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# EXCELLENT GOLD-SILVER HITS CONTINUE TO EXPAND DYNASTY

## **Key Highlights**

- Latest Cerro Verde diamond drill results grow gold-silver mineralisation outside of recently published Dynasty Mineral Resource estimate of 43.54Mt at 2.23 g/t Au, 15.7 g/t Ag for 3.12 Moz gold, 21.98 Moz silver¹
- Drilling between Brecha-Comanche and Kaliman porphyry targets at the Cerro Verde prospect, has confirmed significant gold-silver mineralisation from shallow depths:

CVDD23-106:

■ 12.96m² @ 3.39 g/t Au, 18.46 g/t Ag from 96.04m

Including 5.58m @ 6.43 g/t Au, 29.22 g/t Ag from 96.04m &

2.85m @ 6.03 g/t Au, 7.95 g/t Ag from 128.15m

*Including 0.3m* @ *55.7 g/t Au, 3.64 g/t Ag* from 128.15m.

Drilling at Resbolosa target at the Cerro Verde prospect has confirmed extensions to gold mineralisation from shallow depths:

CVDD23-103:

- 5.75m @ 1.55 g/t Au, 2.38 g/t Ag from 50.13m &
- 2.03m @ 2.63 g/t Au, 17.53 g/t Ag from 78.77m.

CVDD23-105:

- 4.00m @ 2.20 g/t Au, 15.72 g/t Ag from 130.0m
- Drilling at Kaliman target at the Cerro Verde prospect, has revealed further broad zones of anomalous epithermal gold mineralisation from shallow depths:

KLDD23-007:

- **3.87m a 1.06 g/t Au, 7.13 g/t Ag** from 25.13m
- 1.94m @ 2.61 g/t Au, 4.42 g/t Ag from 76.06m
- Geochemical sampling and coincident detailed mapping at Papayal and Trapichillo prospects rapidly advancing
- Preparations to test high grade resource growth areas now well advanced with drilling set to commence at Dynasty in the coming weeks

<sup>&</sup>lt;sup>1</sup> Comprised of:

<sup>•</sup> Indicated Resources of 18.09Mt at 2.09g/t Au, 14.73g/t Ag for 1.21 Moz gold and 8.57 Moz silver; and

<sup>•</sup> Inferred Resources of 25.44Mt at 2.33g/t Au, 16.40g/t Ag for 1.90 Moz gold and 13.41 Moz silver.

<sup>&</sup>lt;sup>2</sup> Note that these widths are downhole, and are not always representative of true widths, please refer to Appendix A for full details on significant intercepts.

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#### Titan's CEO Melanie Leighton commented:

"These latest drill results further demonstrate the opportunity to substantially grow the epithermal gold-silver system at Dynasty, with additional shallow high grade gold intersected at Cerro Verde.

"There are several areas along the Dynasty 9-kilometre vein system that have never been explored nor drilled, representing an excellent growth opportunity.

"The Company has recently gained access to these new unexplored areas, and exploration workstreams are being deployed which are expected to unveil the potential for further shallow vein hosted gold mineralisation.

"We expect several new targets to be defined from the surface mapping and geochemistry programs currently underway, with drilling to test these targets set to commence in early September,

"We are looking forward to solid news flow and exciting drill results in the coming months and will be targeting a resource upgrade in Q1 2024 following completion of our first phase of resource growth drilling."

## Dynasty Project Drilling Results and Activities Update

Titan Minerals Limited (**Titan** or the **Company**) (**ASX:TTM**) is pleased to provide an update on exploration activities at the Cerro Verde prospect, where a recently completed drilling program tested the Brecha-Comanche, Resbolosa and Kaliman targets, at the Company's 100% held Dynasty Gold Project (**Dynasty**) in southern Ecuador.

In total 15 diamond holes have been completed for a 3,796m at the Cerro Verde prospect. Results for the first 7 holes were reported on 3 July, with results of the remaining 8 holes detailed below.

Important to note that the results included in this announcement were not included in the recently completed Mineral Resource Estimate (MRE), hence representing additions to the published Dynasty MRE.





Left: Plate 1. CVDD23-105: 131.8m- Resbolosa brecciated rock with irregular quartz veinlets, and filling of quartz inside the fractures. Right: Plate 2. CVDD23-106: 128.2m- Resbolosa mineralised vein with pyrite and sphalerite sulphide mineralisation.

#### Brecha-Comanche - Kaliman Overlapping Systems

One diamond hole (CVDD23-106) was completed to test the potential for overlapping epithermal gold and copper porphyry mineralisation between the Brecha-Comanche and Kaliman prospects, where previous drilling had intersected **7.27m** @ **9.89** g/t Au, **28.0** g/t Ag, **0.24** % Cu from **118.78m** in CVD033.

CVDD23-106 was successful in extending wide, high grade gold, silver and anomalous copper mineralisation an additional 30 metres laterally and 50 metres up-dip, from mineralisation intersected in CVD033, with significant results including:

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## CVDD23-106:

- 12.96m³ @ 3.39 g/t Au, 18.46 g/t Ag from 96.04m, including 5.58m @ 6.43 g/t Au, 29.22 g/t Ag from 96.04m &
- 2.85m @ 6.03 g/t Au, 7.95 g/t Ag from 128.15m, including 0.3m @ 55.7 g/t Au, 3.64 g/t Ag from 128.15m.

