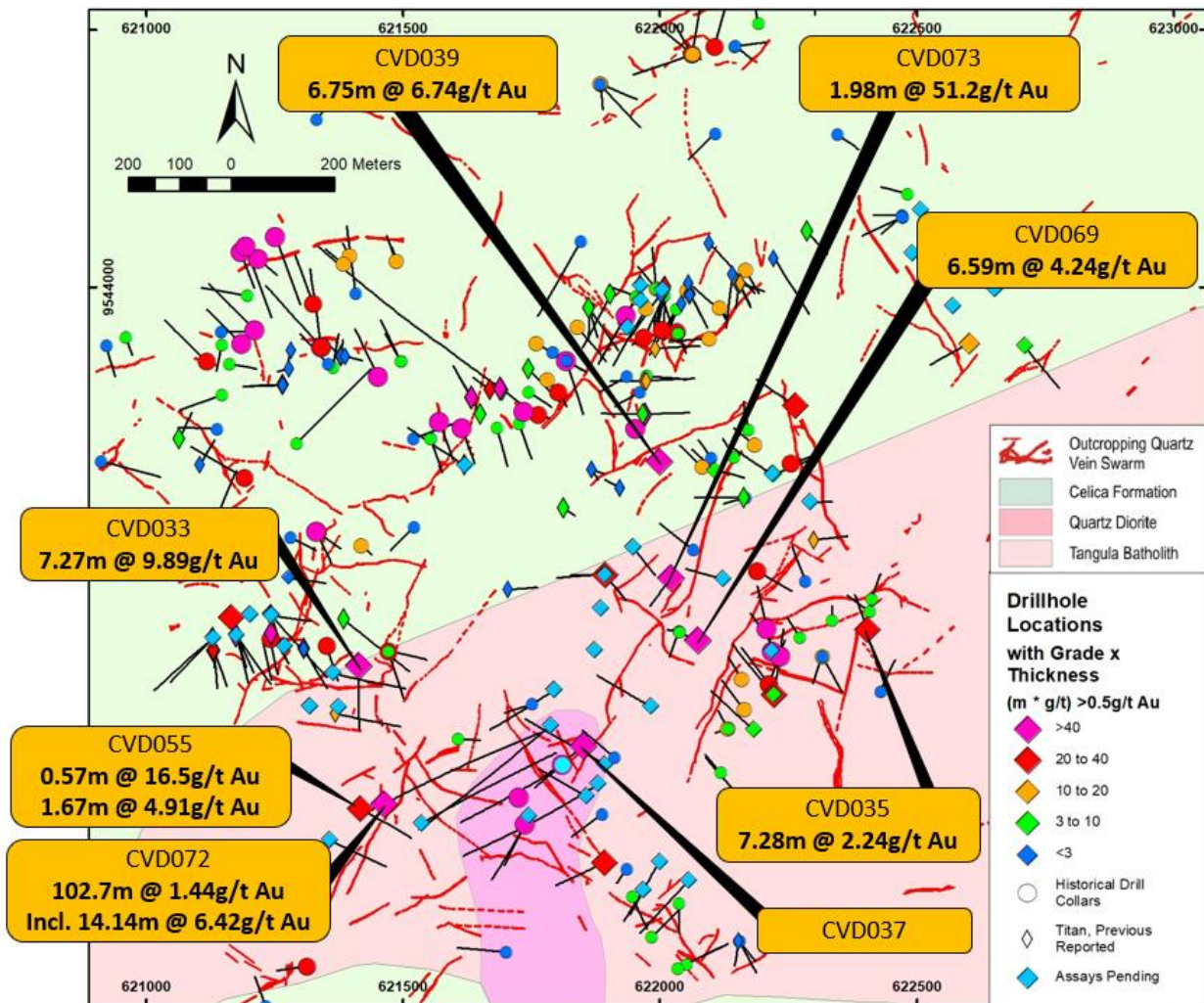


Figure 2: Cerro Verde Prospect Drill Collar locations

These assay results, in combination with an additional five (5) holes completed this quarter on the Iguana Prospect, leaves a balance of 51 drill holes completed and awaiting assay analyses. Extended laboratory turn-around times are not anticipated to abate going into 2022 and assay results for drilling completed through December are anticipated to be received incrementally from February through to March 2022.

### New Data

Assay results were received from a further 22 drill holes totalling 4,453m of drilling during the quarter, returning excellent high-grade results, with all reported drill holes returning significant gold intercepts ranging from the same magnitude of the previous drilling, to including several holes returning much higher grades and/or widths than predicted. The better results from these 22 holes include:

- 1.98m @ 51.2g/t gold with 9.1g/t silver from 135.5m in CVD073
- CVD073 is a first drill test into a northwest oriented vein, previously identified only in surface channel sampling, located 130m northwest of hole CVD068
- 6.59m @ 4.24g/t gold with 12g/t silver from 68.45m in CVD068
- 14.14m @ 6.42g/t gold with 16g/t silver from 87.09m drill depth in drill hole CVD072

CVD072 is a first drill test into northwest trending vein set within the Cerro Verde prospect identified in historical trench sampling programmes. Surface channel sample results above the drill trace range from 0.5g/t gold up to 3.81g/t gold at surface. CVD072 intersected a

significant zone of quartz healed breccia associated with sulphide mineralisation, returning a broader intercept of 43.06m @ 2.56g/t gold from 84.94m depth.

Located on a section 80m north of CVD037 both holes are drilled on the margins of a stockwork zone associated with an intrusion complex at the southern end of the Cerro Verde Prospect area. Both holes report much broader mineralized zones at a lower cut-off (0.3g/t gold), with CVD072 reporting 102.7m @ 1.44g/t gold from 46.5m depth to end of assays received to date for the 487m deep hole. Noting that the additional assay results for this hole past 149.2m depth will be reported once received.

- 7.27m @ 9.89g/t gold with 28g/t silver from 118.78m in CVD033 located 275m north of CVD072, drill hole CVD033 highlights the opportunity for high-grade shoots in the drill gap between these two holes that requires further drilling testing in the coming year.
- 6.75m @ 6.74g/t gold with 82g/t silver from 53.83m
- Intersected within, 18.1m @ 3.83g/t gold with 50g/t silver and, 4.39m @ 3.63g/t gold with 35g/t silver from 73.05m in CVD039
- 4.60m @ 5.83g/t gold with 25g/t silver from 61.9m in CVD069

These initial drilling programs commenced by Titan have had a resource definition focus with an objective view to further validate the Foreign Resource estimate. This first phase of increasing drill density to a nominal 40m (vertical) x 80m (along strike) pattern now completed for the Iguana and Cerro Verde Prospects. The initial focus on Iguana and Cerro Verde Prospects is due to its convenient access and logistics, with planned drilling now advancing to Papayal, hosting higher grade gold and silver results in previous channel sampling and limited drill testing.





Plate 1: Quartz veining and quartz breccia textures in hole CVD072. Interval returning 4.56m @ 11.2g/t gold and 25.6g/t silver from 96.67m depth hosted in quartz diorite.

### Cerro Verde Prospect

The Cerro Verde Prospect in the southwest of the overall Dynasty Project manifests as an extensive cluster of ramifying low sulfidation epithermal veins.

As was concluded by the small-scale mining phase at Cerro Verde, the structural architecture and mineralisation halo's around the auriferous veins are more extensive than depicted by the previous polygonal estimates which had applied higher cut-off grades. Mine to model reconciliation studies for small scale mining activity as at December 2018 concluded 69% more tonnes at 85% of the grade for 39% more overall ounces were extracted from shallow open pits within the Cerro Verde Prospect area. Results to date have shown increased vein density in some areas.

