

# Drill Results Confirm the Interpreted Widths and Extent of the Iguana Vein Corridor

#### **Highlights**

- Diamond drilling confirms widths and grades of the Iguana vein sets reported under the Canadian NI 43-101 resource estimate
- Structural analyses of oriented diamond core is progressing and 3D modelling for both Iguana and Papayal Prospects is underway
- Work on the planned JORC resource estimate for Dynasty is well advanced
- Trench sampling is in progress at both Iguana and Papayal Prospects
- Assay results received for the Iguana Prospect, the first 20 diamond holes of the ongoing drill program at the Dynasty Gold Project in Ecuador. The results include:
  - o 4.94m @ 6.28 g/t gold and 16 g/t silver from 82.22m IGD007
  - o 2.28m @ 6.82g/t gold and 88g/t silver from 24.52m IGD010
  - o 2.69m @ 7.54 g/t gold and 38 g/t silver from 125.76m IGD013
  - o 3.80m @ 6.92 g/t gold and 30 g/t silver from 117.20m IGD015
  - o 8.46m @ 2.23g/t gold and 11g/t silver from 83.60m IGD016

Titan Minerals Limited (ASX: TTM) (**Titan** or the **Company**) is pleased to report assay results for the Iguana Prospect. These results support the interpreted widths and extent of the Iguana vein corridor, hosting approximately 375,000 ounces of the existing 2.1Moz gold foreign resource estimation (Canadian NI 43-101 compliant) for the Dynasty Gold Project (refer to ASX Release dated 30 April 2020 and Notes to Resource following the end of this announcement). The information in this announcement relating to Mineral Resource Estimates for the Dynasty Gold Project is a foreign estimate and is not reported in accordance with the JORC Code.

#### Commenting on the assay results, Titan Minerals Managing Director, Laurie Marsland said:

"Drilling at Dynasty is progressing well and despite some delays, is moving ahead across each of the prospects. Importantly, we are pleased to see assay results for Iguana confirm the grade, previous interpreted widths and extent of the Iguana vein corridor.

Modelling work in support of the planned JORC compliant update to the resource estimate for Dynasty is well advanced. The team is looking forward to drilling activity progressing onto our priority target, the Cerro Verde Prospect area. Re-sampling at Cerro Verde has demonstrated the potential for a significant increase in the volume of material that will define the JORC resource at Dynasty".

The Iguana Prospect is a 2.5km long structural corridor hosting multiple gold silver veins that trend northeast from the highly prospective Cerro Verde Prospect area. Historical drill and trench results cover just over 1km of strike on the Iguana vein corridor (refer to ASX release dated 19 May 2020). The current drill program focuses on complementing historical drilling by generating the first oriented core at the Dynasty Gold Project. Results define structural controls for modeling the vein array and vein geometries. While collecting the geological data required for modeling, drilling has provided several intersections on step-outs to previous drilling that demonstrates the potential to further extend the mineralized corridor. Better intercepts in the historical drilling at the Iguana Prospect include:

- 6.75m @ 4.14g/t gold and 43g/ silver from 81.4m DDH069
- $\circ~~3.8m \ @~9.55g/t~gold~and~23g/t~silver~from~76.8m$  DDH073
- o 8.5m @ 13.9g/t gold and 55g/t silver from 97.3m DDH103
- o 4.82m @ 7.59g/t gold and 22g/t silver from 111.18m DDH116



The Iguana Prospect is not a priority target for larger bulk tonnage potential, as is the case outlined in drill results from the Cerro Verde Prospect (refer to ASX release dated 14 July 2020), where mineralised halos surrounding veins are delivering 3 to 5 times wider mineralised zones. To define key structural controls for the high-grade shoots, and extensions of mineralisation both along strike and at depth, within context of the larger Dynasty Gold Project, the high-grade nature of the veining at the Iguana Prospect merits further investigation.

