TITAN MINERALS LTD

ASX ANNOUNCEMENT

23 November 2023

NEW VEIN SYSTEM CONFIRMED BY DRILLING AT PAPAYAL, DYNASTY GOLD PROJECT

Key Highlights

- **Papayal resource growth drilling underway, with 4 diamond holes for 394 metres completed, and a further 9 holes for 1,005 metres remaining of the initial resource drilling program**
- **Substantial "Julia" vein system recently discovered by mapping and surface geochemistry at Papayal has been confirmed by drilling with two holes intersecting wide zones of epithermal vein hosted mineralisation from shallow depths**
- **Cerro Verde Phase 1 2023 resource growth drilling complete, with 9 diamond holes for 970 metres drilled**

Titan's CEO Melanie Leighton commented:

"We are excited to have drill confirmed "Julia"- a substantial new gold vein system, discovered by Titan through recent surface mapping and geochemistry at the Papayal prospect.

"Discovery of this vein system has been made possible by the strong relationship established with the Papayal community, who have granted access, and are assisting with exploration work programs, enabling Titan to undertake drilling and realise Papayal's full potential.

"The Julia vein system is the first of many that are set to be discovered and drill tested in the Company's efforts to grow the already established 3.1Moz gold and 22Moz silver resource at the Dynasty Gold Project."



Plate 1: Drill rig in operation at the Julia target, Papayal prospect, November 2023

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Resource Growth Drilling Update

Titan Minerals Limited (**Titan** or the **Company**) (**ASX:TTM**) is pleased to provide an update on the Company's 100% held Dynasty Gold Project (**Dynasty**) in southern Ecuador, where resource growth drilling at the Cerro Verde prospect is now complete and drilling at the Papayal prospect is underway.

In total 9 diamond holes for 970 metres have been completed for the Cerro Verde prospect, while 4 diamond holes have been completed for 394 metres at the Papayal prospect.

Current resources at Papayal comprise **0.9Mt @ 4.54 g/t Au, 50.85 g/t Ag** for a contained 0.13 Moz gold, 1.43 Moz silver, representing a high-grade part of the 9 kilometre epithermal corridor at the Dynasty Gold Project and a high priority area for resource growth.

Initial drilling at Papayal was designed to test the recently discovered Julia target, which has never previously been drill tested. The Julia target is approximately 400 metres long by 200 metres wide and is located at a major structural intersection, where large-scale northeast, northwest and north-south trending faults are exposed, representing a damage zone with significant brecciation, veining and associated alteration.

The first two drillholes completed at the Julia target have successfully intersected wide zones of mineralisation in quartz ± carbonate ± base metal veins with halos of phyllic-argillic alteration from shallow depths. Vein styles observed include comb, crustiform, and brecciated quartz veinlets and carbonate veinlets with disseminated pyrite – galena – sphalerite ± chalcopyrite, and massive sulphide veinlets (mostly pyrite).

Successful drill confirmation of wide zones of mineralised veining and associated alteration from shallow depths at the Julia target represent potential high-grade resource additions, further validating the Company's strategy of targeting shallow high grade, high margin ounces.

The Julia target represents the first of several high priority extensional targets that are set to be tested in resource growth drilling at the Papayal prospect.

The Company has experienced some slight delays with earthworks required for drill access and drill platforms and subsequently the current resource growth drilling campaign is expected to be completed in Q1 2024, with a resource update to follow in Q2 2024.

Assays from drilling at Cerro Verde and the first holes from Papayal are expected to be returned in the coming 2-3 weeks.



Plate 1: Drill hole PPDD23-002 displaying typical vein styles observed in diamond core between 22m and 39m at the Julia target.



Plate 2: Drill hole PPDD23-001 epithermal vein intersected at 66.37m



Plate 3. Drill hole PPDD23-001 semi-massive sulphide-quartz vein intersected at 88.57m

The below table provides qualitative descriptions of veins and associated mineralisation and alteration assemblages intersected in drilling. For further detail on estimated sulphide types and percentages please refer to Appendix A.