This wide and high grade gold and silver mineralisation intersected in CVDD23-106 and CVD033 remains open in several directions, and extensions to this mineralisation will be targeted in future resource growth drilling programs.

#### Kaliman Porphyry Target

An additional four diamond holes (KLDD23-005 - KLDD23-008) were designed to test the extent of epithermal gold within the Kaliman porphyry. Pleasingly these holes were successful in returning broad anomalous gold mineralisation from shallow depths, with significant results including:

#### KLDD23-007:

- 3.87m @ 1.06 g/t Au, 7.13 g/t Ag from 25.13m, within a broader intercept of 28.9m @ 0.45 g/t Au, 2.02 g/t Ag, &
- 1.94m @ 2.61 g/t Au, 4.42 g/t Ag from 76.06m, within a broader intercept of 16.94m @ 0.82 g/t Au, 2.00 g/t Ag.

### KLDD23-008:

- 56m @ 0.15 g/t Au, 0.76 g/t Ag, 0.05% Cu from surface, &
- **20.41m** @ **0.26 g/t Au**, **0.82 g/t Ag**, **0.07% C**u from 69.86m.

There are several other epithermal veins that have been mapped and defined by trenching at surface at the Kaliman Porphyry target. The Company will now assess and rank the priority of drilling these veins and adding further epithermal gold resources in this area of the project.

#### Resbolosa Vein Target

Three diamond drillholes were designed to test extensions to the Resbolosa Vein, where previous drilling had intersected **17.09m a 4.03 g/t Au**, **52.53 g/t Ag** from 50.98m in diamond hole CVD039.

Lithology at Resbolosa is dominated by volcaniclastic rocks, in some areas exhibiting strong argillic alteration (kaolinite-smectite). Tourmaline breccias are also evident in core, and strong re-brecciation is also observed.

Mineralisation is associated with irregular milky white quartz veining and pyrite, sphalerite and traces of galena and chalcocite mineralisation within breccia zones. Veins are also developed at contact zones between the breccia and volcaniclastic unit, where the tourmaline quartz breccia is cut by quartz veinlets with pyrite mineralisation, traces of chalcocite and arsenopyrite.

Drilling was designed to test extensions to outcropping epithermal veins and cross-cutting structures, highlighting a dilational zone and associated brecciation. Significant drill results include:

#### CVDD23-103:

- 5.75m @ 1.55 g/t Au, 2.38 g/t Ag from 50.13m &
- 2.03m @ 2.63 g/t Au, 17.53 g/t Ag from 78.77m.

<sup>&</sup>lt;sup>3</sup> Note that these widths are downhole, and are not always representative of true widths, please refer to Appendix A for full details on significant intercepts.

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## CVDD23-105:

4.00m @ 2.70 g/t Au, 15.72 g/t Ag from 130.0m, within a broader intercept of 16.79m @ 0.77 g/t Au, 5.12 g/t Ag

While drilling was successful in extending mineralisation approximately 40 metres along strike. It was noted that there was less brecciation as compared to historical drillhole CVD039. Titan geologists will review new information gained from these most recent drillholes to target further high grade ore shoots and associated brecciation at Resbolosa.

## **Dynasty Next Steps**

Following completion of the Dynasty maiden JORC Compliant MRE<sup>4</sup> the company has identified several areas for rapid resource growth which are currently being prioritised for upcoming resource drilling programs. The following outlines the forward work programs for the Dynasty Project.

- Determine ultimate size of Dynasty mineral system- drill test lateral and vertical extensions
  to the currently defined vein system over the current 9km of strike
- Resource growth- by adding new areas into the estimate with a focus on the more advanced Cerro Verde and Iguana prospects
- Drill high grade extensions at Papayal and Trapichillo multiple parallel and ramifying veins
  have been exposed with high-grade gold, silver and high silver:gold ratios evident with
  textures typical of low-sulphidation, boiling zone environments
- Regional exploration to identify new targets- surface mapping and geochemical sampling underway across 9km x 2km vein corridor to define priority targets for exploration drilling
- Surface soil geochemical sampling and mapping underway at Papayal and Trapachillo to identify extensions to vein system
- **Gradient-array IP survey** to assist in the mapping and drill targeting of sulphide-rich veins at depth, and in valleys and under a veneer of vegetation and soil cover
- Initial mine feasibility studies and baseline works- for future standalone development options with both open pit and underground mining scenarios with onsite mineral processing

The Company looks forward to providing further updates as surface mapping, geochemical sampling and drilling programs are completed and results are received.