#### **Diamond Drill Results**

Reported results are for assayed intervals from the first 20 holes, totalling 4,550 metres drilled, of the current 12,000m diamond drilling campaign. All reported drillholes intersect veining in the Iguana corridor, with 19 holes reporting significant intercepts (refer to Appendix A) across multiple vein structures. Recent drilling focused on a 560m segment of the Iguana vein corridor, an initial step toward an 80m by 40m spaced drill pattern. Overall, recent drilling has returned results similar in tenor and extent to historical drill results. Additional detailed structural analysis that will increase confidence in linking recent drilling results to historical results is in progress.

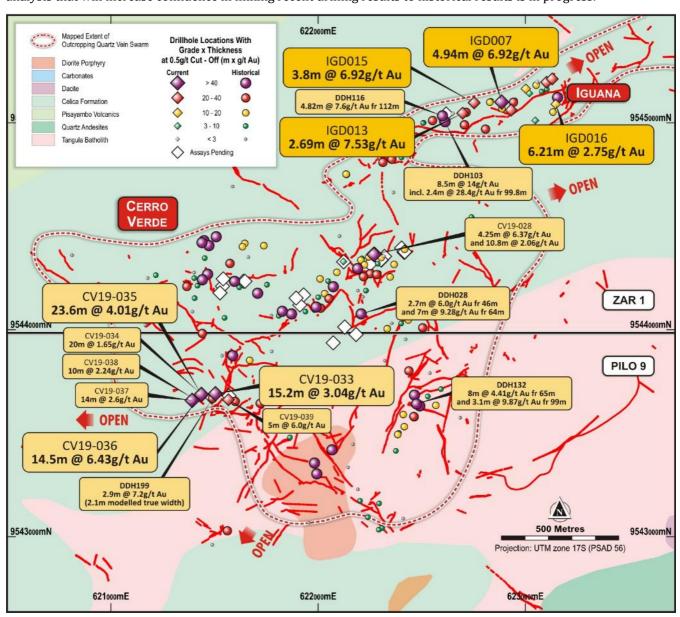


Figure 1: Drill collar locations within the Cerro Verde Prospect area showing the current interpretation of geology and traces of quartz veins at surface confirmed from systematic trenching and drilling.



#### **Mineralised Intercepts**

The Iguana Prospect hosts multiple narrow veins, associated with brittle deformation events, within the intermediate composition volcanic units of the Celica Formation. Lithologic textures within the volcanic package associated with veining range from, massive andesite flows to volcaniclastic units and pyroclastic flow units, within the Celica Formation. The quartz veins are predominantly observed as quartz healed breccias, with strong evidence of reactivated structures associated with multiple mineralizing events.

The vein textures within the Iguana vein corridor are indicative of epithermal style alteration, with a variety of classic epithermal vein textures throughout the drilling, including quartz after calcite replacement textures, cockscomb textures, localized colloform banding, saccharoidal quartz, chalcedonic quartz, and vuggy style quartz in some locations (Refer to Figures 2 to 4). The quartz after calcite and chalcedonic textures are suggestive of higher level mineralisation and encouraging for further potential and increasing grades with depth.