The previous resource estimate was broken between three main prospects, Papayal; Iguana; and Cerro Verde (Figure 1). Titan has been re-collating, validating, and increasing drill density in some areas.

### Planned Works in the Ensuing Quarter

In the ensuing quarter it is planned to continue mapping, channel and rock sampling at the Cerro Verde Prospect. Relogging of historical diamond drill holes will commence to aid in building a robust geological model that will underpin the impending resource model.

Drilling is set to commence at the Papayal Prospect early in the next quarter with thirteen (13) drill holes planned for approximately 2,500 metres. Three (3) of these drill holes are going to twin historical drill holes to confirm geological and assay data.

## COPPER DUKE PROJECT (100%)

### About the Copper Duke Project

Copper Duke is an early-stage exploration project located approximately 18km east of the Company's more advanced Dynasty Gold Project. Comprised of thirteen concessions totalling 130km<sup>2</sup> in the Loja Province of southern Ecuador, CopperDuke is host to multiple porphyritic textured intrusions associated with extensive copper-gold anomalism and quartz hosted gold veining outcropping at surface. The high resolution airborne magnetic and radiometric survey completed by Titan Minerals in late 2020 is the first significant catalyst in advancement of the Copper Duke Project since exploration activity ceased in 2007, leaving significant un-drilled potential at Copper Duke.

Following integration of historical data with airborne geophysical results to better define and rank targets for mapping and systematic geochemistry work, Titan has progressed an aggressive mapping and sampling campaign in 2021 and reconnaissance drilling is being progressed to validate historical work. Results of ongoing exploration activities will support a ranking of numerous drill ready targets planned for Q1 of 2022 ahead of maiden drill testing budgeted for mid-2022.

### Diamond Drilling at Copper Duke Project

In December, Titan commenced an inaugural round of reconnaissance drilling at the Company's 100% held Copper Duke project (ASX Announcement 13 December 2021).

The objective of this first program was to validate historic results from two diamond holes drilled in 1978 by the United Nations (U.N.) aimed at discovering molybdenum but intersected gold mineralisation. Additionally, the first hole tested an interpreted magnetic target proximal to one of the historic holes. Background work by way of geophysics, geochemistry, mapping and rock chip sampling is being completed, progressing numerous targets generated earlier this year from newly completed airborne magnetic and radiometric surveys (refer to ASX release dated 2 March 2021).

The core from the first hole, HTD001 (Figure 3), looks visually encouraging with zones of magnetite veining within predominantly andesitic volcanics. The magnetite veining is often associated with pyrite and crosscut by narrow quartz-pyrite veinlets associated with pervasive magnetite-biotite-chlorite alteration and localised quartz-sericite-pyrite alteration in the silicified rocks. The Company moved one of the four rigs drilling at its Dynasty Project to Copper Duke to complete two holes for a planned 540m campaign before the wet season curtails access in this drill season.

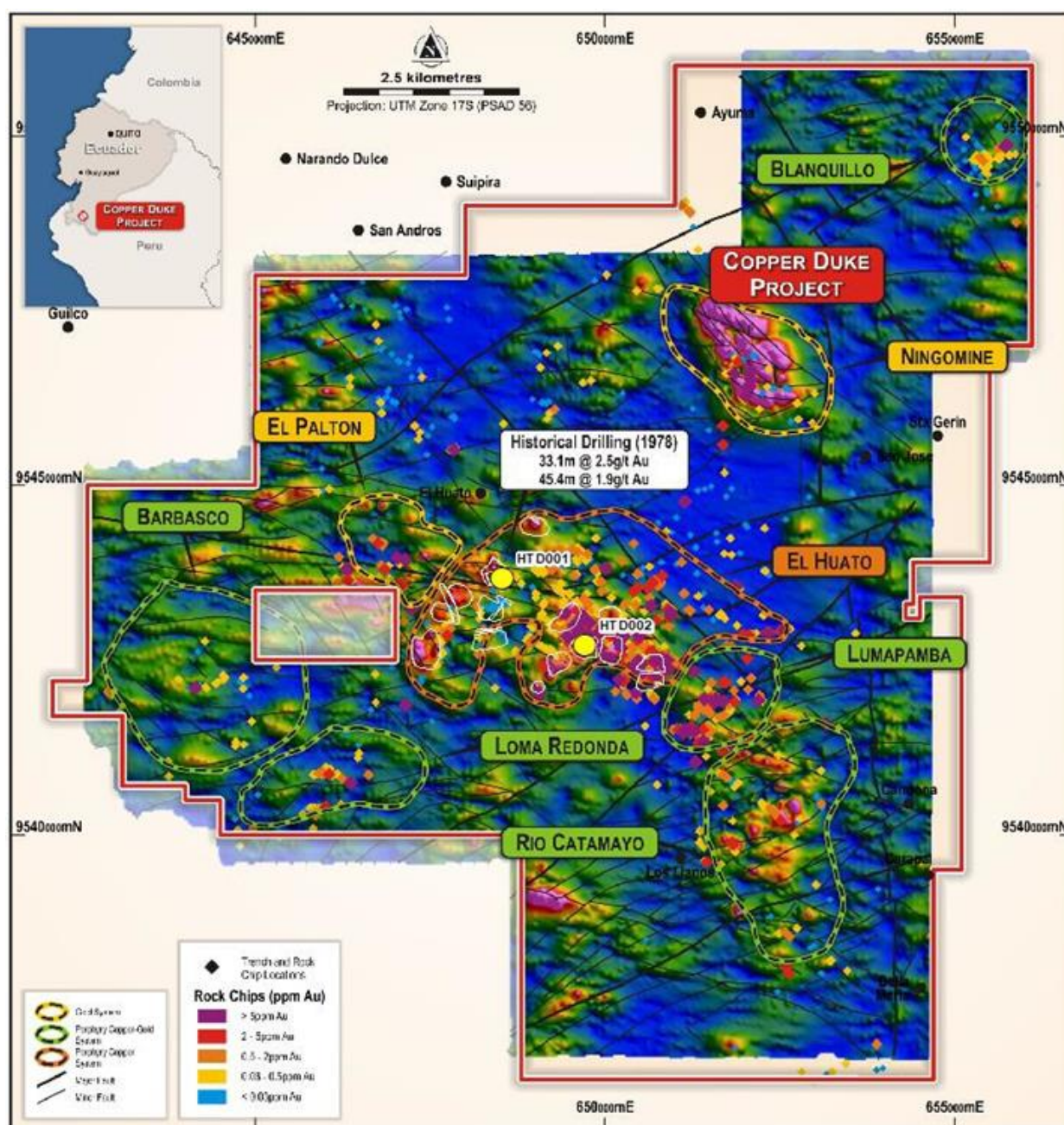


Figure 3: Drillhole location map of hole HTD001, and proposed HTD002 drill site on Analytical Signal Filter image of airborne magnetic response, with surface geochemistry results



This program had two main objectives:

- 1) The validation of drill hole results from historical drill holes completed in 1978 as follow-up work to a U.N. survey to identify strategic base metal potential in the region. In the UN program drill hole SON-02 was drilled to a depth of 220m depth and only the top 62.75m was assayed for gold and silver with published results declaring an interval of 45.4m @ 1.9g/t gold from surface. The description notes poor core recovery to in the upper part of the hole. (refer to ASX release dated 25 May 2020). Titan's first hole, HTD001, was drilled to a depth of 291.07 m to test the of the magnetic anomalism highlighted in 3D inversion modelling of the high-resolution magnetic datasets generated earlier this year.
- 2) A second hole, HTD002, drilled 1.5km to the southeast on a sub-parallel trend of magnetic anomalies associated with relatively higher gold grades and increasing vein density noted in surface mapping and sampling to the southeast in the El Huato target (Figure 3). Drill hole HTD002 drilled to a depth of 208.73m. The first core from the diamond hole, HTD001, hole looks visually encouraging intersecting zones of magnetite veining within predominantly andesitic volcanics, including magnetite veining often associated with pyrite and crosscut by narrow quartz-pyrite veinlets (refer to Plates 1 and 2a) associated with pervasive alteration and localised quartz-sericite-pyrite alteration in the silicified rocks.