Table 1. Summary of vein styles and sulphide minerals observed in drilling at the Julia target, Papayal

Hole ID	depth from	depth to	length	Vein Description	Sulphide Description
PPDD23-001	50.80	51.00	0.20	comb quartz vein, strongly oxidized with argillic halo	Iron oxides (replacement of pyrite)
	66.37	66.87	0.50	crustiform quartz vein	pyrite- galena- sphalerite - chalcopyrite
	88.57	89.24	0.67	semi-massive shulphide-quartz vein	abundant pyrite and weak chalcopyrite – galena - sphalerite
	90.70	90.92	0.22	crustiform-brecciated quartz-rhodochrosite	pyrite - galena ± chalcopyrite ± sphalerite
PPDD23-002	23.38	39.00	15.62	zone comprising several crustiform quartz veins ranging from 0.02m to 0.70m, strongly argillic-phyllic alteration	strongly oxidized and pyrite-galena±sphalerite weakly disseminated
	49.84	51.34	1.50	sequence of crustiform quartz veinlets, carbonate veinlets	disseminated pyrite-galena-sphalerite and massive sulphide veinlets (mostly pyrite)

Sulphide mineral species have been identified by geologists in hand specimen/ diamond core, through the use of handlens and high-powered microscope. In addition to this, portable XRF readings have also provided an indication of elemental abundances present in diamond core, which have been used to assist with mineral identification.

Titan does caution that at this stage visual estimates of sulphide mineral abundances are provided as a guide only and are not considered a proxy or substitute for laboratory analyses. Quantitative confirmation of sulphide mineral percentages will be confirmed by multi-element laboratory analysis.