<sup>&</sup>lt;sup>4</sup> Refer to ASX Release dated 6 July 2023



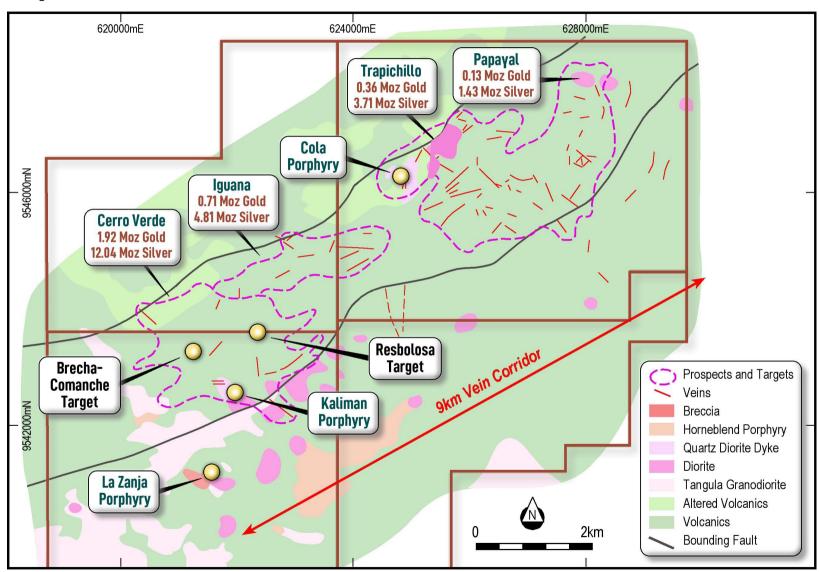


Figure 1. Dynasty Gold Project displaying simplified geology and prospect locations



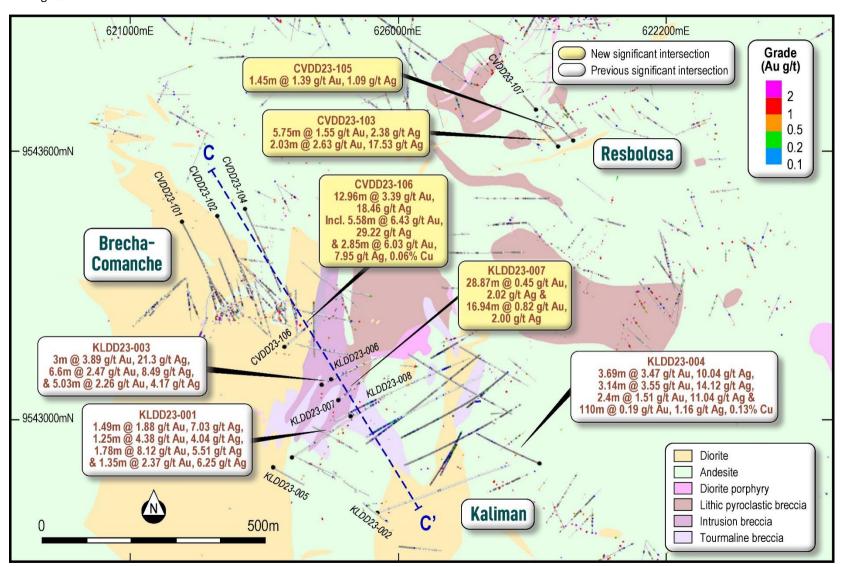


Figure 2. Cerro Verde plan view displaying simplified geology, drilling (Au g/t) and locations of cross sections in subsequent figure.



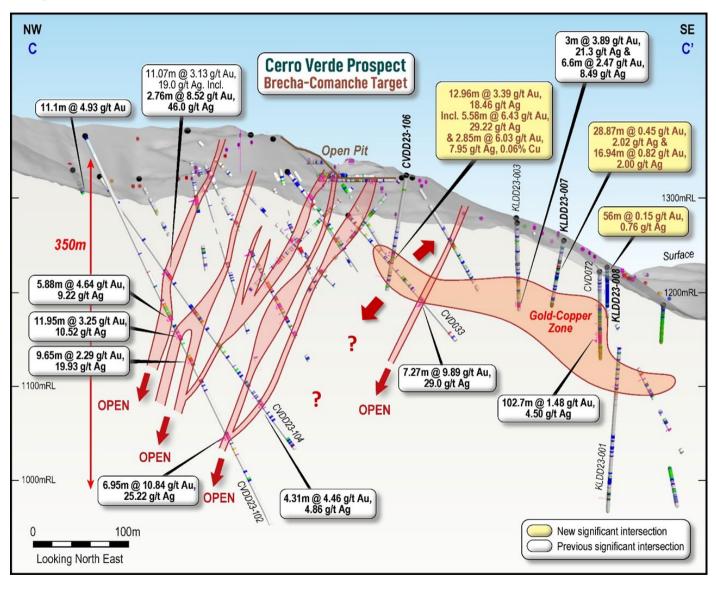


Figure 3. Brecha-Comanche long sectionC-C' displaying drilling, interpreted mineralisation and significant intersections

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## 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.

Located in a major flexure of the Andean Terrane, the Dynasty Gold Project is situated within a corridor of mineralisation extending from Peru through northern Ecuador that is associated with early to late Miocene aged intrusions. The majority of porphyry copper and epithermal gold deposits in southern Ecuador are associated with magmatism in this age range, with a number of these younger intrusions located along the margin of the extensive Cretaceous aged Tangula Batholith forming a favourable structural and metallogenic corridor for intrusion activity where Titan minerals holds a significant land position in southern Ecuador.

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.