Several narrow diorite dykes were intersected hosting disseminated magnetite but the dykes are less altered than the surrounding volcanic sequence and do not appear to be a causative intrusion for porphyry style mineralisation.

Borehole HTD002 intersected a thick volcano-sedimentary succession, similar to drill hole HTD001. The rocks are affected by moderate pervasive magnetite-biotite-chlorite±epidote alteration. Stockwork veins consisting mainly of quartz-pyrite-magnetite±chalcopyrite are common for the entire extent of the borehole. Several tectonic breccia zones filled with thicker (up to 20 - 30 cm) pyrite-pyrrhotite magnetite and carbonate minerals were intersected (Plate 3).

Based on the surface observations it is quite possible that these veins and breccias are gold-bearing.

Drill holes HTD001 and HTD002 have been logged and sampled with samples sent to the laboratory. Assay results are expected in the first quarter of 2022.

Table 1: Copper Duke drill hole location

| Hole (#) | Azimuth (°) | Inclination (°) | EOH (m) | Easting | Northing | Elevation (m) |
|----------|-------------|-----------------|---------|---------|----------|---------------|
| HTD001   | 325         | -60             | 291.07  | 648257  | 9543301  | 1,978         |
| HTD002   | 052         | -65             | 288.39  | 649445  | 9542344  | 1,922         |

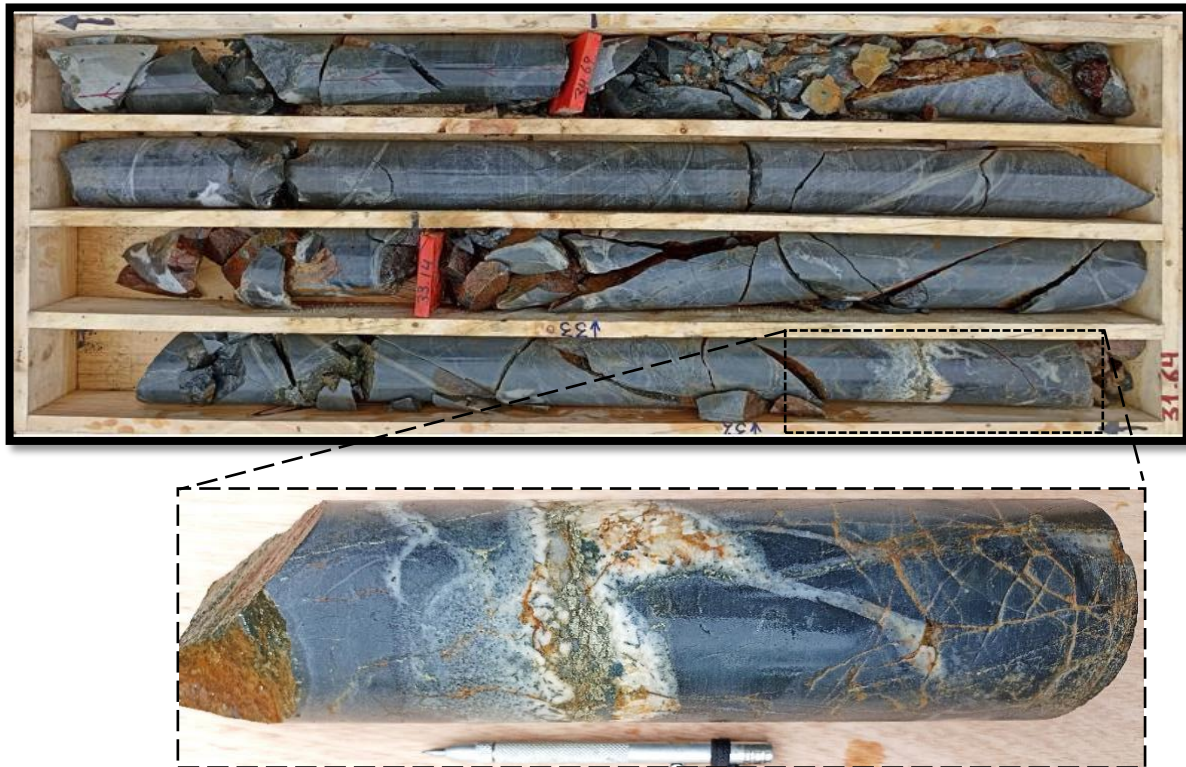


Plate 1: HTD001 core (31.64m to 35m interval), intersecting andesitic volcanic with partially oxidised quartz-pyrite stockworks and narrow quartz-pyrite-chalcopyrite veinlets



Plate 2: (2a) volcanic breccia unit hosting intense disseminated magnetite and quartz-magnetite filled fractures crosscut by quartz-pyrite-chlorite filled fractures (from 56.4m depth) – (2b) silicified and quartz-pyrite-sericite altered andesite with magnetite-pyrite veinlets and quartz-pyrite type stockworks (from 216.9m depth), and (2c) Strongly silicified volcanics, intensely chlorite to sericite altered with quartz-pyrite veining (from 257.2m depth).





Plate 3. Copper Duke Project – Borehole HTD002 – Details of abundant sulphides (pyrrhotite, pyrite) and magnetite-quartz±chalcopyrite veining (~196 m depth).

### Exploration Update

Titan continues to progress its surface reconnaissance works at the Copper Duke Project. In the September quarter, programs of systematic soil geochemistry surveys were initiated concurrent mapping and rock/channel sampling. These were focused on priority targets generated from high resolution airborne geophysics generated earlier in the year (refer to ASX releases dated 21 January and 2 March 2021).

The soil survey campaign is nearing completion with the soil geochemistry coverage for the Copper Duke Project increased by approximately 300%, and an additional 270 rock chip samples along with over 1,900m of channel sampling have been completed in the process of ground truthing the geophysical interpretations of magnetic and radiometric data. Assay results for surface geochemistry are anticipated in the ensuing quarter.

### Planned Works in the Ensuing Quarter

In the ensuing quarter it is planned to continue mapping, channel sampling and soil sampling. The diamond drill holes assay results will be evaluated against the historical and geophysical data to aid in vectoring to mineralised systems.



## LINDEROS PROJECT (100%)

### About The Linderos Project

The Linderos Project is located 20km southwest of the Dynasty Gold Project and comprises four contiguous concessions totalling over 143km<sup>2</sup> located near the Peruvian border in the Loja Province in southern Ecuador.

Linderos is positioned on a major flexure in the Andean Terrane and sits within a mineralised corridor of late Miocene aged intrusions which hosts the majority of porphyry copper and epithermal gold deposits in southern Ecuador. Associated with magmatism in this epoch a number of younger intrusions have intruded along the margin of the extensive Cretaceous aged Tangula Batholith and a loci for significant mineral deposition.