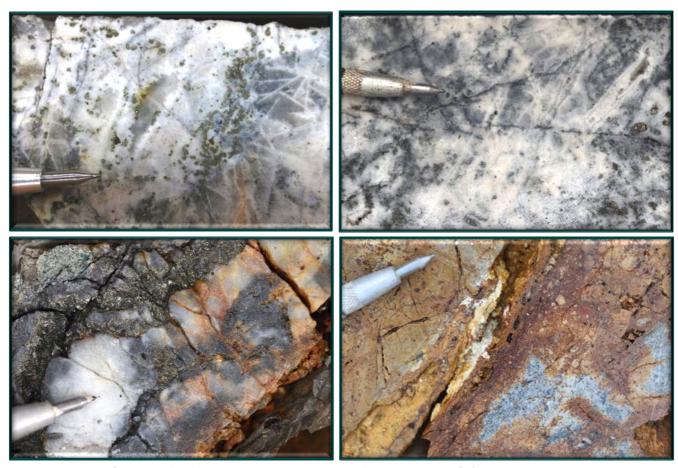


Figure 2: Examples of epithermal style textures in recent and historical drilling. Upper Left | historical hole DDH116 demonstrating replacement textures (quartz after bladed calcite) at approximately 114m within a vein interval returning 4.82m @ 7.59 g/t gold from 111.18m drill depth (announced 19 May 2020). Upper Right | hole IGD013 hosting colloform textures, vuggy quartz and calcite replacement textures in quartz veined zone returning 1.09m @ 5.25 g/t gold and 80 g/t silver from within a significant intercept of 2.69m @ 2.74 g/t gold. Lower Left | hole IGD015, saccharoidal quartz associated with calcedonic silica with massive sulphide mineralisation returning 0.48m @ 22.2g/t gold and 47.9g/t silver from within 3.80m @ 6.92 g/t gold reported intercept. Lower Right | hole IGD007, clast of strong silica altered andesite cut by saccharoidal quartz veining and overprinted by fine silica and quartz healed breccia textures hosting blebby sulphides assaying 0.48m @ 23.2 g/t gold and 15.9 g/t silver within a reported intercept of 4.94m @ 6.28 g/t gold from 82.22m drill depth.





Figure 3: Mineralised intercept from drillhole IGD007 returning 4.94m @ 6.28g/t gold from 82.22m depth showing strong silicification and sericitic alteration haloing quartz vein and quartz healed breccia material in the Iguana vein zone.



Figure 4: Mineralised intercept from drill hole IGD013, returning 2.69m @ 7.54g/t gold from 125.76m drill depth (image showing recovered core before sampling from 125.1m to ~130.6m depth).



Extension drilling has identified additional veining within the Iguana vein corridor, anticipated to be vein splays and increasing complexity of the vein array, as mineralisation progresses to the northeast. Oriented core potentially provides a structural framework to incorporate additional ancillary veins into geology modeling work.

#### **Planned Work**

In addition to drilling within the Iguana Prospect area, sampling of drill core from drilling carried out over Cerro Verde during 2019 and 2020, was completed in December. Final assays are expected in the coming weeks. At the Papayal Prospect, maiden drilling of outcropping high grade quartz vein zones continues, while logging and sampling of drill core is ongoing (refer to Figure 5).

Trench sampling and mapping are ongoing at the Iguana and Papayal Prospects concurrent with drilling at Papayal. Structural analyses of oriented diamond core is in progress and 3D modelling for both Iguana and Papayal Prospects is well advanced.

Further scope of work for the Iguana Prospect area will be defined following the current drilling campaign and completion of modelling and resource estimate updates. Updated modelling will further inform drilling priorities for resource growth across the Dynasty Gold Project.

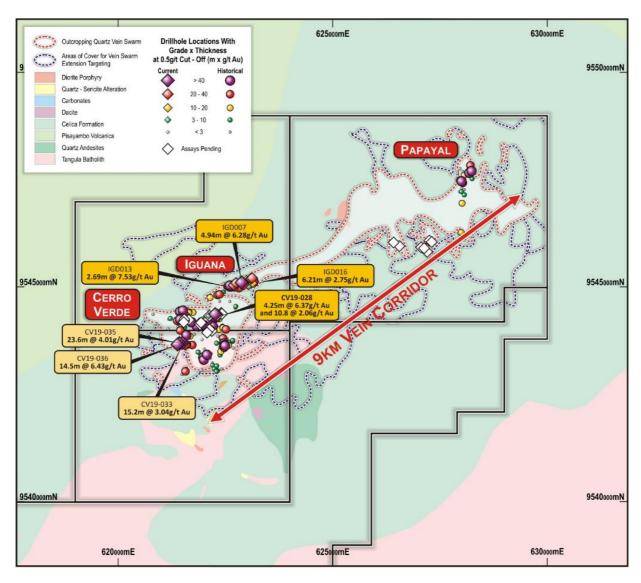


Figure 5: Dynasty Project geology summary and outline of mapped extent of the vein swarm with drill collar locations illustrated by grade multiplied by drilled thickness values for intercepts at a greater than 0.5g/t Au lower cut-off.



