

June 9, 2022

Linderos Project Update, Southern Ecuador

Recent exploration activity at Titan Minerals Limited (Titan, or the Company (ASX: TTM) Linderos Project in Southern Ecuador has continued to show excellent copper and coincident molybdenum results from channel sampling at the Copper Ridge porphyry copper target. The recently completed soil geochemistry results have highlighted a classic zoned doughnut shaped anomaly approximately 750m in diameter with a central core of copper, molybdenum, and tungsten ringed by an outer halo of selenium, tellurium and bismuth.

Detailed stratigraphic, alteration and vein abundance mapping completed by Titan's technical team, coupled with geophysical and geochemical datasets have defined compelling targets for a first phase of drilling at Copper Ridge.

Significant results returned from Copper Ridge Prospect include:

- 46m @ 0.24% copper, 9.71ppm molybdenum in channel CRC040
- 32m @ 0.21% copper, 3.91ppm molybdenum in channel CRC051
- 26m @ 0.22% copper, 9.76ppm molybdenum in channel CRC037
- 16m @ 0.23% copper, 8.94ppm molybdenum in channel CRC038
- 11.8m @ 0.22% copper, 13.14ppm molybdenum in channel CRC041
- 14m @ 0.19% copper, 8.31ppm molybdenum in channel CRC030

At the nearby, Meseta Gold Prospect exceptional gold results have also been returned from channel and rock chip sampling in what is shaping as a significant high-sulphidation epithermal gold system.

Significant results returned from Meseta Gold Prospect include:

- 4.5m @ 12.69g/t gold and 3.48g/t silver in channel MGC22-025
- 2.9m @ 9.81g/t gold and 2.69g/t silver in channel MGC22-024
- 3.5m @ 7.08g/t gold and 120.77g/t silver in channel MGC22-018
- 10.0m @ 5.46g/t gold and 261.96g/t silver in channel MGC22-019
- 2.5m @ 6.91g/t gold and 248.76g/t silver in channel MGC22-016
- 3.0m @ 7.60g/t gold and 2.43g/t silver in channel MGC004



- 2.5m @ 4.85g/t gold and 130.48g/t silver in channel MGC22-017
- 4.3m @ 4.75g/t gold and 4.62g/t silver in channel MGC22-023
- 4.1m @ 4.51g/t gold and 6.04g/t silver; and 12.9m @ 2.27g/t gold and 2.87g/t silver in channel MGC010
- 0.5m @ 5.95g/t gold and 77.80g/t silver in channel MGC22-015

Preliminary reconnaissance exploration work was also completed at the Capa Rosa and Loma Alta Prospects where highly encouraging gold and silver results were returned from rock chips taken from outcropping epithermal veins.

Significant results returned from Capa Rosa and Loma Alta include:

- 16.05g/t gold, 197.00g/t silver from rock chip TM029553
- 13.00g/t gold, 15.65g/t silver from rock chip TM015215
- 12.05g/t gold, 88.50g/t silver from rock chip TM029554
- 1.05g/t gold, 16.25g/t silver and 0.315% copper from rock chip TM015206

The Company is very encouraged by the potential revealed from detailed surface mapping and geochemical sampling completed by its technical team at the Linderos Project. These significant new results paired with robust geological datasets have highlighted several compelling gold and copper-molybdenum targets that warrant further work.

From Titan's re-logging of historical core, recent petrology, geological mapping and geochemical studies, it is apparent that the higher-grade gold values at Meseta are associated with massive-sulphide polymetallic veins. Extensive haloes of lower grade gold mineralisation intersected in most drilling and channel sampling conducted to date is consistently related with free gold occurring in the intensely altered wallrock hosting extensive quartz veins of varying intensity.

This interpreted overlap of metal deposition at the interface of the overlapping Meseta gold and Copper Ridge porphyry targets has a potential economic impact on development of a larger mineralised system. The associated mineralisation types define potential for discovery of higher-grade copper-molybdenum mineralisation at depth beneath both the Copper Ridge and Meseta Gold areas suggesting significant size potential in un-tested extensions to the Copper Ridge porphyry system.

Titan is well advanced in progressing the Linderos Project to the next stage, with preparations for initial drilling to test the potential of these high priority targets underway.