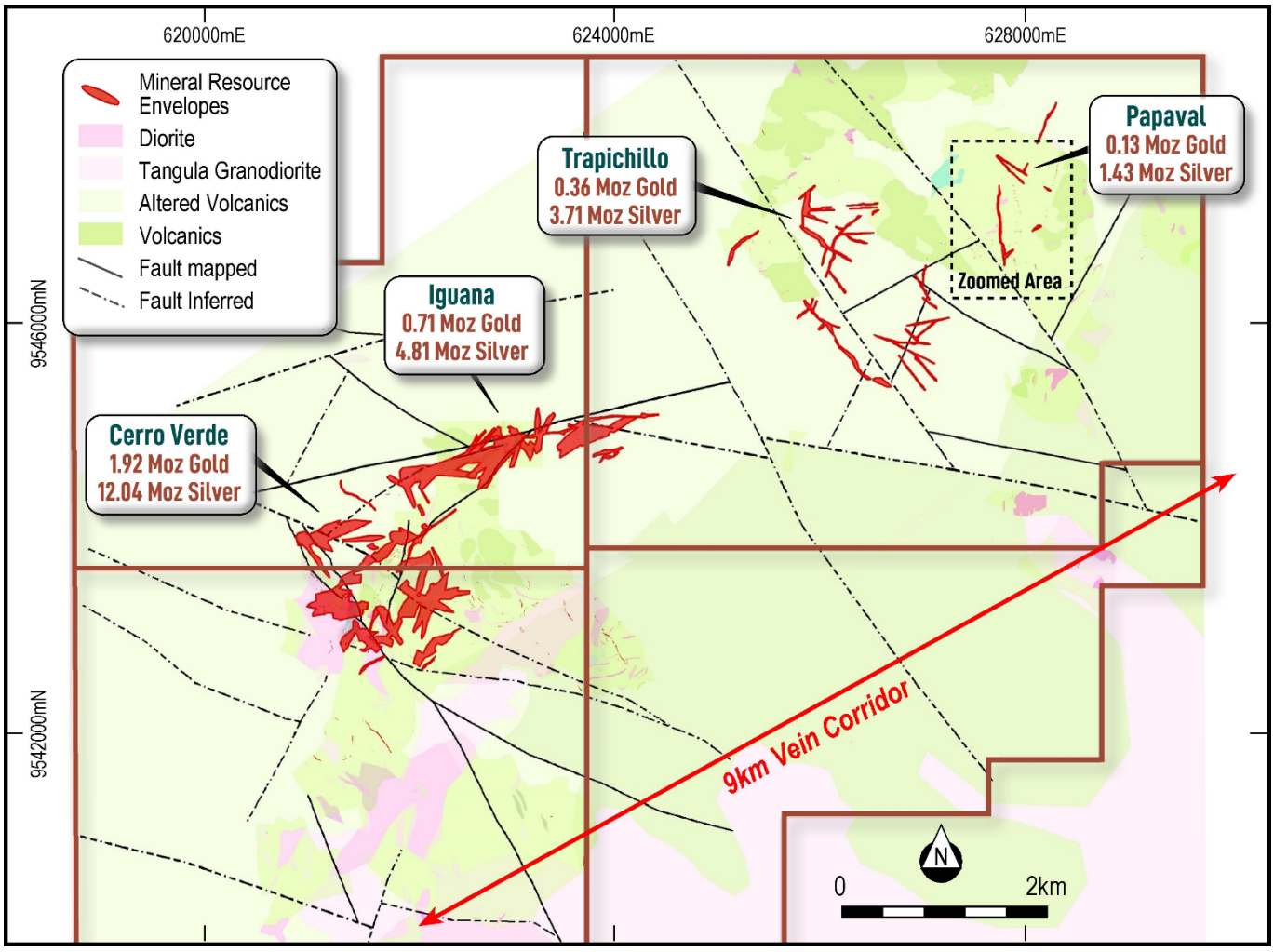


Figure 1. Dynasty plan view displaying Mineral Resources, prospect areas and geological interpretation.