#### **Dynasty Gold Project Summary**

Dynasty is an advanced stage exploration project located in the Loja Province of southern Ecuador (refer to Figure 5) and currently hosts a foreign resource estimate of 2.1 million ounces averaging 4.5g/t gold<sup>(1)</sup> reported in compliance with Canadian NI 43-101 standards. The project comprises five concessions totalling 139 square kilometres and includes three concessions that received an Environmental Authorisation in early 2016 and are fully permitted for exploration and small-scale mining.

The 12,000m drill campaign currently underway, is designed to better define the geologic model for the purpose of elevating the standard of work done to produce a resource estimation in accordance with international standards, utilising modern geostatistical methods. The current drilling in and proximal to areas of known mineralisation, combined with recent high-resolution geophysics, ongoing mapping, and structural studies, will position the company to effectively plan and advance development of the project during 2021. Current and future work will enable the extent of the mineralised footprint and the resource potential at the Dynasty Gold Project to be defined.

					_	
Category	<b>Tonnes</b> (Thousands)	<b>Au</b> (g/t)	<b>Ag</b> (g/t)	Contained Au (1,000 ozs)	Contained Ag (1,000 ozs)	
Indicated	6,622	4.65	36	991	7,673	
Inferred	7,824	4.42	36	1,113	9,151	
Total	14,446	4.53	36	2,103	16,800	

 $\it Table~1: Summary~of~Foreign~Mineral~Resource~Estimation~current~as~at~31~December~2018$ 

<sup>&</sup>lt;sup>1</sup>The information in this announcement relating to the Mineral Resource Estimate for the Dynasty Project is a foreign estimate and is not reported in accordance with the JORC Code. A competent person has not done sufficient work to classify this foreign estimate as a mineral resource in accordance with the JORC Code and it is uncertain that following further exploration work that this foreign estimate will be able to be reported as a mineral resource in accordance with the JORC Code.

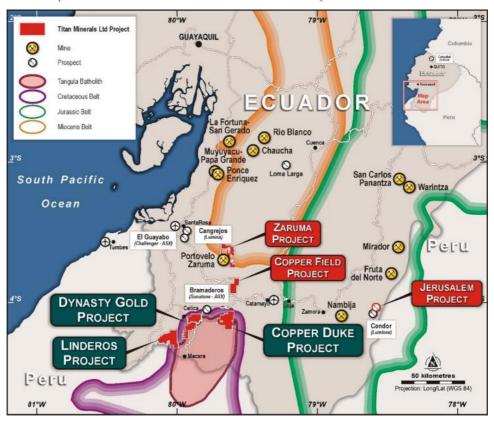


Figure 6: Location of Titan Minerals Projects in Southern Ecuador

<sup>&</sup>lt;sup>1</sup> Refer to Notes to Mineral Resource. The information in this announcement relating to Mineral Resource Estimates for the Dynasty Gold Project is a foreign estimate and is not reported in accordance with the JORC Code



#### -ENDS-

Released with the authority of the Board.

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

**Contact:** 

#### **Titan Minerals**

Laurie Marsland Managing Director info@titanminerals.com.au +61 8 6555 2950 Matthew Carr Executive Director matthew.carr@titanminerals.com.au +61 408 163 950 Mark Flynn Investor Relations mark.flynn@titanminerals.com.au +61 416 068733

#### **Notes to Mineral Resource**

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

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

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

#### **Competent Person's Statement**

The information in this report that relates to Exploration Results is based on information compiled by Mr Travis Schwertfeger, who is a Member of The Australian Institute of Geoscientists. Mr Schwertfeger is the Chief Geologist for the Company and has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Schwertfeger consents to their inclusion in the report of the matters based on his information in the form and context in which it appears.