There are currently four defined prospects within Linderos (Figure 4):

- 1) Meseta Gold Prospect (the most advanced)
- 2) Copper Ridge Prospect
- 3) Loma Alta Prospect and
- 4) Victoria Prospect

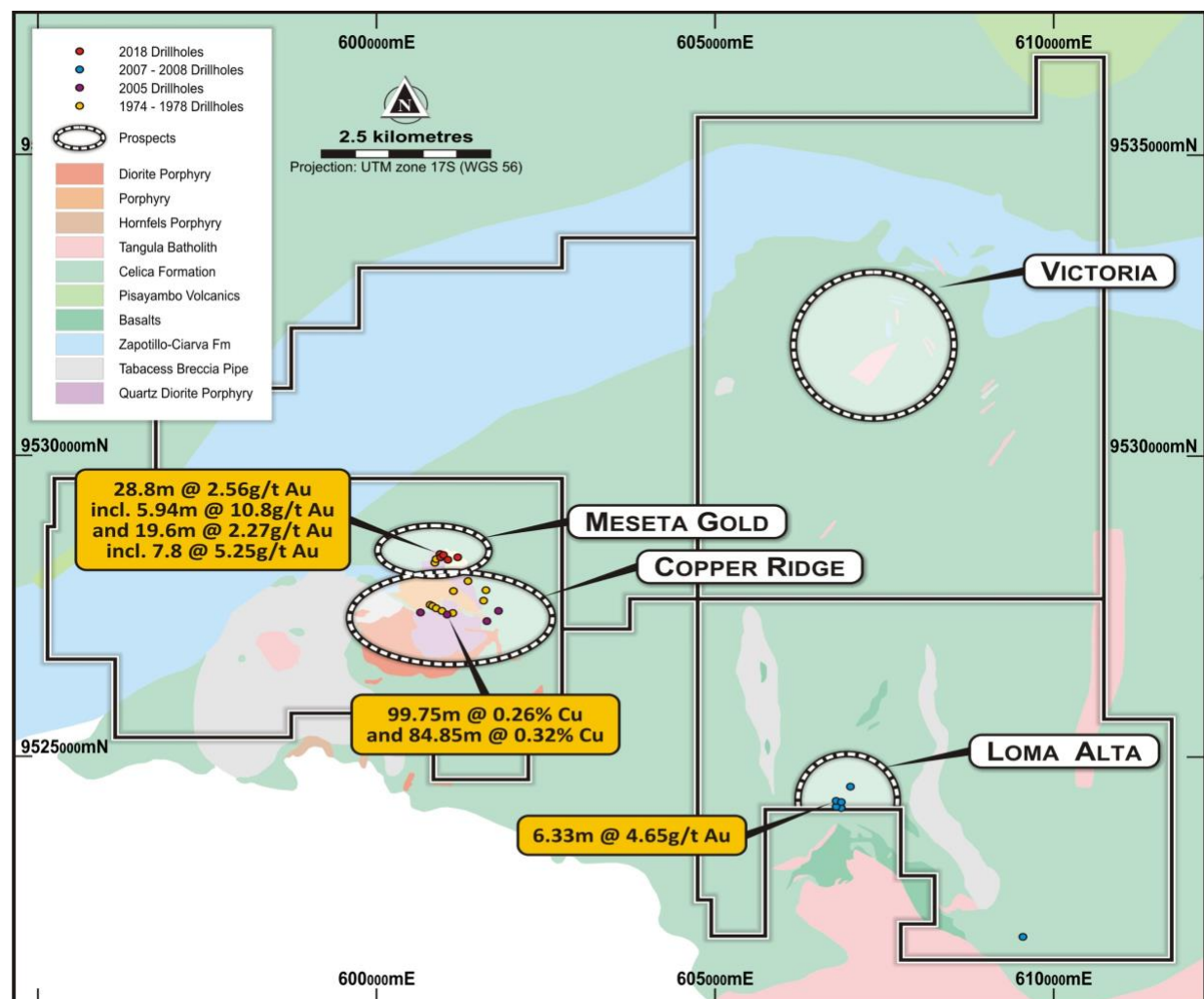


Figure 4: Linderos Prospect Locations

### Exploration at Linderos

Titan commenced a major campaign of surface reconnaissance works at Linderos after consolidating and reviewing all the historic data. The current exploration programme is focussed on advancing the Meseta Gold Prospect and the Copper Ridge Prospect located adjacent to one another. The Company announced in early November that very exciting assay results from surface works were beginning to filter through. (ASX Announcement 8 November 2021)

### Meseta Gold Prospect

Gold mineralisation across the Meseta Gold Prospect is hosted in steep to sub-vertical fault structures at the margins of the porphyry stock and is associated with strong silicification and oxidation of the sulphides.

Several features suggesting the presence of an intermediate to high-sulphidation gold system at these areas have been observed. Including results showing several zones of very high-grade results that include an area of previous trenching just southwest of hole LDH004 (Figure 2) where channel sample results within a 150m x 100m zone of sampling include a number of bonanza grade gold assay results (refer to ASX release dated 21 July 2021) including:

- 21m @ 18.5g/t gold in trench Linderos-13
- 19.95m @ 14.3g/t in trench Linderos -16
- 18.2m @ 14.7 g/t gold in trench Linderos -14

Significant assay results of individual samples in the channel sampled area include up to 326g/t gold with 141 g/t silver, and up to 161g/t gold with 87g/t silver (refer to ASX release dated 21 July 2021). Follow-up drilling completed in 2018 totalling over 1,926m from 11 drill holes confirmed mineralisation in fresh rock below the zone of channel sampling and tested for extensions of mineralisation to the east under very thin transported cover for up to 1km under the geochemically blind plateaux. All eleven holes at the Meseta Prospect intersected extensive hydrothermal related alteration and localised gold mineralisation with reported intercepts including:

- 5.94m @ 10.8 g/t gold from 36.4m in hole LDH004
- 8.88m @ 4.70 g/t gold from 40.65m in hole LDH004A
- 14.32m @ 1.43 g/t gold from 45.44m in hole LDH003

### New Results and Discussion

Assay results are slowly starting to filter through from the latest fieldwork and assay results received to date from for an initial 144 of 227 rock chip samples collected during mapping include the following peak results:

- 64g/t gold with >1,500 g/t silver and 26.9g/t gold with 715g/t silver located 500m east of the nearest drilling.
- 61g/t gold with 103g/t silver and 42g/t gold with 9g/t silver located on the western margin of the Meseta Prospect, confirming presence of grade at location of 2017 channel sampling.
- 13g/t gold with 16g/t silver and 7.3g/t gold with 11g/t silver on new veining identified 2.3 kilometres southeast of the 2017 channel sampling.

The results show that the gold system at Meseta is clearly far more extensive than defined to date and the Company remains excited to receive assay data for the outstanding samples. Further work is required

to follow-up on rock chips received to date, and a review of work is planned to assess and rank potential gold targets within Linderos.

### Environmental Permit to Drill

Titan was issued an environmental permit under the Ecuador Scout drilling register, which will allow for up to 30 drilling platforms at Linderos. Systematic soil geochemistry sampling, trench and channel sampling and mapping programmes are being conducted. A high resolution heli-borne magnetic and radiometric survey was flown in early January 2022. These data layers, geophysical, geochemistry and mapping will aid in defining drill hole targets.