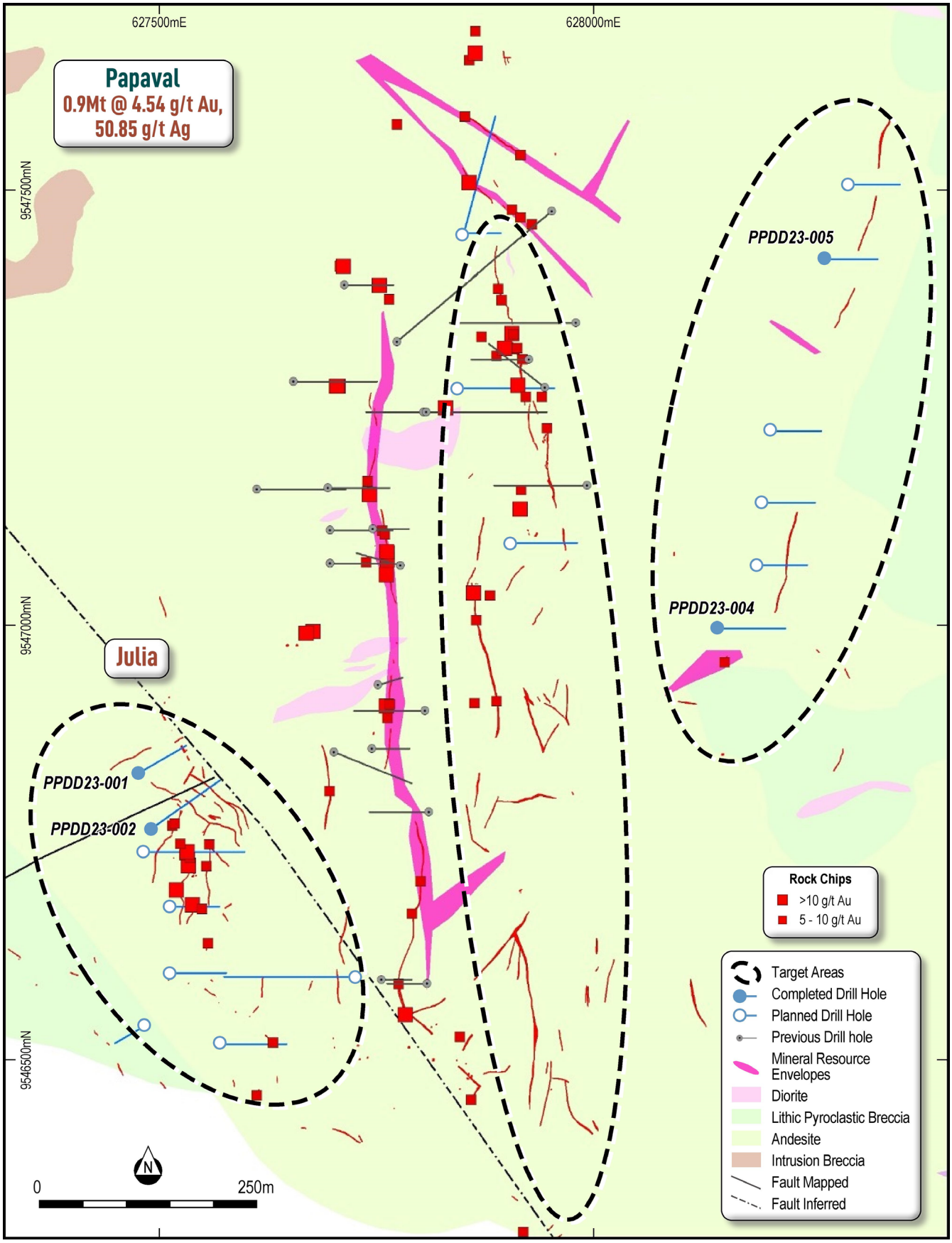


Figure 2. Papayal prospect displaying mineral resources, mapped geology and veins, rock chips > 5 g/t Au, planned and recently completed drillholes

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.