## **APPENDIX A**



APPENDIX A: Significant Intercept table for Dynasty Project Drilling- Collar locations given in PSAD56 Datum for intercepts >0.50g/t Au and inclusive of up to 3m of internal dilution. Reported intercepts are drilled thickness and should not be interpreted as true thickness unless otherwise indicated.

Prospect	HoleID	Azimuth	Dip	Depth of Hole (m)	Easting	Northing	Elevation	From (m)	To (m)	Drill Thickness (m)	Gold (g/t)	Silver (g/t)
								54.75	58.78	4.03	1.08	13
lauono	IGD-001	127	-45	250.9	623100	9545200	1108	145	148	3.0	1.72	6
Iguana	IGD-001	127	-45	250.9	623100	9545200	1108	162.45	162.88	0.43	4.51	28
								195.2	197.03	1.83	2.76	6
								20.58	21.05	0.47	1.78	16
								50.1	51.8	1.7	1.78	6
								172.7	176.11	3.41	2.39	39
Iguana	IGD-002	148	-45	218.76	623100	9545200	1108		including	1.78	4.16	
								187.51	191.05	3.54	3.16	16
										including	0.95	8.15
								203.1	208.5	5.4	1.16	19
								62.7	65.9	3.2	1.32	7
Iguana	IGD-003	115	-71	310.1	623000	9545168	1089	83.2	87.1	3.9	1.54	8
								267.74	269.55	1.81	1.69	19
								92.6	92.9	0.3	8.69	74
								99.47	102.4	1.91	5.00	66
Iguana	IGD-004	117	-56	250.67	622881	9545106	1058	117.68	118.38	0.7	3.40	17
								134.3	137.85	3.55	2.23	11
		_						206.84	207.57	0.73	2.59	7
								42.82	44.65	1.83	2.27	44
Iguana	IGD005	126	-50	260.56	623000	9545168	1089	58.82	59.85	1.03	2.47	48
								200.84	202.09	1.25	2.14	17



Prospect	HoleID	Azimuth	Dip	Depth of Hole (m)	Easting	Northing	Elevation	From (m)	To (m)	Drill Thickness (m)	Gold (g/t)	Silver (g/t)	
								92	104.95	12.95	0.58	2	
									including	0.5	5.40	8	
Iguana	IGD006	144	-60	250.12	622750	9545100	1041	110.95	111.6	0.65	4.09	234	
								135.8	137.2	1.4	7.03	16	
								154.9	155.5	0.6	4.48	22	
lguana	IGD007	157	-52	250.15	622881	9545106	1058	82.22	87.16	4.94	6.28	16	
Iguana	IGD007	15/	-52	250.15	022881	9545106	1038	128.76	130	1.24	7.25	35	
								24.9	32.37	7.47	0.68	11	
								44.2	45.57	4.57	0.93	9	
lavana	ICDOOR	00	4.4	240.20	C2242 <del>7</del>	0545246	1116	190.68	192.7	2.02	0.86	10	
Iguana	IGD008	90	-44	310.38	623127	9545216	1116	224.78	226.12	1.34	2.97	12	
								255.8	257.22	1.42	1.14	5	
									266.88	270.05	3.17	0.57	1
								11.15	14.3	3.15	0.68	4	
lauono	ICD000	154	75	122.57	622928	0545065	1002	35.15	42.1	6.95	1.67	20	
Iguana	IGD009	154	-75	122.57	022928	9545065	1093		including	3.85	2.74	29	
								92.5	93.73	1.23	5.31	12	
								24.52	26.8	2.28	6.82	88	
Iguana	IGD010	140	-78	300.31	622695	9545050	1020	191.1	191.7	0.6	4.16	80	
								206.95	212.22	5.27	1.73	9	
Iguana	IGD011	130	-48	125.92	623018	9545144	1096	33.54	35.2	1.66	2.09	13	
la	ICD043	142	4.5	240.22	C22427	0545346	1116	30.3	37.55	7.25	0.87	4	
Iguana	IGD012	112	-45	310.32	623127	9545216	1116	46.15	48.8	2.65	1.87	25	
Iguana	IGD013	193	-60	250.37	622695	9545050	1020	125.76	128.45	2.69	7.54	38	
Iguana	IGD014	125	-61	210.68	623144	9545094	1091	126.13	127.13	1	2.06	62	
								39.68	40.2	0.52	4.48	2	
Iguana	IGD015	133	-45	170.53	622750	9545100	1041	117.2	121	3.8	6.92	30	
									including	1.65	13.90	56	