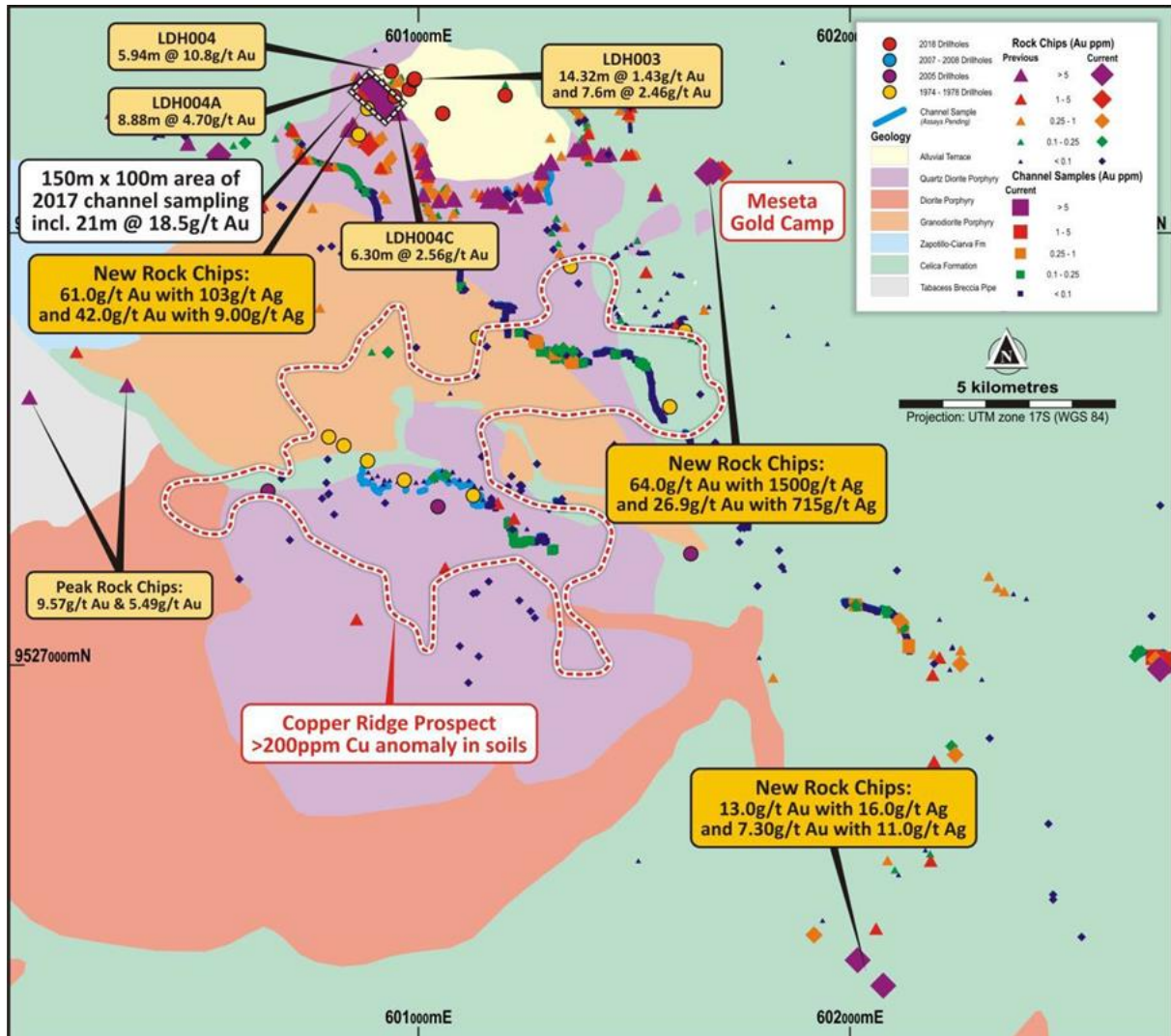


Figure 5: Gold results in rock chip and channel sampling, with historic geology and drill collar locations

### Copper Ridge Prospect

Copper Ridge is an outcropping porphyritic intrusion complex hosting copper and molybdenum anomalism in zoned phyllic and argillic alteration associated with a porphyry copper intrusion. Surface soil geochemistry has defined a strong copper-molybdenum (Cu-Mo) anomaly (Figure 5) centred on a quartz-diorite porphyry intrusion mapped to be approximately 1km in diameter (Figure 5).

The porphyry stock, hosts, and is haloed, by a significant footprint of quartz vein stockworks and porphyry related alteration covering an area of approximately 3km<sup>2</sup>. On the northern and eastern margins of the porphyry, sizable zones of alteration have been mapped with extensive gold anomalism occurring and



overlapping what is interpreted to be a telescoping epithermal related gold mineralisation of the Meseta Prospect.

Historically, three campaigns of drilling have been completed across the Copper Ridge Prospect totalling over 2,060m from 16 holes completed at various times between 1974 and 2005 (refer to ASX release dated 21 July 2021). Each programme returned highly anomalous copper results from various levels of phyllic and potassic alteration overprinted by argillic alteration. Better results from previous drilling includes:

- 99.75m @ 0.26% copper from 255m drilled depth – ERIKA01
- 84.85m @ 0.32% copper (from surface to end of hole) – ERIKA02
- 20m @ 0.21% copper from 181m to EOH - ERIKA02A
- 77.05m @ 0.19% copper (from surface to EOH) – DHW05
- 50.25m @ 0.33% copper (from surface to EOH) – DHW06

The deepest of these holes was ERIKA01, which revealed increasingly higher grades of copper up to 0.5% individual copper grades within phyllic alteration towards the bottom of the hole. In total, three (3) holes in the five-hole program were terminated in favourable copper mineralisation (refer to ASX release dated 21 July 2021) demonstrating significant vertical and lateral extent of mineralisation in limited exploration to date.

This had led Titan to re-process and re-interpret historic geophysical data. This has shown a potential conducting body deeper in the system and Titan is electing to complete a more detailed 3-D Induced Polarisation (IP) survey before drill testing this exciting target. It is hoped to complete this survey in early 2022 following a high resolution heli-borne magnetic and radiometric survey over the whole Linderos concession scheduled for early January 2022.

### New Results & Discussion

Channel and rock chip sampling results over the Copper Ridge Prospect have defined an area of significantly more pervasive and higher tenor copper mineralisation in argillic and phyllic alteration. This is encouraging as it indicates that the erosional level of the outcropping porphyry copper body is high in the porphyry system allowing scope for higher grades with depth. The Company has instigated proposals for a 3D, ground IP (“induced polarisation”) survey which is hoped to be completed in early 2022.

Initial results of an ongoing channel sampling campaign across the Copper Ridge Prospect and surround gold targets have unveiled much higher tenor of copper mineralisation at surface than has been inferred from limited shallow drilling in historical datasets (Figure 6). Previous drilling included both mineralisation from surface, and holes ending in mineralisation (refer to ASX release dated 21 July 2021).