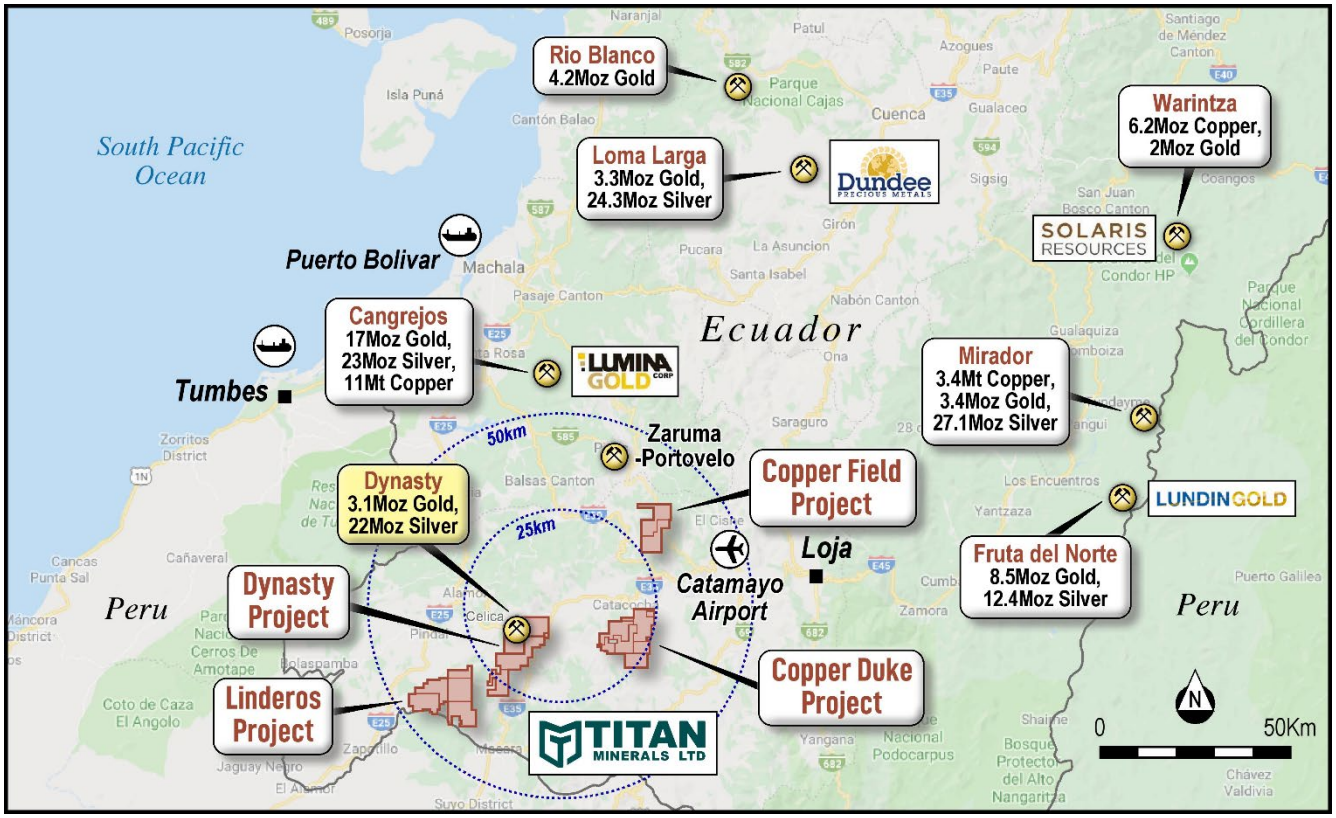


Figure 3. Titan Minerals southern Ecuador Projects, peer deposits and surrounding infrastructure

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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.

Appendix A.

Table 1. Dynasty Resource Drillhole Details

Prospect	Hole ID	Easting (m)	Northing (m)	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)
Papayal	PPDD23-001	627481	9546832	1086	60	-55	111.15
	PPDD23-002	627495	9546768	1056	55	-45	122.07
	PPDD23-004	628184	9547032	1142	90	-45	80.50
	PPDD23-005	628250	9547359	1210	90	-45	80.45
Cerro Verde	CVDD23-108	622240	9544044	1184	180	-46	79.05
	CVDD23-109	621792	9543406	1323	315	-40	98.60
	CVDD23-110	621854	9543441	1331	143	-55	99.18
	CVDD23-111	621100	9543387	1363	320	-45	118.43
	CVDD23-112	621171	9543422	1323	335	-45	159.62
	CVDD23-113	621274	9543041	1243	160	-45	114.32
	CVDD23-114	621336	9543036	1201	154	-45	97.26
	CVDD23-115	622334	9543331	1332	340	-40	124.60
	CVDD23-116	622441	9543306	1277	346	-45	81.97

Table 2. Observations of sulphide type and abundance from the Jula target drilling at the Papayal prospect

Hole ID	From (m)	To (m)	Length (m)	Pyrite (%)	Galena (%)	Sph (%)	Cpy (%)	Total Sulphide (%)	Sulphide Occurrence
PPDD23-001	25.14	26.4	1.26	1				1	Disseminated
	29.3	31	1.7	10				10	Disseminated
	31	31.5	0.5	5				5	Cumulus/ Veinlets
	38	44.5	6.5	5				5	Cumulus
	48.5	50.53	2.03	15				15	Disseminated
	50.53	51.16	0.63	0.5				0.5	Veinlets
	51.16	52.68	1.52	10				10	Disseminated/ Veinlets
	53.25	55.2	1.95	3				3	Disseminated
	55.7	57.48	1.78	5				5	Disseminated
	57.48	59.75	2.27	0.7				0.7	Disseminated
	59.75	61.23	1.48	15				15	Disseminated/ Veinlets
	61.23	64	2.77	4.75	0.25			5	Disseminated
	64	66.38	2.38	7				7	Disseminated
	66.38	66.9	0.52	9	0.5	0.5		10	Veinlets
	66.9	68.2	1.3	6.3	0.35	0.35		7	Disseminated/ Veinlets
	68.2	69.84	1.64	6				6	Disseminated
	69.84	71	1.16	8.7	0.7	0.5		10	Disseminated/ Veinlets
	71	72.7	1.7	9.5	0.5			10	Disseminated/ Veinlets
	72.7	73.6	0.9	6.3	0.42	0.28		7	Disseminated/ Veinlets
	73.6	75.2	1.6	9.5	0.5			10	Disseminated/ Veinlets