Interpretation and estimation of the Mineral Resource was based on data from 394 diamond drill holes (63,342.54 metres), 85 channels (2,089.02 metres) and 1,599 trenches (6,743.54 metres). Drilling and trenching campaigns were completed by Titan Minerals Ltd in 2021 and 2023 and in several phases of drilling by previous project operators from 2007 to 2019.

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.

The MRE provides a solid foundation for future resource growth and feasibility studies, in what Titan believes is a natural progression for the Dynasty Project, which has considerable exploration upside that remains to be tested.

Approximately 84% of Indicated and 64% of Inferred Mineral Resources reported ≥0.5 g/t Au are within 160m from surface. The Cerro Verde prospect contains the bulk of the resource, and also has the highest component of Indicated resources. The larger resource and higher classification at Cerro Verde are largely due to Titan's resource development work programs dedicated to this part of the project, including infill and validation drilling, surface mapping, relogging of historical drill core and QAQC workstreams.



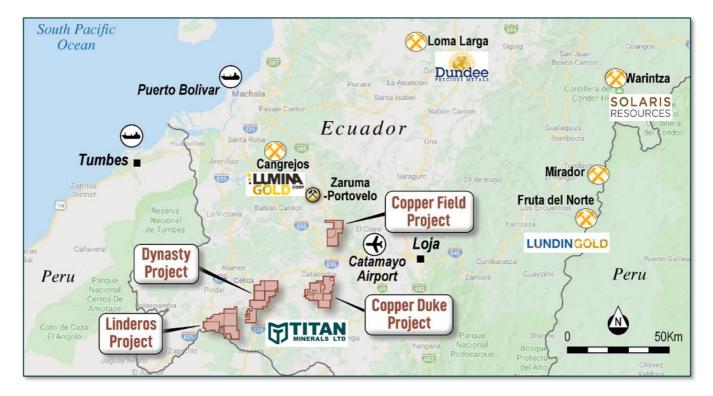


Figure 4. Titan Minerals southern Ecuador Projects, peer deposits and surrounding infrastructure

## **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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## 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.

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## **APPENDIX A**

Table 1. Cerro Verde Significant Drill Intersections

| Target              | Hole ID        |           | From<br>(m) | To<br>(m) | Width<br>(m) | Est.<br>TW<br>(m) | Au<br>(g/t) | Ag<br>(g/t) | Cu<br>(%) |
|---------------------|----------------|-----------|-------------|-----------|--------------|-------------------|-------------|-------------|-----------|
| Resbolosa           | CVDD23-103     |           | 15.62       | 17.00     | 1.38         | 0.79              | 0.94        | 0.57        | -         |
|                     |                |           | 32.00       | 33.40     | 1.40         | 0.90              | 1.07        | 1.39        | -         |
|                     |                |           | 50.13       | 55.88     | 5.75         | 4.07              | 1.55        | 2.38        | -         |
|                     |                |           | 78.77       | 80.80     | 2.03         | 1.16              | 2.63        | 17.53       | -         |
|                     |                |           | 95.00       | 95.64     | 0.64         | 0.32              | 2.26        | 8.79        | -         |
|                     | CVDD23-105     |           | 11.00       | 12.45     | 1.45         | 0.93              | 1.39        | 1.09        | -         |
|                     |                |           | 34.88       | 35.29     | 0.41         | 0.24              | 1.26        | 0.75        | -         |
|                     |                |           | 53.00       | 54.72     | 1.72         | 1.32              | 0.74        | 6.46        | -         |
|                     |                |           | 121.21      | 138.00    | 16.79        | 11.87             | 0.77        | 5.12        | -         |
|                     |                | including | 130.00      | 134.00    | 4.00         | 1.37              | 2.20        | 15.72       | -         |
|                     | CVDD23-107     |           | 44.44       | 44.85     | 0.41         | 0.26              | 1.23        | 2.78        | -         |
|                     |                |           | 51.00       | 52.00     | 1.00         | 0.71              | 1.34        | 0.62        | -         |
|                     |                |           | 75.75       | 78.00     | 2.25         | 1.13              | 0.52        | 1.90        | -         |
| Brecha-<br>Comanche | CVDD23-106     |           | 16.00       | 20.54     | 4.54         | 2.60              | 0.31        | 2.20        | 0.05      |
|                     |                |           | 84.00       | 88.00     | 4.00         | 2.57              | 0.78        | 6.12        | 0.01      |
|                     |                |           | 96.04       | 109.00    | 12.96        | 9.93              | 3.39        | 18.46       | 0.02      |
|                     |                | including | 96.04       | 101.62    | 5.58         | 2.79              | 6.43        | 29.22       | 0.03      |
|                     |                |           | 128.15      | 131.00    | 2.85         | 2.18              | 6.03        | 7.95        | 0.06      |
|                     |                | including | 128.15      | 128.45    | 0.30         | 0.23              | 55.70       | 3.64        | 0.03      |
| Kaliman             | KLDD23-007     |           | 0           | 25.13     | 25.13        | 12.57             | 0.11        | 0.95        | 0.01      |
|                     |                |           | 25.13       | 54        | 28.87        | 16.56             | 0.45        | 2.02        | 0.02      |
|                     |                | including | 25.13       | 29        | 3.87         | 2.22              | 1.06        | 7.13        | 0.01      |
|                     |                |           | 76.06       | 93        | 16.94        | 8.47              | 0.82        | 2.00        | 0.03      |
|                     |                | including | 76.06       | <i>78</i> | 1.94         | 0.82              | 2.61        | 4.42        | 0.02      |
|                     | KLDD23-008     |           | 0           | 56        | 56           | 28.00             | 0.15        | 0.76        | 0.05      |
|                     | timated True W |           | 69.86       | 90.27     | 20.41        | 15.63             | 0.26        | 0.82        | 0.07      |

Est. TW - Estimated True Width.