Prospect	HoleID	Azimuth	Dip	Depth of Hole (m)	Easting	Northing	Elevation	From (m)	To (m)	Drill Thickness (m)	Gold (g/t)	Silver (g/t)
lauana	IGD016	80	-53	130.21	623144	9545094	1091	83.6	92.06	8.46	2.23	10
Iguana	IGD016	80	-55	130.21	023144	9545094	1091		including	5.2	3.09	12
Iguana	IGD018	134	-78	300.73	623057	9545199	1100	no significant intercept				
								9.75	13.5	3.75	1.93	82
Iguana	IGD019	120	-60	150.65	623046	9545013	1073		including	1.22	5.32	242
								35.3	35.74	0.44	5.35	128
Iguana	IGD020	165	-63	176.59	623046	9545013	1073	10.9	12.7	1.8	2.71	13
lauana	IGD021	217	-75	200.38	622650	9545046	1012	165.91	167.04	1.13	2.33	25
Iguana	100021	21/	-/5	200.38	022030	9343040	1012	172	173.6	1.6	2.29	11



# **Dynasty Gold Project - 2012 JORC Table 1**

### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg 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</li> </ul>	<ul> <li>Diamond drilling method was used to obtain HTW and NTW core (71.4/56.23 mm diameter respectively) for density, chemical, and metallurgical analysis.</li> </ul>
	<ul> <li>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> </ul>	Downhole survey and core orientation tools are used, Diamond core is halved with a diamond saw to ensure a representative sample.
	<ul> <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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.     </li> </ul>	<ul> <li>½ or ¼ core was submitted for analysis. 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>30g charges were split from each pulp for fire assay for Au with an atomic absorption (AA) finish.</li> <li>samples returning &gt;10ppm Au from the AA finish technique are reanalysed 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> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</li> </ul>	<ul> <li>Drilling HTW diameter core with standard tube core barrels retrieved by wire line.</li> <li>Drill core is oriented by Reflex ACT III and True Core tools,</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <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 sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Diamond sample recovery is recorded on a run-by-run basis during drilling with measurements of recovered material ratioed against drill advance.</li> <li>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.</li> <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 to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> </ul>	<ul> <li>Diamond core samples are logged in detail, with descriptions and coded lithology for modelling purposes, with additional logging comprised of alteration, geotechnicial, recovery, and structural logs including measurements based on core orientation marks generated from a Reflex ACTIII downhole survey tool.</li> </ul>
	<ul> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> </ul>	<ul> <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</li> </ul>
	The total length and percentage of the relevant intersections logged.	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	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core 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</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 cut-line 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</li> </ul>