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Titan Minerals Limited



Linderos Project Exploration Activity Update

The Linderos Project is located 20km southwest of the Company's flagship Dynasty Gold Project, in southern Ecuador's Loja Province. Located in a major flexure of the Andean Terrane, within a corridor of mineralisation extending from Peru through northern Ecuador, the Linderos Project sits within the metallogenic corridor which plays host to the majority of porphyry copper and epithermal gold deposits in southern Ecuador (Figure 1).

Titan's focus at Linderos has been to advance exploration activities by gathering further geological information through surface mapping and geochemical sampling at the Meseta Gold Prospect and the Copper Ridge Porphyry Prospect.

Previous work has highlighted the potential for high-grade gold mineralisation near surface within the Meseta Prospect, with results from recent mapping and surface channel sampling confirming the presence of strike extensive vein hosted high-grade gold at surface. Some of the better channel sample results include 4.1m @ 4.51g/t gold and 6.04g/t silver and 12.9m @ 2.27g/t gold and 2.87g/t silver in MGC010 and 10m @ 5.46g/t gold and 261.96g/t silver in MGC22-019.

The Copper Ridge prospect features surface copper-molybdenum anomalism highlighted by channel and soil sampling recently completed by Titan. Mapping has confirmed that copper-molybdenum mineralisation is centered on dioritic porphyry intrusions approximately one (1) kilometre in diameter, with these porphyritic intrusions also containing abundant mineralised quartz veining and copper oxide mineralisation at surface.

Some of the better results returned from recent channel sampling at Copper Ridge include 46m @ 0.24% copper and 9.71ppm molybdenum in channel CRC040; 32m @ 0.21% copper and 3.91ppm molybdenum in channel CRC051; and 26m @ 0.22% copper and 9.76ppm molybdenum in channel CRC037.

Historical diamond drilling at Copper Ridge has previously returned significant intersections including 99.75m @ 0.26% copper from 255m downhole (ERIKA01); and 84.85m @ 0.32% copper from surface to end of hole (ERIKA02). These historical drill holes have been relogged by the Titan exploration team, with logging suggesting that the higher-grade mineralisation is associated with a dioritic porphyry intrusion.

Of importance to note is that this inter-mineral porphyry phase has been observed to have potassic altered and veined xenoliths of an earlier/older porphyry. The porphyry responsible for the xenoliths has not been noted during field mapping or intersected in any of the drill holes. This earlier porphyry constitutes an exciting drill target as the early porphyries tend to have a higher tenor of copper mineralisation in mineralised porphyry systems.

Titan believes that the Copper Ridge prospect has the potential to contain a Tier 1 copper porphyry system, given its favourable location and evidence gathered from



historical and recent exploration activities by the Company. Titan's technical team is very encouraged by these results and are now well advanced in their preparations to drill test the high priority target areas identified at the Copper Ridge prospect.



Figure 1: Linderos Project location map in relation to the metallogenic belts from Ecuador (Egüez et al, 2020).



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Figure 2: Linderos Project mining concessions and location of main prospects.

Copper Ridge Prospect

The Company's focus for Copper Ridge has been to undertake comprehensive mapping and geochemical sampling to better understand the potential scale of porphyry mineralisation at the prospect (Figure 2). Geological mapping has included the definition of porphyry intrusive phases and their associated hydrothermal alteration assemblages, mapping of quartz vein abundance and characterisation of sulphide mineralisation.

Channel samples were taken along exposed porphyry outcrops in creeks and road cuttings, with the significant results giving support for further exploration at the prospect. Channel sampling focused on the western and central part of Copper Ridge where porphyry outcrop is well exposed (Figures 3 and 4).

Some of the better results returned from the channel sampling include 46m @ 0.24% copper, 9.71ppm molybdenum in channel CRC040, 32m @ 0.21% copper, 3.91ppm molybdenum in channel CRC051 and 26m @ 0.22% copper, 9.76ppm molybdenum in channel CRC037.

Refer to Figure 3 which highlights the locations of the significant channel samples



returned from Copper Ridge.