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## Table 2. Cerro Verde Drillhole Details

| Target          | Hole ID    | Easting<br>(UTM) | Northing<br>(UTM) | Elevation<br>(m) | EOH<br>(m) | Azimuth<br>(°) | Dip<br>(°) |
|-----------------|------------|------------------|-------------------|------------------|------------|----------------|------------|
| Resbolosa       | CVDD23-103 | 621,959          | 9,543,608         | 1,408            | 162        | 319            | -60        |
|                 | CVDD23-105 | 621,992          | 9,543,622         | 1,381            | 163        | 316            | -50        |
|                 | CVDD23-107 | 621,909          | 9,543,691         | 1,386            | 84         | 320            | -59        |
| Brecha-Comanche | CVDD23-106 | 621,347          | 9,543,160         | 1,262            | 143        | 050            | -57        |
| Kaliman         | KLDD23-005 | 621,321          | 9542890           | 1,227            | 122        | 120            | -50        |
|                 | KLDD23-006 | 621,451          | 9543087           | 1,218            | 111        | 064            | -47        |
|                 | KLDD23-007 | 621,467          | 9543041           | 1,195            | 106        | 050            | -48        |
|                 | KLDD23-008 | 621,494          | 9543005           | 1,167            | 90         | 063            | -45        |

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## **APPENDIX B**

# Dynasty Project - 2012 JORC Table 1

# Section 1 Sampling Techniques and Data

| Criteria               | JORC Code explanation  | Commentary  |
|------------------------|--|---|
| Sampling<br>techniques | <ul> <li>Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g., 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed information.</li> </ul> | <ul> <li>Diamond drilling method was used to obtain HTW and NTW core (71.4/56.23 mm diameter respectively) for density and chemical analyses. ½ or ¼ core was submitted for analysis.</li> <li>Downhole survey and core orientation tools are used, Diamond core is halved with a diamond saw to ensure a representative sample.</li> <li>Channel sampling is completed as representative cut samples across measured intervals cut with hammer or hammer and chisel techniques.</li> <li>Samples were crushed to better than 70% passing a 2mm mesh and split to produce a 250g charge pulverised to 200 mesh to form a pulp sample.</li> <li>50g charges were split from each pulp for fire assay for Au with an atomic absorption (AA) finish and samples exceeding 10g/t Au (upper limit) have a separate 0g charge split and analysed by fire assay with a gravimetric finish. Samples returning &gt;10ppm Au from the AA finish technique are re-analysed by 30g fire assay for Au with a gravimetric finish.</li> <li>An additional charge is split from sample for four acid digests with ICP-MS reporting a 48-element suite.</li> <li>Within the 48 elements suite, overlimit analyses of a 5-element suite are performed with an ore grade technique (ICP-AES) if any one element for Ag, Pb, Zn, Cu, Mo exceeds detection limits in the ICP-MS method.</li> </ul> |
| Drilling<br>techniques | <ul> <li>Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger,<br/>Bangka, sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of<br/>diamond tails, face-sampling bit, or other type, whether core is oriented and if so, by<br/>what method, etc).</li> </ul>   | <ul> <li>Drilling HTW diameter core with standard tube core barrels retrieved by wire line, reducing to NTW diameter core as required at depth.</li> <li>Drill core is oriented by Reflex ACT III and True Core tools.</li> </ul>   |
| Drill sample recovery  | Method of recording and assessing core and chip sample recoveries and results assessed.  | Diamond sample recovery is recorded on a run-by-run basis during drilling with<br>measurements of recovered material ratioed against drill advance.   |
|                        | <ul> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether</li> </ul>   | <ul> <li>Diamond core is split in weathered material, and in competent unweathered/fresh rock<br/>is cut by a diamond saw to maintain a representative sample for the length of the<br/>sample interval.</li> </ul>   |
|                        | sample bias may have occurred due to preferential loss/gain of fine/coarse material.   | <ul> <li>No correlation between sample recovery and grade is observed.</li> </ul>   |
| Logging                | <ul> <li>Whether core and chip samples have been geologically and geotechnically logged<br/>to a level of detail to support appropriate Mineral Resource estimation, mining</li> </ul>   | Diamond core samples are logged in detail, with descriptions and coded lithology for<br>modelling purposes, with additional logging comprised of alteration, geotechnical,  |