www.titanminerals.com.au



Criteria	JORC Code explanation	Commentary
	<ul> <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>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 data and 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> </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 techniques used is considered to be a total recovery technique for gold analysis. This technique is considered an appropriate method to evaluate total gold content of the samples.</li> </ul>
	<ul> <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> </ul>	No geophysical tools used in relation to the reported exploration results.
	<ul> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>In addition to the laboratory's own quality control ("QC") procedure(s), Titan Minerals Ltd inserts its own certified reference materials, blanks, and field duplicate (in the form of ¼ core repeats of intervals for check analysis). QC samples are regularly inserted targeting 3 to 5% of each material type.</li> </ul>
Verification of sampling and 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 Ecuador and data validated by a senior geologist.</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 Microsoft Access database</li> <li>No adjustment to data is made in the reported results</li> </ul>
Location of data points	<ul> <li>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.</li> </ul>	<ul> <li>Reported drill results are located with a handheld GPS at the time of reporting. Collar sites are monumented and will be re-surveyed following completion of the current drill campaign with a differential GPS to improve accuracy for the purpose of improved confidence in resource estimation work.</li> </ul>
	<ul> <li>Specification of the grid system used</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>All surveyed data was collected and stored in PSAD56 datum.</li> <li>Topographic control is ground survey quality and reconciled against satellite DEM data with 12m pixel resolution at the time of reporting. Assessed to be adequate for the purpose of resource estimation in the Inferred category.</li> </ul>
Data spacing and distribution	Data spacing for reporting of Exploration Results.	<ul> <li>Data spacing for reported Diamond drilling varies by prospect area, with drill density ranging from nominal 80m spacing along strike and 40 to 50m vertical spacing on specific vein target areas.</li> <li>Data spacing is anticipated to support mineral resource estimation for the inferred category, with data spacing and distribution for higher confidence resource estimation categories to be defined with further modelling and geostatistical analysis work.</li> </ul>
	Whether the data spacing and distribution is sufficient to establish the degree of geological and	No Sample compositing has been applied in reported exploration results.

www.titanminerals.com.au



Criteria	JORC Code explanation	Commentary
	grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	
	Whether sample compositing has been applied.	
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> </ul>	<ul> <li>The orientation of diamond drilling and trenching is perpendicular to mapped orientation of primary vein target observed in outcrop where possible. Drilling is 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</li> </ul>
	<ul> <li>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.</li> </ul>	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 secured 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.	No audits or reviews of reported data completed.

## Section 2 - Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Titan Minerals Ltd, through its indirect wholly owned subsidiary, Elipe S.A. ("Elipe"), holds a portfolio of exploration properties in the Loja Province of Ecuador. Amongst these, Elipe 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.</li> <li>Mineral concessions in Ecuador are subject to government royalty, the amount of which varies from 3% to 8% depending on scale of operations and for large scale operations (&gt;1,000tpd underground or &gt;3,000tpd open pit) is subject to negotiation of a mineral/mining agreement.</li> <li>Pilo 9, Zar and Zar 1 are currently subject to a 3% royalty payable to the Ecuador Government as part of the Small Scale Mine Licensing currently issued in favour of the Dynasty Goldfield Project.</li> <li>Concessions, Zar 3A and Cecilia 1 have not yet completed the environmental permitting process and require completion of an Environmental Authorisation.</li> <li>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.</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 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



Exploration dans by			(Corro Vordo) area for evaluration, no recults included in reporting
Exploration done by other parties		•	(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 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 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 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 some base metal mineralisation has also been mapped at several areas within the Dynasty Project area termed: Trapichillo (Bravo, 2005), Cola and Kaliman prospect areas.  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.  Material drill holes tabulated contain significant intercepts with gold grades exceeding 0.5g/t gold and are included in Appendix A of this report. No drill holes are excluded from maps or graphics in the report and all drill locations with or without material significant intercepts are

www.titanminerals.com.au



				included in maps and diagrams. Tabulation of requisite information for all reported drilling results with significant intercepts announced in this report are included in Appendix A.
Data aggregation methods	•	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off 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.	•	No high-grade assay cut was applied to reported exploration results. Lower cut-off for reported intercepts is 0.5g/t Au with up to 3m of internal dilution (results with <0.5g/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 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 0.5g/t gold cut-off. Where individual assays or composited intervals included in reported intercepts exceed 10g/t these intervals are separately tabulated. 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.	•	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.
	•	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').		
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 to avoid 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 a 0.5g/t lower cut-off are included in this report, and 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. No bulk density, or groundwater tests have been completed on areas related to the reported exploration results.
Further work	•	The nature and scale of planned further work (eg 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	•	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 is to be conducted along strike of reported work to refine and prioritise targets for drill testing.
		sensitive.	•	Included in body of report as deemed appropriate by the competent person