Assay results have been received for the first 28 channel samples totalling 1,298m out of 47 channels collected to date. A further 728m of sampling is pending analysis. Better results from recent channel sampling that have returned surface values in un-drilled areas indicating higher grade mineralisation within the prospect, include:

- 42m @ 0.31% copper and 0.12g/t gold including 12m @ 0.39% copper (Channel - CRC022)
- 42m @ 0.29% copper and 0.08g/t gold including 8m @ 0.53% copper (Channel - CRC023)
- 90m @ 0.26% copper and 0.13g/t gold (Channel - CRC003)

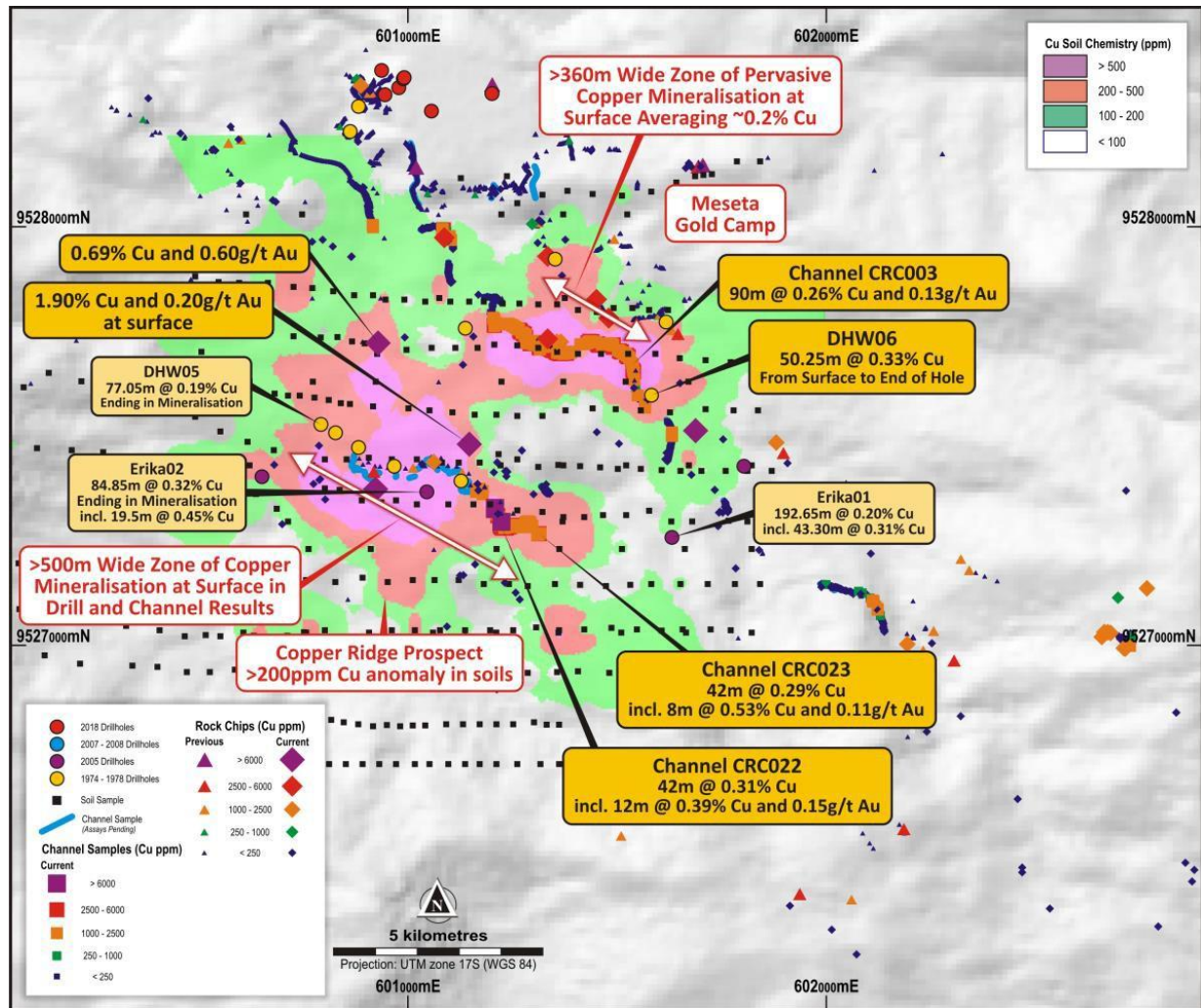


Figure 6: Copper results in rock chip and channel sampling, Meseta and Copper Ridge Prospects

Channels CRC022 and CRC023 (Figure 6) are located approximately 400m to 500m east of a cluster of vertical U.N. holes drilled in the 1970's that reported 55.1m @ 0.13% Cu, 30.2m @ 0.15% copper and 77.1m @ 0.19% Cu from surface (refer to ASX release dated 21 July 2021). The reported channel results are also located over 200m east of historic drillhole ERIKA02. Drillholes ERIKA02A and ERIKA02 are mineralised from surface, with ERIKA02 ending in mineralisation, returning 84.85m @ 0.32% copper, including 19.3m @ 0.45% copper from 25.5m depth.

The extension and increasing tenor of mineralisation in channels CRC022 and CRC023 (Figure 6) outlines over 500m of copper mineralisation along a northwest to southeast trend in plan view over the intrusion complex at Copper Ridge. The reported 42m @ 0.31% copper including 12m @ 0.39% copper (CRC022) and the 42m @ 0.29% copper including 8m @ 0.53% copper (CRC023) are proximal to the vertical projection of ERIKA01 and its mineralised intercept averaging 0.31% copper in the final 43.3m drilled and averaging 0.39% copper in the final 19.3m of the hole, located approximately 280m vertically below surface.

The expanding footprint of copper mineralisation is further demonstrated in channel sample results located 500m to the northeast of hole ERIKA02, where a 360m wide zone of copper mineralisation averaging over 0.2% copper on a northwest to southeast trend is reported in channels CHRC01-02, CRC003, CRC004-007 and CRC010-013 (Figure 6). The extensive zone of copper mineralisation is hosted within a mapped quartz stockwork zone hosted in the quartz diorite stock at Copper Ridge. The channel sampled mineralisation to date correlates strongly with the footprint of >200ppm copper in historic soil geochemistry datasets for the project (Figure 6).

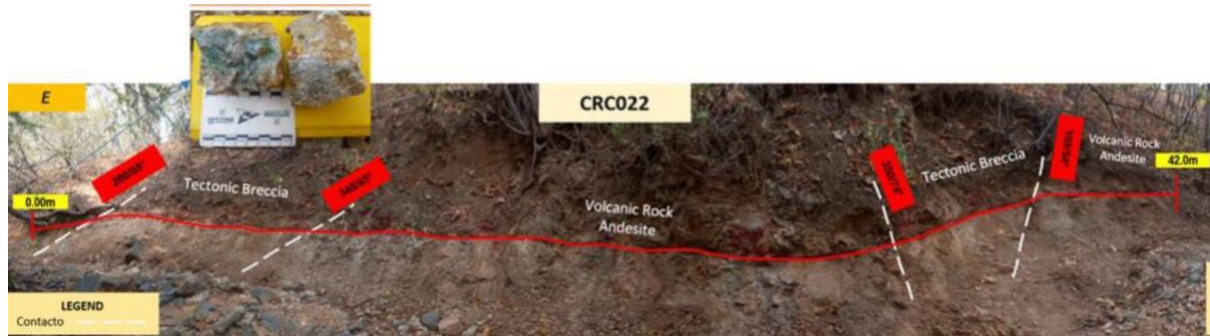


Plate 4: Photo of Channel sample CRC022 returning 42m @ 0.31% copper with 0.12g/t gold hosted in andesite volcanics and peak value of 0.54% copper in tectonic breccia.

#### Planned Works in the Ensuing Quarter

In the ensuing quarter it is planned to fly 1,544 line-kilometre heli-borne magnetic and radiometric survey over the entire Linderos concession. This will complement the great results from reconnaissance exploration at the Meseta Gold Prospect and the Copper Ridge Prospect porphyry copper target within the Linderos Project.

In addition, the company plans to continue soil and channel sample programmes with accompanied geological mapping



## CORPORATE

### Capital Raise

During the quarter the Company raised A\$18,000,000 at 10 cents per share via an oversubscribed placement. The Company also converted A\$3.8M of debt to shares at the placement price.