Mapping indicates that the centre of the system is a diorite porphyry, which grades out into a quartz-rich diorite porphyry. These porphyries form a central core that intrudes a granodiorite/batholith porphyry which covers a more extensive and peripheral zone to the central porphyry system (Figures 3 and 4).

Three different intrusion phases have been identified with the oldest to youngest based on cross-cutting intrusive features being:

- 1. Pre-mineralisation porphyry phase: Granodiorite porphyry
- 2. Porphyry phase 1: Quartz-diorite porphyry (inter-mineral)
- 3. Porphyry phase 2: Diorite porphyry (inter-mineral)

The quartz-diorite porphyry contains mineralised xenoliths of an earlier mineralised and altered porphyry also having mineralised quartz veins. The diorite porphyry truncates mineralised and unmineralised veins developed in quartz-diorite porphyry. The earlier mineralised porphyry, as evidenced in the xenoliths within the quartz-diorite porphyry has not been recognised in the relogging of historical drill core or mapped in the field.

Vein volume estimation was routinely recorded along two-metre intervals in channel mapping and historical drill hole logging, to provide a consistent methodology and dataset for quartz vein abundance estimation. The quartz vein abundance contours define the border of the intrusions, with increasing quartz vein abundance correlating with higher copper and molybdenum anomalies, as is commonly observed in large-scale porphyry deposits (Figures 3, 4 and 6).

A strong correlation between increasing vein abundance, copper and molybdenum grades and alteration intensity with depth is observed in historical drill holes ERIKA01 to ERIKA05. The density of quartz veinlets in stockwork array is evident throughout two east-west corridors, and these veinlets can reach a maximum width of two centimetre, representing to 10 to 20 percent of total rock volume (Figures 3 and 4, Plate 1).

Alteration grades from phyllic with intermittent silicification to argillic in the batholith, transitioning to propylitic in the volcanic sequence (Figure 5). The porphyry intrusions are characterized by intense phyllic alteration, interpreted to be overprinting potassic alteration. This hypothesis is based upon strong quartz vein development at surface and some relic patches of potassic alteration observed in historical drill holes.

In porphyry systems, argillic alteration can be related to the remnant top portion of the system, however in this instance it is considered more likely related to post depositional weathering processes causing leaching and subsequent clay alteration. In the upper portion of the project remnants of a silicified lithocap can be observed, where copper mineralisation, as well as the quartz vein development is virtually absent.



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Figure 3: Linderos Project, Copper Ridge prospect. Updated geological map showing mineralised quartz vein abundance contours, location of channels sampling and historical drill holes and copper results.



Figure 4: Linderos Project, Copper Ridge prospect. Updated geological map showing mineralised quartz vein abundance contours, location of channels sampling and historical drill holes and molybdenum results.



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Figure 5: Linderos Project, Copper Ridge prospect. Interpreted alteration map is displayed in relation to quartz vein envelopes, copper channel samples and historical drilling results.

In areas exhibiting the best copper grades at surface, the observed mineralisation is anhedral boxworks filled by hematite-goethite and evident pseudomorphs of pyrite (cubic boxworks filled by goethite) coincident with high intensity quartz vein stockwork development. Malachite patches and filling fractures can be found to a lesser extent (Plate 1). Relic pyrite, >2%, chalcopyrite, 1-2%, and minor bornite, area also preserved in some areas.

In terms of structural framework, the Nueva Esperanza and Meseta faults, westnorthwest to east-southeast oriented, are controlling the emplacement of intrusions, and distribution of mineralisation (Figures 3, 4 and 5).

The coherent copper and molybdenum soil geochemical anomalies correlate well with the channel sample geochemical results (0.1% - 0.3% copper) and the increase in mineralised quartz vein abundance (Figure 6). In the central portion of the Copper Ridge prospect the vein abundance and the tenor of copper and molybdenum decreases due to the development of a barren porphyry lithocap (Figure 5 and 6).





Plate 1: Mineralisation and quartz veinlet stockwork examples in the best areas of copper mineralisation.



Figure 6: Linderos project, Copper Ridge prospect. 200x200m soil survey highlighting coherent anomalies and classic zoning of a porphyry system, showing a central zone of copper, molybdenum and tungsten, followed by a doughnut shaped anomaly of selenium, tellurium and bismuth, and proposed drill hole locations.