| Criteria  | JORC Code explanation  | Commentary  |  |  |  |
|---|--|---|--|--|--|
|   | <ul> <li>studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>  | <ul> <li>recovery, and structural logs including measurements based on core orientation marks generated from a Reflex ACTIII downhole survey tool.</li> <li>Logging is predominantly qualitative in nature but including visual quantitative assessment of sulphide and quartz content included in text comments.</li> <li>Core photographs are systematically acquired for whole core with sample intervals, orientation line prior and after the sampling in both wet and dry form.</li> <li>The total lengths of all reported drill holes have been logged geologically and data is uploaded to a self-validating database. ½ cut and ¼ cut core material is retained from diamond drilling for re-logging and audit purposes.</li> </ul>  |  |  |  |
| Sub-sampling<br>techniques and<br>sample<br>preparation | <ul> <li>If core, whether cut or sawn and whether quarter, half or all cores taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality, and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul> | <ul> <li>Diamond core is split or cut in weathered profile depending on hardness and competency of the core and cut with a diamond saw in fresh rock. Weathered, faulted, and fractured diamond core, prior to cutting, are docked, and covered with packing tape to ensure a representative half sample is taken.</li> <li>A cutline on core is systematically applied for cutting and portion of core collected for analysis is systematic within each hole. Diamond core sample recovery are reported as being completed in accordance with best practices for the time of acquisition and considered to be appropriate and of good quality.</li> <li>Sample size studies have not been conducted but sample size used are typical of methods used for other Andean deposits of similar mineralisation styles.</li> </ul>  |  |  |  |
| Quality of assay<br>data and<br>laboratory tests        | <ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.</li> </ul>   | <ul> <li>Assaying and Laboratory procedures reported are completed by certified independent labs and considered to be appropriate and in accordance with best practices for the type and style of mineralisation being assayed for. Gold Fire Assay technique used is a total recovery technique for gold analysis. This technique is considered an appropriate method to evaluate total gold and silver content of the samples.</li> <li>No geophysical tools used in relation to the reported exploration results.</li> <li>In addition to the laboratory's own quality control ("QC") procedure(s), Titan Minerals Ltd- regularly inserts its own Quality assurance and QC samples, with over 15% of samples in reported results corresponding to an inserted combination of certified reference materials (standards), certified blank material, field duplicate, lab duplicates (on both fine and coarse fraction material.</li> </ul> |  |  |  |
| Verification of<br>sampling and<br>assaying             | <ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>  | <ul> <li>Reported intersections are logged by professional geologists in Australia and data validated by a senior geologist in Ecuador.</li> <li>Twin holes have not been used in the reported exploration results. The use of twinned holes is anticipated in follow-up drilling.</li> <li>Original laboratory data files in CSV and locked PDF formats are stored together with the merged data.</li> <li>All drilling, and surface data are stored in a self-validating MX Deposit geological</li> </ul>   |  |  |  |





| Criteria   | JORC Code explanation  | Commentary  |  |  |  |
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|  |  | database.   |  |  |  |
|  |  | No adjustment to data is made in the reported results   |  |  |  |
| Location of data points  | <ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole<br/>surveys), trenches, mine workings and other locations used in Mineral Resource<br/>estimation.</li> </ul>  | <ul> <li>Reported drill collars and channel samples are located with an RTK GPS survey unit<br/>with sub-centimetre reporting for the purpose of improved confidence in resource<br/>estimation work. A gyroscopic survey tool is used for downhole surveys.</li> </ul>   |  |  |  |
|  |  | All surveyed data is collected and stored in WGS84 datum.   |  |  |  |
|  | Specification of the grid system used  | Topographic control is ground survey quality and reconciled against Drone platform  |  |  |  |
|  | Quality and adequacy of topographic control.   | survey data with 1m pixel resolution. Assessed to be adequate for the purpose of resource estimation  |  |  |  |
| Data spacing and distribution                                    | <ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing, and distribution is sufficient to establish the degree of</li> </ul>  | Data spacing for reported diamond drilling varies by prospect, targeting a nominal 80m lateral spacing and 80m vertical spacing for data acquisition.   |  |  |  |
|  | geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.  | <ul> <li>Reported Channel sampling is collected on 10m to 20m spacing depending on<br/>resolution of structural information deemed necessary by the geology team.</li> </ul>  |  |  |  |
|  | Whether sample compositing has been applied.   | <ul> <li>Data spacing is anticipated to support mineral resource estimation for the indicated<br/>and inferred categories, with data spacing and distribution for higher confidence<br/>resource estimation categories to be defined with further modelling and geostatistical<br/>analysis work.</li> </ul>  |  |  |  |
|  |  | No Sample compositing has been applied in reported exploration results.   |  |  |  |
| Orientation of<br>data in relation<br>to geological<br>structure | Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.  If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. | • The orientation of diamond drilling and trenching is perpendicular to mapped orientation of primary vein and porphyry target observed in outcrop where possible. Drilling is often completed on multiple azimuths as fan drilling with multiple holes collared from a single drill site to minimise surface disturbance, which will result in some oblique intercepts to vein orientations. The true thickness of intercepts will be accounted for following structural analysis of oriented core and 3D modelling of veins. All results in relation to this report are drilled thickness and should not be interpreted as true thickness at this time. |  |  |  |
|  |  | No bias is considered to have been introduced by the existing sampling orientation.   |  |  |  |
| Sample security  | The measures taken to ensure sample security.  | <ul> <li>Samples were collected by Titan Minerals geologists and held in a secure yard prior to shipment for laboratory analysis. Samples are enclosed in polyweave sacks for delivery to the lab and weighed individually prior to shipment and upon arrival at the lab. Sample shipment is completed through a commercial transport company with closed stowage area for transport.</li> </ul>  |  |  |  |
| Audits or reviews  | The results of any audits or reviews of sampling techniques and data.  | <ul> <li>No audits or reviews of reported data completed outside of standard checks on<br/>inserted QAQC sampling.</li> </ul>   |  |  |  |