Hole ID	From (m)	To (m)	Length (m)	Pyrite (%)	Galena (%)	Sph (%)	Cpy (%)	Total Sulphide (%)	Sulphide Occurrence
	75.2	77	1.8	5.7	0.3			6	Disseminated/ Veinlets
	77	79.5	2.5	6.65	0.35			7	Disseminated
	79.5	82.48	2.98	15				15	Disseminated/ Veinlets
	82.48	85.8	3.32	7				7	Disseminated/ Veinlets
	85.8	86.25	0.45	6.3	0.56		0.14	7	Disseminated/ Veinlets
	86.25	88.57	2.32	7				7	Disseminated/ Veinlets
	88.57	89.25	0.68	73.6	4	1.6	0.8	80	Veinlets
	89.25	90.71	1.46	10				10	Disseminated/ Veinlets
	90.71	91.1	0.39	14.4		0.3	0.3	15	Veinlets
	91.1	99.25	8.15	7				7	Disseminated
	99.25	99.85	0.6	7				7	Disseminated/ Veinlets
	99.85	100.4	0.55	7				7	Disseminated/ Veinlets
	100.4	111.25	10.85	7				7	Disseminated/ Veinlets
PPDD23-002	23.9	24.4	0.5	1.8	0.6	0.15	0.45	3	Veinlets
	25.77	26.13	0.36	1.8	0.6	0.6		3	Veinlets
	26.13	27	0.87	1.4	0.3	0.3		2	Veinlets
	28.15	29.04	0.89	1.6	0.2	0.2		2	Veinlets
	30.34	31.22	0.88	2.4	1	0.6		4	Veinlets
	33	33.85	0.85	2				2	Veinlets
	33.85	34.6	0.75	2.4	0.3	0.3		3	Veinlets
	34.6	36	1.4	2				2	Veinlets
	37.6	37.84	0.24	2	0.25	0.25		2.5	Veinlets
	37.84	39	1.16	1				1	Veinlets
	39	49.5	10.5	0.5				0.5	Disseminated/ Veinlets
	49.5	53.5	4	2				2	Disseminated/ Veinlets
	53.5	61.5	8	0.5				0.5	Disseminated/ Veinlets
	61.5	63.28	1.78	3				3	Disseminated/ Veinlets
	63.28	70.43	7.15	0.4				0.4	Disseminated/ Veinlets
	70.43	71.5	1.07	2.85			0.15	3	Disseminated/ Veinlets
	71.5	89	17.5	0.2				0.2	Disseminated/ Veinlets
	89	89.48	0.48	3				3	Disseminated/ Veinlets
	89.48	103	13.52	0.29			0.02	0.3	Disseminated/ Veinlets
	103	105.4	2.4	1.9			0.1	2	Disseminated/ Veinlets
	105.4	109.63	4.23	0.29			0.01	0.3	Disseminated/ Veinlets
	109.63	110	0.37	1.47			0.03	1.5	Disseminated/ Veinlets
	110	112	2	0.2				0.2	Disseminated/ Veinlets
	112	115.45	3.45	2.97			0.03	3	Disseminated/ Veinlets
	115.45	117.39	1.94	0.2				0.2	Disseminated/ Veinlets
	117.39	121	3.61	2				2	Disseminated/ Veinlets
	121	122.07	1.07	0.1				0.1	Disseminated/ Veinlets