Titan is planning to execute an initial five diamond drill hole program to test the Copper Ridge prospect. The drill holes are planned to a depth of 500m to test the coppermolybdenum porphyry system, with the aim being to intersect the earlier, better mineralised porphyry, which has been observed in historical drill core as xenoliths in inter-mineral mineralised porphyries (Figure 7).



Figure 7: Drilling plan for Copper Ridge prospect, Linderos project. Relationship between vein abundance and copper anomalies.

Key parameters used for drill design are the structural framework, porphyry intrusion chronology (i.e., porphyry phases), related quartz vein abundance, airborne magnetics and radiometrics, soil and channel sample geochemistry. The proposed drill holes are shown in relation to surface mapping and knowledge gained from historical ERIKA drillholes.

The first priority drill hole (PR-CRDDH22-001) is designed to intersect the >5% quartz vein abundance envelope (Figure 7). This drill target is also supported by soil and channel sample anomalies for copper and molybdenum, plus the encouraging copper mineralisation intersected in historical drill hole DHW005 (77.05m @ 0.19% copper from surface).

The second priority drill hole (PR-CRDDH22-002) is designed to test the channel sample anomalies of copper and molybdenum, confirming mineralisation intersected at depth in historical drill holes ERIKA02 and ERIKA02A. This hole is also aiming to intercept the >5% quartz vein abundance envelope (Figure 7).



Two further drill holes (PR-CRDDH22-003 and PR-CRDDH22-004) are designed to test the northern portion of the Copper Ridge prospect where an east-west corridor with good copper-gold values and associated with >5% guartz vein abundance has been identified in surface mapping (Figure 7).

The final drill hole (PR-CRDDH22-005) is designed to test the eastern continuity of the east-west mineralised corridor in the northern part of the prospect and is also supported by results observed at the end of the historical drillhole ERIKA01 (Figure 7).

Meseta Gold Prospect

A set of three east-west oriented veins have been mapped in the northern portion of the Meseta Gold prospect, along with a northwest-southeast oriented vein in the western portion of the prospect. A total of 26 channel samples for 680.15 metres have been successful in extending the known mineralised veins to the east for more than one (1) kilometre (Figure 8). Visible gold has been panned from quartz vein samples in channels MGC22-15 and MGC22-16.

Some of the more significant channel sample results returned from Meseta are listed below:

- 10.0m @ 5.46g/t gold and 261.95g/t silver in MGC22-019
- 4.5m @ 12.69g/t gold and 3.48g/t silver in MGC22-25
- 4.1m @ 4.51g/t gold and 6.04g/t silver; and 12.9m @ 2.27g/t gold and 2.87 silver in MGC010
- 3.5m @ 7.08g/t gold and 120.77g/t silver in MGC22-18
- 2.9m @ 9.81g/t gold and 2.69g/t silver in MGC22-24
- 3.0m @ 7.60g/t gold and 2.43g/t silver in MGC004
- 2.5m @ 6.91g/t gold and 248.76g/t silver in MGC22-16
- 4.3m @ 4.75g/t gold and 4.62g/t silver in MGC22-23
- 2.5m @ 4.86g/t gold and 130.48g/t silver in MGC22-17 •
- 3.0m @ 1.60g/t gold and 21.64g/t silver in MGC22-15 •
- 3.45m @ 1.56g/t gold and 2.70g/t silver in MGC22-22 •

These channel sample results confirm a mineralised east-west oriented structure with a strike extend of more than one (1) kilometre (Figure 8). Mineralisation is associated with quartz-pyrophyllite alteration, suggesting a deep high-sulphidation epithermal system. Sulphide mineralisation including pyrite, arsenopyrite, galena and in some cases visible gold was observed in channel samples.

The wider mineralised vein intercepts are hosted by a dacitic unit which exhibits a more brittle rheological behaviour, enabling mineralisation to be more penetrative, reaching up to 21 metres width in historical trenches developed by Core Gold in 2017. In the



volcanic unit the mineralised vein development is narrower, with an average thickness of 2-3 metres, although mineralised veins can be up to 10 metres wide as observed in channel MGC22-019 (10m @ 5.46g/t gold and 261.95g/t silver, including 6.0m @ 8.55g/t gold and 377.83g/t silver) which was sampled across a northwest-southeast mineralised structure (Figure 8).