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# Section 2 - Reporting of Exploration Results

| Criteria                                      | J | ORC Code explanation   | Commentary   |
|---|---|--|--|
| Mineral tenement<br>and land tenure<br>status | • | Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. | <ul> <li>Titan Minerals Ltd, through its indirect wholly owned Ecuadorian subsidiaries, holds portfolio of exploration properties in the Loja Province of Ecuador. Amongst these, Tit holds a 100% interest in the Pilo 9, Zar, Zar 1, Zar 3A and Cecilia 1 concessions formi the Dynasty Project and totalling an area of 13,909 hectares.</li> </ul>   |
|   | • | The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.   | <ul> <li>Mineral concessions in Ecuador are subject to government royalty, the amount of whi varies from 3% to 4% depending on scale of operations and for large scale operatio (&gt;1,000tpd underground or &gt;3,000tpd open pit) is subject to negotiation of mineral/mining agreement.</li> </ul>  |
|   |   |  | <ul> <li>Pilo 9, Zar and Zar 1 are subject to a 3% royalty payable to the Ecuador Government part of the Small Scale Mine Licensing regime currently issued in favour of the Dynas Goldfield Project but may be subject to change in the event economic studies af exploration indicate a need to apply for a change of regime.</li> </ul>   |
|   |   |  | <ul> <li>Concessions, Zar 3A and Cecilia 1 have not yet completed the environmental permitti<br/>process and require the grant of an Environmental Authorisation.</li> </ul>   |
|   |   |  | <ul> <li>Mineral concessions require the holder to (i) pay an annual conservation fee per hectar         (ii) provide an annual environmental update report for the concessions including deta         of the environmental protection works program to be followed for the following yes         These works do not need approval; and (iii) an annual report on the previous yea         exploration and production activity. Mineral Concessions are renewable         the Ecuadorian Ministry of Oil, Mining and Energy in accordance with the Mining Law         such terms and conditions as defined in the Mining Law.</li> </ul> |
|   | • | Acknowledgment and appraisal of exploration by other parties.  | Dynasty Gold Project Exploration done by other parties set out in further detail in the Tita ASX release dated 19 May 2020, and summarised below:  |
| Exploration done<br>by other parties          |   |  | <ul> <li>1977, the Spanish-Ecuadorian joint venture company, Enadimsa, claimed 1,350ha<br/>the La Zanja (Cerro Verde) area for exploration - no results included in reporting.</li> </ul>  |
|   |   |  | <ul> <li>During the 1970s the United Nations explored the "Curiplaya" area, 2 km east of t<br/>Dynasty Project. Copper and gold were detected in small quantities, data not include<br/>in reporting.</li> </ul>   |
|   |   |  | <ul> <li>1991–92, BHP Exploration Ltd. covered the general area with concessions, but t<br/>tenements eventually lapsed after minimal work.</li> </ul>   |
|   |   |  | <ul> <li>2001 to 2003, a private prospecting company, Ecuasaxon, undertook investigations the general area and discovered anomalous gold and silver in quartz-sulphide veins what is now the concession area.</li> </ul>   |
|   |   |  | <ul> <li>2003 until 2007 Dynasty Mining and Metals (later Core Gold) completed mapping, limit<br/>ground geophysical surveys and exploration sampling activity including 201 drill hol<br/>totalling 26,733.5m and 2,033 rock channel samples were taken from 1,161 surfa<br/>trenches at Cerro Verde, Iguana Este, Trapichillo and Papayal in support of a maid-<br/>resource estimation.</li> </ul>  |
|   |   |  | <ul> <li>2008 to 2009, the Ecuadorian Government introduced an exploration moratorium, whe<br/>on April 18, 2008, Ecuador's Constitutional Assembly passed a Constituent Manda</li> </ul>  |