APPENDIX B

Dynasty Project - 2012 JORC Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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.*	• 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. • Downhole survey and core orientation tools are used, Diamond core is halved with a diamond saw to ensure a representative sample. • Channel sampling is completed as representative cut samples across measured intervals cut with hammer or hammer and chisel techniques. • 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. • 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 >10ppm Au from the AA finish technique are re-analysed by 30g fire assay for Au with a gravimetric finish. • An additional charge is split from sample for four acid digests with ICP-MS reporting a 48-element suite. • 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.
Drilling techniques	• *Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-sampling bit, or other type, whether core is oriented and if so, by what method, etc).*	• Drilling HTW diameter core with standard tube core barrels retrieved by wire line, reducing to NTW diameter core as required at depth. • Drill core is oriented by Reflex ACT III and True Core tools.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Diamond sample recovery is recorded on a run-by-run basis during drilling with measurements of recovered material ratioed against drill advance. • Diamond core is split in weathered material, and in competent unweathered/fresh rock is cut by a diamond saw to maintain a representative sample for the length of the sample interval. • No correlation between sample recovery and grade is observed.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining*	• Diamond core samples are logged in detail, with descriptions and coded lithology for modelling purposes, with additional logging comprised of alteration, geotechnical,

Criteria	JORC Code explanation	Commentary
	studies and metallurgical studies. • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	recovery, and structural logs including measurements based on core orientation marks generated from a Reflex ACTIII downhole survey tool. • Logging is predominantly qualitative in nature but including visual quantitative assessment of sulphide and quartz content included in text comments. • Core photographs are systematically acquired for whole core with sample intervals, orientation line prior and after the sampling in both wet and dry form. • 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.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all cores taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality, and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• 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. • 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. • Sample size studies have not been conducted but sample size used are typical of methods used for other Andean deposits of similar mineralisation styles.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *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.*	• 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. • No geophysical tools used in relation to the reported exploration results. • 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.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Reported intersections are logged by professional geologists in Australia and data validated by a senior geologist in Ecuador. • Twin holes have not been used in the reported exploration results. The use of twinned holes is anticipated in follow-up drilling. • Original laboratory data files in CSV and locked PDF formats are stored together with the merged data. • All drilling, and surface data are stored in a self-validating MX Deposit geological

Criteria	JORC Code explanation	Commentary
		database. • No adjustment to data is made in the reported results
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used* • *Quality and adequacy of topographic control.*	• Reported drill collars and channel samples are located with an RTK GPS survey unit with sub-centimetre reporting for the purpose of improved confidence in resource estimation work. A gyroscopic survey tool is used for downhole surveys. • All surveyed data is collected and stored in WGS84 datum. • Topographic control is ground survey quality and reconciled against Drone platform survey data with 1m pixel resolution. Assessed to be adequate for the purpose of resource estimation
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Data spacing for reported diamond drilling varies by prospect, targeting a nominal 80m lateral spacing and 80m vertical spacing for data acquisition. • Reported Channel sampling is collected on 10m to 20m spacing depending on resolution of structural information deemed necessary by the geology team. • Data spacing is anticipated to support mineral resource estimation for the indicated and inferred categories, with data spacing and distribution for higher confidence resource estimation categories to be defined with further modelling and geostatistical analysis work. • No Sample compositing has been applied in reported exploration results.
Orientation of data in relation to geological 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.*	• 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.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews of reported data completed outside of standard checks on inserted QAQC sampling.