Figure 8: Linderos project, Meseta Gold prospect. Updated geological map showing extent of mineralised veins that have quartzpyrophyllite alteration haloes suggesting mineralisation is associated with a deep seated high-sulphidation epithermal system.

Next Steps

Channel sampling of secondary creeks is in progress at the Copper Ridge prospect, with the aim of confirming the orientation of proposed drilling. Detailed mapping is also underway to define the contacts between the inter-mineral porphyry intrusions and the volcanic host rocks.

At the Meseta Gold prospect field exploration activities during the past month have been halted due to illegal mining activities. The Company have been liaising with local communities, local, regional and central government authorities to have the illegal miners removed from the property. The authorities have successfully removed the illegal miners from the Meseta Gold prospect and the Company is set to resume exploration activities in the coming weeks.

Social and environmental licenses will be required prior to commencing the proposed drilling campaign. As part of the environmental approval process, Titan will consult with the project's neighbouring communities to communicate the proposed drilling program and any environmental and/ or social impacts. The Company will also undertake flora, fauna and archaeological studies over areas impacted by mechanized earthmoving as part of the drill platform and access track construction.



The timeframe anticipated for environmental permitting is approximately one month, however the Company intends to build a camp facility to support exploration activities, so an additional month will be added to the timeframe.

About Linderos Project

The Linderos project is located 20 kilometres southwest of the Company's flagship Dynasty Gold Project and is comprised of four contiguous concessions totaling over 143km² located near the Peruvian border in southern Ecuador's Loja Province.

Located in a major flexure of the Andean Terrane, the Linderos 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.

The Project contains several prospects that the Company intends to advance through systematic exploration:

- Copper Ridge copper-molybdenum porphyry
- Meseta Gold roots of high-sulphidation gold system
- Capa Rosa polymetallic, potential blind porphyry
- Nueva Esperanza gold-silver high-sulphidation lodes
- Loma Alta potential gold porphyry
- Victoria potential gold porphyry

Copper Ridge Prospect

Copper Ridge is an advanced stage exploration prospect featuring outcropping copper and molybdenum anomalism with subsurface mineralisation confirmed in historical reconnaissance drilling. The Cu-Mo mineralised zone mapped in soil geochemistry is centered on dioritic porphyry intrusions that are approximately one (1) kilometre in diameter. The porphyry stock is haloed by a significant footprint of quartz stockworks and porphyry related alteration covering a >3km² area. At the northern and eastern margins of the porphyry, sizable argillic to advanced argillic alteration zones associated with extensive gold anomalism overprinted by multiple zones of high-grade epithermal related gold mineralization have been mapped.

Historical diamond drilling totals 16 holes for 2,061 metres with better results including:

- 99.75m @ 0.26% copper from 255m downhole ERIKA01
- 84.85m @ 0.32% copper (from surface to end of hole) ERIKA02



- 20m @ 0.21% copper from 181m downhole to EOH (open at depth) ERIKA02A
- 77.05m @ 0.19% copper (from surface to end of hole) DHW05
- 50.25m @ 0.33% copper (from surface to end of hole) DHW06

Refer to Titan Minerals ASX Release dated 21st July 2021 for further information on historical drilling intercepts reported at Copper Ridge.

Meseta Gold Prospect

To the immediate northeast of Copper Ridge, gold mineralisation across the Meseta Gold Prospect is hosted in steep to sub-vertical fault structures at the margins of the porphyry stock and is associated with strong silicification and oxidation of sulphides. Several features suggesting the presence of an intermediate to high-sulphidation gold system at these areas have been observed.

The Meseta Gold Prospect high grade epithermal gold mineralisation was initially identified in 2017 sampling of artisanal working on a break-away slope. The slope exposes a stockwork of oxidised veinlets capped by transported boulders forming a plateau of perched alluvial sediments. The alluvial cap covers mineralisation and alteration in the area forming a geochemically blind target beneath only a few meters of transported material.