Directors Mr Peter Cook and Mr Nick Rowley acquired A\$1,000,000 and \$315,000 of shares on-market and Mr Rowley subscribed for a further \$185,000 at the placement price.

The issue of the above securities was ratified by shareholders at the General Meeting on 8 December 2021. All resolutions at the meeting were passed by a poll.

### Director appointment

During the quarter Mr Barry Bourne was appointed as a non executive director. Mr Barry Bourne was issued 5,000,00 Performance Options as approved by shareholders on 8 December 2021.

### Cash

As at 31 December 2021, the Company had a reported cash position of US\$8,750,000.

In addition the Company holds US\$8,600,000 of cash receivables and liquid assets.

### Related Party Payments

In line with its obligations under ASX Listing Rule 5.3.5, Titan Minerals Limited notes that the payments to related parties of the Company, as advised in the Appendix 5B for the period ended 31 December 2021, pertain to payments to directors for fees, salary, and superannuation.

## ENDS

### Competent Person's Statements

The information in this report that relates to Geochemical Exploration Results is based on information compiled by Mr Travis Schwertfeger, who is a Member of The Australian Institute of Geoscientists. Mr Schwertfeger is a Consulting 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.

## Notes to Foreign Mineral Resource Estimate

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.

For personal use only

## Appendix 1 – Tenements

Mining tenements held at the end of the December 2021 quarter:

| Project      | Location      | Tenement                | Interest at end of quarter |
|--------------|---------------|-------------------------|----------------------------|
| Dynasty      | Loja, Ecuador | PILO 9                  | 100%                       |
| Dynasty      | Loja, Ecuador | ZAR                     | 100%                       |
| Dynasty      | Loja, Ecuador | ZAR 1                   | 100%                       |
| Dynasty      | Loja, Ecuador | CECILIA 1               | 100%                       |
| Dynasty      | Loja, Ecuador | ZAR TRES A              | 100%                       |
| Copper Duke  | Loja, Ecuador | BARBASCO                | 100%                       |
| Copper Duke  | Loja, Ecuador | BARBASCO 1              | 100%                       |
| Copper Duke  | Loja, Ecuador | BARBASCO 2              | 100%                       |
| Copper Duke  | Loja, Ecuador | BARBASCO 4              | 100%                       |
| Copper Duke  | Loja, Ecuador | CAROL                   | 100%                       |
| Copper Duke  | Loja, Ecuador | CATACOCCHA              | 100%                       |
| Copper Duke  | Loja, Ecuador | COLANGA                 | 100%                       |
| Copper Duke  | Loja, Ecuador | COLANGA 2               | 100%                       |
| Copper Duke  | Loja, Ecuador | GLORIA                  | 100%                       |
| Copper Duke  | Loja, Ecuador | GLORIA 1                | 100%                       |
| Copper Duke  | Loja, Ecuador | GONZA 1                 | 100%                       |
| Copper Duke  | Loja, Ecuador | LUMAPAMBA               | 100%                       |
| Copper Duke  | Loja, Ecuador | LUMAPAMBA 1             | 100%                       |
| Linderos     | Loja, Ecuador | CHORRERA                | 100%                       |
| Linderos     | Loja, Ecuador | DYNASTY 1               | 100%                       |
| Linderos     | Loja, Ecuador | LINDEROS E              | 100%                       |
| Linderos     | Loja, Ecuador | NARANJO                 | 100%                       |
| Copper Field | Loja, Ecuador | COOPER 1                | 100%                       |
| Copper Field | Loja, Ecuador | COOPER 4                | 100%                       |
| Alce         | Southern Peru | ALCE                    | 100%                       |
| Phoebe       | Southern Peru | PHOEBE 1                | 100%                       |
| Phoebe       | Southern Peru | PHOEBE 2                | 100%                       |
| Phoebe       | Southern Peru | PHOEBE 3                | 100%                       |
| Phoebe       | Southern Peru | PHOEBE 4                | 100%                       |
| Phoebe       | Southern Peru | PHOEBE 5                | 100%                       |
| Phoebe       | Southern Peru | TOROLUMI                | 100%                       |
| Phoebe       | Southern Peru | TOROLUMI II             | 100%                       |
| Cart         | Central Peru  | CART01                  | 100% <sup>(1)</sup>        |
| Colossus     | Central Peru  | COLOSSUS01              | 100% <sup>(1)</sup>        |
| Jaw          | Southern Peru | JAW01                   | 100% <sup>(1)</sup>        |
| Jaw          | Southern Peru | JAW02                   | 100% <sup>(1)</sup>        |
| San Santiago | Southern Peru | San Santiago De Acari   | 100%                       |
| San Santiago | Southern Peru | Virgen Del Carmen 2004P | 100%                       |

(1) Concession applications through wholly owned Peruvian subsidiaries of Titan with pending registration of final



Mining tenements acquired and disposed during the December 2021 quarter:

| Project                       | Location | Tenement | Interest at beginning of the quarter | Interest at end of the quarter |
|-------------------------------|----------|----------|--------------------------------------|--------------------------------|
| Mining tenements acquired     |          |          |                                      |                                |
| Nil                           |          |          |                                      |                                |
| Mining tenements relinquished |          |          |                                      |                                |

Beneficial percentage interests in farm-in or farm-out agreements at the end of the December 2021 quarter:

| Project | Location | Tenement | Interest at end of the quarter |
|---------|----------|----------|--------------------------------|
| Nil     |          |          |                                |

Beneficial percentage interests in farm-in or farm-out agreements acquired or disposed of during the December 2021 quarter:

| Project                                       | Location | Tenement | Interest at beginning of the quarter | Interest at end of the quarter |
|---|----------|----------|--------------------------------------|--------------------------------|
| <i>Farm-in or farm-out interests acquired</i> |          |          |                                      |                                |
| Nil   |          |          |                                      |                                |
| <i>Farm-in or farm-out interests disposed</i> |          |          |                                      |                                |
| Nil   |          |          |                                      |                                |



## Appendix 5B

### Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

Titan Minerals Limited

ABN

97 117 790 897

Quarter ended ("current quarter")

31 December 2021

| Consolidated statement of cash flows |   | Current quarter<br>\$US'000 | Year to date (12<br>months)<br>\$US'000 |
|--------------------------------------|---|-----------------------------|---|
| <b>1.</b>                            | <b>Cash flows from operating activities</b>               |                             |   |
| 1.1                                  | Receipts from customers                                   | -                           | -                                       |
| 1.2                                  | Payments for  |                             |   |
|                                      | (a) exploration & evaluation                              | -                           | -                                       |
|                                      | (b) development   | -                           | -                                       |
|                                      | (c) production  | -                           | -                                       |
|                                      | (d) staff costs   | (190)                       | (812)                                   |
|                                      | (e) administration and corporate costs                    | (1,300)                     | (3,771)                                 |
|                                      | - Ecuador corporate restructuring<br>including legal      | (200)                       | (1,165)                                 |
|                                      | - Ecuador care and maintenance                            | (86)                        | (790)                                   |
|                                      | - Ecuador deferred payables                               | (30)                        | (1,409)                                 |
| 1.3                                  | Dividends received (see note 3)                           | -                           | -                                       |
| 1.4                                  | Interest received   | -                           | 5                                       |
| 1.5                                  | Interest and other costs of finance paid                  | (85)                        | (147)                                   |
| 1.6                                  | Income taxes paid   | -                           | -                                       |
| 1.7                                  | Government grants and tax incentives                      | -                           | -                                       |
| 1.8                                  | Other (provide details if material)                       | -                           | 371                                     |
| <b>1.9</b>                           | <b>Net cash from / (used in) operating<br/>activities</b> | <b>(1,891)</b>              | <b>(7,718)</b>                          |
| <b>2.</b>                            | <b>Cash flows from investing activities</b>               |                             |   |
| 2.1                                  | Payments to acquire:                                      |                             |   |
|                                      | (a) entities  | -                           | -                                       |
|                                      | (b) tenements   | -                           | -                                       |
|                                      | (c) property, plant and equipment                         | -                           | -                                       |