Section 2 - Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure 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.* • *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.*	• Titan Minerals Ltd, through its indirect wholly owned Ecuadorian subsidiaries, holds a portfolio of exploration properties in the Loja Province of Ecuador. Amongst these, Titan holds a 100% interest in the Pilo 9, Zar, Zar 1, Zar 3A and Cecilia 1 concessions forming the Dynasty Project and totalling an area of 13,909 hectares. • Mineral concessions in Ecuador are subject to government royalty, the amount of which varies from 3% to 4% depending on scale of operations and for large scale operations (>1,000tpd underground or >3,000tpd open pit) is subject to negotiation of a mineral/mining agreement. • Pilo 9, Zar and Zar 1 are subject to a 3% royalty payable to the Ecuador Government as part of the Small Scale Mine Licensing regime currently issued in favour of the Dynasty Goldfield Project but may be subject to change in the event economic studies after exploration indicate a need to apply for a change of regime. • Concessions, Zar 3A and Cecilia 1 have not yet completed the environmental permitting process and require the grant of an Environmental Authorisation. • Mineral concessions require the holder to (i) pay an annual conservation fee per hectare, (ii) provide an annual environmental update report for the concessions including details of the environmental protection works program to be followed for the following year. These works do not need approval; and (iii) an annual report on the previous year's exploration and production activity. Mineral Concessions are renewable by the Ecuadorian Ministry of Oil, Mining and Energy in accordance with the Mining Law on such terms and conditions as defined in the Mining Law.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Dynasty Gold Project Exploration done by other parties set out in further detail in the Titan ASX release dated 19 May 2020, and summarised below: • 1977, the Spanish-Ecuadorian joint venture company, Enadimsa, claimed 1,350ha in the La Zanja (Cerro Verde) area for exploration - no results included in reporting. • During the 1970s the United Nations explored the "Curiplaya" area, 2 km east of the Dynasty Project. Copper and gold were detected in small quantities, data not included in reporting. • 1991–92, BHP Exploration Ltd. covered the general area with concessions, but the tenements eventually lapsed after minimal work. • 2001 to 2003, a private prospecting company, Ecuasaxon, undertook investigations in the general area and discovered anomalous gold and silver in quartz-sulphide veins in what is now the concession area. • 2003 until 2007 Dynasty Mining and Metals (later Core Gold) completed mapping, limited ground geophysical surveys and exploration sampling activity including 201 drill holes totalling 26,733.5m and 2,033 rock channel samples were taken from 1,161 surface trenches at Cerro Verde, Iguana Este, Trapichillo and Papayal in support of a maiden resource estimation. • 2008 to 2009, the Ecuadorian Government introduced an exploration moratorium, where on April 18, 2008, Ecuador's Constitutional Assembly passed a Constituent Mandate

Criteria	JORC Code explanation	Commentary
		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. • 2017 to 2020 Core Gold Inc. (formerly Dynasty Mining and Metals) commenced small scale mining on a small portion of the Dynasty Project. Operations exposed a number of veins of the Canadian NI 43-101 compliant resource estimate, and operations discovered several veins of varying orientations not previously identified in drill and trench exploration activities requiring further exploration activity to quantify.
Geology	• *Deposit type, geological setting, and style of mineralisation.*	• 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. • 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. • Porphyry intrusion style mineralisation hosting gold, silver and copper mineralisation has also been mapped and intersected by drilling by at the Kaliman porphyry within the Dynasty Project area. • Gold occurs in its native form along with sulphides, including pyrite, sphalerite, galena, arsenopyrite, marcasite, chalcopyrite and bornite.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *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.*
		• Tabulation of requisite information for all reported drilling results with significant intercepts validated by Titan geologists and referenced in this report are included in Appendix A of this report.
		• Total number of drill holes and trench sites included in this report and located in graphics included in the report.

Data aggregation	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off*	• No high-grade assay cut was applied to reported gold results. In the case of silver, the initial upper detection limit of the four-acid digest used is 100ppm, and an overlimit

Criteria	JORC Code explanation	Commentary
methods	*grades are usually Material and should be stated* *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	analysis method with an upper detection limit of 1,500ppm is used. • Lower cut-off for reported significant intercepts is 0.5g/t Au with up to 4m of internal dilution (results with <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. • No metal equivalent reporting is applicable to this announcement
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	• 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. • Reported intercepts are drilled thickness and should not be interpreted as true thickness unless otherwise indicated
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Included in body of report as deemed appropriate by the competent person
Balanced 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.*	• All material exploration results for drilling are included in this report, and location of all results are included in Figures provided in their entirety. • All results above 0.5g/t Au are included when reporting high grade vein hosted gold mineralisation. No upper cut-off has been applied.
Other substantive 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.*	• 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. • Bulk density tests have been completed on areas related to the reported exploration results.
Further work	• *The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Additional drilling is planned to better define structural controls on mineralisation and 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. • Included in body of report as deemed appropriate by the competent person