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| Criteria                  | JORC Code explanation  | Commentary   |
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|                           |  | resolution (the "Mining Mandate"), which provided, among other provisions, for the suspension of mineral exploration activities for 180 days, or until a new Mining Act was approved. The Mining Act was published in late January 2009. The mining regulations to supplement and provide rules which govern the Mining Act were issued in November 2009, after which time the Mining Act and Regulations (collectively, the "Mining Law") were enacted.                               |
|                           |  | <ul> <li>2017 to 2020 Core Gold Inc. (formerly Dynasty Mining and Metals) commenced small<br/>scale mining on a small portion of the Dynasty Project. Operations exposed a number<br/>of veins of the Canadian NI 43-101 compliant resource estimate, and operations<br/>discovered several veins of varying orientations not previously identified in drill and<br/>trench exploration activities requiring further exploration activity to quantify.</li> </ul>                      |
| Geology                   | Deposit type, geological setting, and style of mineralisation.   | <ul> <li>Regionally, the Dynasty gold project lies within the compressional Inter-Andean Graben that is bounded by regional scale faults. The graben is composed of thick Oligocene to Miocene aged volcano- sedimentary sequences that cover the Chaucha, Amotape and Guamote terrains. This structural zone hosts several significant epithermal, porphyry, mesothermal, S-type granitoid, VHMS and ultramafic/ophiolite precious metal and base metal mineral deposits.</li> </ul>  |
|                           |  | <ul> <li>At the project scale, the intermediate volcanic hosted mineralised veins mainly occur along a faulted zone near and sub-parallel to the contact with the Cretaceous aged Tangula Batholith that extends north from Peru and is found outcropping in the east and south of the concessions.</li> </ul>   |
|                           |  | <ul> <li>Porphyry intrusion style mineralisation hosting gold, silver and copper mineralisation has<br/>also been mapped and intersected by drilling by at the Kaliman porphyry within the<br/>Dynasty Project area.</li> </ul>  |
|                           |  | <ul> <li>Gold occurs in its native form along with sulphides, including pyrite, sphalerite, galena,<br/>arsenopyrite, marcasite, chalcopyrite and bornite.</li> </ul>  |
| Drill hole<br>Information | <ul> <li>A summary of all information material to the understanding of the exploration<br/>results including a tabulation of the following information for all Material drill<br/>holes:</li> </ul>  | <ul> <li>Tabulation of requisite information for all reported drilling results with significant<br/>intercepts validated by Titan geologists and referenced in this report are included in<br/>Appendix A of this report.</li> </ul>   |
|                           | <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul> | Total number of drill holes and trench sites included in this report and located in graphics included in the report.   |
|                           |  | <ul> <li>Material drill holes tabulated contain significant intercepts with gold grades exceeding<br/>0.1g/t gold and are included in Appendix A of this report. No drill holes are excluded<br/>from maps or graphics in the report and all drill locations with or without material<br/>significant intercepts are included in maps and diagrams. Tabulation of requisite<br/>information for all reported drilling results with significant intercepts announced in this</li> </ul> |
|                           |  |  |
| Data aggregation          | <ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum<br/>and/or minimum grade truncations (e.g., cutting of high grades) and cut-off</li> </ul>  | <ul> <li>No high-grade assay cut was applied to reported gold results. In the case of silver, the<br/>initial upper detection limit of the four-acid digest used is 100ppm, and an overlimit</li> </ul>  |

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| Criteria   | JORC Code explanation   | Commentary   |
|--|---|--|
| methods  | <ul> <li>grades are usually Material and should be stated</li> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul> | <ul> <li>analysis method with an upper detection limit of 1,500ppm is used.</li> <li>Lower cut-off for reported significant intercepts is 0.1g/t Au with up to 4m of internal dilution (results with &lt;0.1g/t Au or un-sampled intervals where null values are taken as a zero-gold grade in calculating significant intercepts) are allowed within a reported intercept.</li> <li>Significant Intercepts in Appendix A are reported for aggregate intercepts of sample intervals that are weight averaged by length of sample for results above a 0.1g/t gold cut-off.</li> <li>No metal equivalent reporting is applicable to this announcement</li> </ul> |
| Relationship<br>between<br>mineralisation<br>widths and<br>intercept lengths | <ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').</li> </ul>                       | <ul> <li>Reported intersections are measured sample lengths. Reported drill intersections are of unknown true width, further drilling and modelling of results is required to confirm the projected dip(s) of mineralised zones.</li> <li>Reported intercepts are drilled thickness and should not be interpreted as true thickness unless otherwise indicated</li> </ul>  |
| Diagrams   | <ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should<br/>be included for any significant discovery being reported These should include,<br/>but not be limited to a plan view of drill hole collar locations and appropriate<br/>sectional views.</li> </ul>   | Included in body of report as deemed appropriate by the competent person   |
| Balanced<br>reporting  | Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.   | <ul> <li>All material exploration results for drilling are included in this report, and location of all results are included in Figures provided in their entirety.</li> <li>All results above a 0.1g/t Au lower cut-off are included in this report when reporting bulk low grade intersections, and results above 0.5g/t Au are included when reporting high grade vein hosted gold mineralisation. No upper cut-off has been applied.</li> </ul>  |
| Other<br>substantive<br>exploration data                                     | Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.   | <ul> <li>No other available datasets are considered relevant to reported exploration results. Historical exploration results include orientation studies for ground magnetics, IP Geophysics, and soil sampling grids, however each of these surveys are limited in scale relative to the project and are not considered material to assess potential of the larger project area.</li> <li>Bulk density tests have been completed on areas related to the reported exploration results.</li> </ul>   |
| Further work   | <ul> <li>The nature and scale of planned further work (e.g., tests for lateral extensions of depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>  | assess open ended mineralisation on multiple mineralised corridors within the project area. Further mapping and sampling are to be conducted along strike of reported work to refine and prioritise targets for drill testing  |