In 2018, 11 diamond drill holes for 1,926 metres was completed, with drilling confirming higher grade gold mineralisation in fresh rock. All drill holes intersected extensive hydrothermal related alteration and localised gold mineralisation, with better intercepts reported including:

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

Refer to Titan Minerals ASX Release dated 21st July 2021 for further information on historical drilling intercepts reported at Meseta.

The high-grade epithermal gold at Meseta most likely represents a telescoped porphyry copper system where the hydrothermal system is cooling over time and gold mineralisation is overprinting the footprint of the porphyry systems. The reported high grade gold intercepts are associated with elevated lead-zinc anomalism, and are hosted within broad zones of elevated gold anomalism in a mineralised silica cap.

From Titan's re-logging of historical core, recent petrology, geological mapping, channel sampling and geochemical studies, it is apparent that the higher-grade gold values are associated with massive-sulphide polymetallic veins, while extensive haloes of lower grade gold mineralisation intersected in all drilling to date is consistently related with free gold occurring in the intensely altered wallrock hosting extensive quartz veins of varying intensity.



This interpreted overlap of metal deposition at the interface of the overlapping Meseta gold and Copper Ridge porphyry targets has a potential economic impact on development of a larger mineralised system. The associated mineralisation types define potential for discovery of higher-grade copper-molybdenum mineralization at depth beneath both the Copper Ridge and Meseta Gold areas suggesting significant size potential in untested extensions to the Copper Ridge porphyry system.

-ENDS-

Released with the authority of the Board.

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

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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 Consulting Geologist for the Company and has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which 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.



APPENDIX A

Table for Linderos Project significant channel sampling results. Locations given in WGS84-17S Datum.

	Channel	Azimuth (°)	Inclination (°)	Channel Length (m)	Easting (UTM)	Northing (UTM)	Elevation (m)	From (m)	To (m)	Sampled Interval (m)	Gold (g/t)	Silver (g/t)	Copper (%)	Molybdenum (ppm)
	CRC028	200	2	26.0	601122	0527401	200	0.00	26.00	26.00	0.01	0.79	0.17	7.13
)	CRCUZO	200	2	20.0	001152	9527401	509	Inclu	ding	16.00	0.01	1.00	0.20	8.87
	CRC030	318	1	14	601098	9527413	319	6.00	20.00	14.00	0.04	1.31	0.19	8.31
	CRC037	208	2	26.0	600010	0527207	303	0.00	26.00	26.00	0.01	0.82	0.22	9.76
1	CRC037	290	2	20.0	000910	9327397	505	Inclu	ding	12.00	0.01	0.92	0.27	10.48
	CRC038	286	-3	16.0	600885	9527419	297	0.00	16.00	16.00	0.02	0.39	0.23	8.94
$\left(\bigcap \right)$	CBC040	202	2	46.0	600970	0527422	207	0.00	46.00	46.00	0.03	1.17	0.24	9.71
リピ	CRC040	293	Z	40.0	600879	9527423	297	Inclu	ding	8.00	0.04	1.23	0.33	13.20
7	CRC041	308	-12	11.8	600895	9527457	306	0.00	11.80	11.80	0.04	0.72	0.22	13.14
	CRC051	226	-2	72.0	600856	9527602	288	28.00	60.00	32.00	0.03	0.51	0.21	3.91
	MGC002	203	18	19.2	601394	9528327	300	0.00	19.20	19.20	0.53	8.83	-	-
	MGC004	148	15	82.6	601302	9528145	321	0.00	3.00	3.00	7.60	2.43	-	-
	MGC007	180	-6	4.5	601493	9528286	322	2.00	2.50	0.50	5.95	77.8	-	-
\cup	MGC008	170	-10	3.2	601487	9528285	322	0.00	3.20	3.20	0.79	33.92	-	-
								13.00	25.90	12.90	2.27	2.87	-	-
	MGC010	1/12	1	160.3	601005	9528200	200	Inclu	ding	2.00	5.25	2.59	-	-
	MGC010	143	4	109.5	001005	9328200	303	53.20	57.30	4.10	4.51	6.04	-	-
								65.60	71.60	6	0.62	1.07	-	-
\leq	MGC22-015	163	3	3	601675	9528155	372	0.00	3.00	3.00	1.60	21.64	-	-
(\cap)	MGC22-016	166	1	2.5	601686	9528157	365	0.00	2.50	2.50	6.91	248.76	-	-
シビ	MGC22-017	180	-35	2.5	601696	9528157	367	0.00	2.50	2.50	4.86	130.48	-	-
	MGC22-018	163	15	3.5	601706	9528155	369	0.00	3.50	3.50	7.08	120.77	-	-
15	MGC22-019	206	2	10.0	600402	9528228	308	0.00	10.00	10.00	5.46	261.96	-	-