For personal use only



| Consolidated statement of cash flows |   | Current quarter<br>\$US'000 | Year to date (12 months)<br>\$US'000 |
|--------------------------------------|---|-----------------------------|--------------------------------------|
|                                      | (d) exploration & evaluation                          | (2,516)                     | (9,358)                              |
|                                      | (e) investments                                       | -                           | -                                    |
|                                      | (f) other non-current assets                          | -                           | -                                    |
| 2.2                                  | Proceeds from the disposal of:                        |                             |                                      |
|                                      | (a) entities  | 634                         | 8,261                                |
|                                      | (b) tenements   | -                           | -                                    |
|                                      | (c) property, plant and equipment                     | -                           | -                                    |
|                                      | (d) investments                                       | -                           | -                                    |
|                                      | (e) other non-current assets                          | -                           | 1,000                                |
| 2.3                                  | Cash flows from loans to other entities               | -                           | -                                    |
| 2.4                                  | Dividends received (see note 3)                       | -                           | -                                    |
| 2.5                                  | Other   |                             |                                      |
|                                      | - Disposal of Vista Gold SAC                          | -                           | 1,150                                |
|                                      | - Costs of the Zaruma sale                            | (1,586)                     | (1,586)                              |
| 2.6                                  | <b>Net cash from / (used in) investing activities</b> | <b>(3,468)</b>              | <b>(533)</b>                         |

|           |   |               |               |
|-----------|---|---------------|---------------|
| <b>3.</b> | <b>Cash flows from financing activities</b>   |               |               |
| 3.1       | Proceeds from issues of equity securities (excluding convertible debt securities)       | 12,986        | 12,986        |
| 3.2       | Proceeds from issue of convertible debt securities                                      | -             | -             |
| 3.3       | Proceeds from exercise of options   | -             | -             |
| 3.4       | Transaction costs related to issues of equity securities or convertible debt securities | (105)         | (105)         |
| 3.5       | Proceeds from borrowings  | -             | 4,463         |
| 3.6       | Repayment of borrowings   | -             | (3,701)       |
| 3.7       | Transaction costs related to loans and borrowings                                       | -             | (55)          |
| 3.8       | Dividends paid  | -             | -             |
| 3.9       | Other (provide details if material)   | -             | -             |
| 3.10      | <b>Net cash from / (used in) financing activities</b>                                   | <b>12,881</b> | <b>13,588</b> |

|           |  |         |         |
|-----------|--|---------|---------|
| <b>4.</b> | <b>Net increase / (decrease) in cash and cash equivalents for the period</b> |         |         |
| 4.1       | Cash and cash equivalents at beginning of period                             | 961     | 3,272   |
| 4.2       | Net cash from / (used in) operating activities (item 1.9 above)              | (1,891) | (7,718) |

For personal use only





| Consolidated statement of cash flows |  | Current quarter<br>\$US'000 | Year to date (12 months)<br>\$US'000 |
|--------------------------------------|--|-----------------------------|--------------------------------------|
| 4.3                                  | Net cash from / (used in) investing activities (item 2.6 above)  | (3,468)                     | (533)                                |
| 4.4                                  | Net cash from / (used in) financing activities (item 3.10 above) | 12,881                      | 13,588                               |
| 4.5                                  | Effect of movement in exchange rates on cash held                | 267                         | 141                                  |
| 4.6                                  | <b>Cash and cash equivalents at end of period</b>                | <b>8,750</b>                | <b>8,750</b>                         |

| 5.  | Reconciliation of cash and cash equivalents<br>at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts | Current quarter<br>\$US'000 | Previous quarter<br>\$US'000 |
|-----|--|-----------------------------|------------------------------|
| 5.1 | Bank balances  | 8,750                       | 963                          |
| 5.2 | Call deposits  | -                           | -                            |
| 5.3 | Bank overdrafts  | -                           | -                            |
| 5.4 | Other (provide details)  | -                           | -                            |
| 5.5 | <b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>   | <b>8,750</b>                | <b>963</b>                   |

**6. Payments to related parties of the entity and their associates**

- 6.1 Aggregate amount of payments to related parties and their associates included in item 1
- 6.2 Aggregate amount of payments to related parties and their associates included in item 2

| Current quarter<br>\$US'000 |
|-----------------------------|
| 132                         |
| -                           |

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments



## 7. Financing facilities

Note: the term "facility" includes all forms of financing arrangements available to the entity.

Add notes as necessary for an understanding of the sources of finance available to the entity.

|                                       | Total facility amount at quarter end<br>\$US'000 | Amount drawn at quarter end<br>\$US'000 |
|---------------------------------------|--|---|
| 7.1 Loan facilities                   | 1,143  | 1,143                                   |
| 7.2 Credit standby arrangements       | -  | -                                       |
| 7.3 Other (please specify)            | -  | -                                       |
| 7.4 <b>Total financing facilities</b> | 1,143  | 1,143                                   |

7.5 **Unused financing facilities available at quarter end** -

7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.

### Sophisticated and Professional Investors (unsecured):

The material terms of the loan facility are:

- Amount: AUD \$1,500,000
- Interest: 15% interest per annum payable at the repayment date.
- Security: Unsecured
- Repayment: the Company must repay the Loan Amount it has drawn and all other amounts accrued or outstanding by 28 February 2022 (Termination Date).

| 8.  | Estimated cash available for future operating activities  | \$USD'000 |
|---|---|-----------|
| 8.1   | Net cash from / (used in) operating activities (item 1.9)   | (1,891)   |
| 8.2   | (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))  | (2,516)   |
| 8.3   | Total relevant outgoings (item 8.1 + item 8.2)  | (4,407)   |
| 8.4   | Cash and cash equivalents at quarter end (item 4.6)   | 8,750     |
| 8.5   | Unused finance facilities available at quarter end (item 7.5)   | -         |
| 8.6   | Total available funding (item 8.4 + item 8.5)   | 8,750     |
| 8.7   | <b>Estimated quarters of funding available (item 8.6 divided by item 8.3)</b>   | 1.98      |
| <i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i> |   |           |
| 8.8   | If item 8.7 is less than 2 quarters, please provide answers to the following questions:   |           |
| 8.8.1   | Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not? |           |
| Answer:   |   |           |
| No. The Company has incurred restructuring costs for its operations in Ecuador during the quarter which are expected to be significantly less going forward.  |   |           |



8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer:

The Company expects to receive US\$7,500,000 prior to June 30, 2022 from the sale of its Zaruma project to Pelorus and a further US\$800,000 from the sale of its assets in Peru.

In addition the company holds TSX listed shares in Silver X Mining Corp valued at approximately US\$300,000.

*Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.*

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer:

Yes. Refer to above.

*Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.*

## Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: .....31 January 2022.....

Authorised by: .....The Board of Titan Minerals Limited.....  
(Name of body or officer authorising release – see note 4)

## Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: *Exploration for and Evaluation of Mineral Resources* and AASB 107: *Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".





5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.

For personal use only