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							Incluc	ding	6.00	8.55	377.83	-	-
MGC22-022	148	20	3.45	601278	9528145	319	0.00	3.45	3.45	1.56	2.70	-	-
MGC22-023	188	24	4.3	601301	9528160	319	0.00	4.30	4.30	4.75	4.62	-	-
MGC22-024	174	12	4.4	601278	9528144	319	0.00	2.90	2.90	9.81	2.69	-	-
	140	10	F 0	601272	0529144	210	0.00	4.50	4.50	12.69	3.48	-	-
MGC22-025	143	10	5.0	001273	9528144	28144 319	Includ	ding	2.00	27.89	6.42	-	-
MGC22-026	180	25	5.0	601740	9528161	371	0.00	5.00	5.00	0.42	8.32	-	-

Table for Linderos Project significant rock chip sampling results. Locations given in WGS84-17S Datum.

15	Sample No.	Prospect	Easting (UTM)	Northing (UTM)	Elevation (m)	Gold (g/t)	Silver (g/t)	Copper (%)	Molybdenum (ppm)
\geq	TM015235	MESETA GOLD	600533	9528184	301	12.00	40.40	0.017	0.36
\cap	TM015239	MESETA GOLD	601665	9528141	360	26.90	715.00	0.021	0.24
P	TM015237	MESETA GOLD	601678	9528144	364	64.00	1,501.00	0.019	0.25
\sum	TM015355	MESETA GOLD	600887	9528339	305	42.00	9.03	0.121	0.12
	TM015356	MESETA GOLD	600910	9528325	305	61.60	103.00	0.097	0.09
	TM024327	MESETA GOLD	601438	9528182	338	10.25	41.40	0.058	1.37
	TM024357	MESETA GOLD	600230	9528255	290	24.20	8.81	0.020	2.62
D	TM024360	MESETA GOLD	600464	9528231	320	12.90	124.00	0.032	0.59
Y	TM029525	MESETA GOLD	600405	9528243	312	23.70	483.00	0.034	0.39
	TM024363	MESETA GOLD	600467	9528199	325	30.20	1,310.00	0.009	0.86
	TM024377	MESETA GOLD	601998	9528734	350	0.00	0.94	0.326	0.69
	TM024384	MESETA GOLD	601363	9528316	314	14.20	7.84	0.006	0.50
	TM024408	MESETA GOLD	601277	9528167	322	11.50	-	-	-
\bigcirc	TM024403	MESETA GOLD	601380	9528336	336	18.95	-	-	-
12	TM024401	MESETA GOLD	601693	9528153	362	46.90	-	-	-
	TM024412	MESETA GOLD	601005	9528145	324	11.70	7.54	0.002	0.74
15	TM024409	MESETA GOLD	601014	9528185	312	30.70	13.65	0.018	0.43

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	Sample No.	Prospect	Easting (UTM)	Northing (UTM)	Elevation (m)	Gold (g/t)	Silver (g/t)	Copper (%)	Molybdenum (ppm)
	TM024362	MESETA GOLD	600467	9528199	325	23.70	170.00	0.012	0.42
\geq	TM029533	MESETA GOLD	600200	9528190	310	22.50	11.55	0.003	0.59
	TM029543	MESETA GOLD	599524	9527723	348	11.30	19.05	0.005	3.77
	TM024228	COPPER RIDGE	601086	9527976	287	0.01	1.05	0.505	0.73
	TM024237	COPPER RIDGE	601145	9527483	321	0.07	0.62	0.686	13.4
	TM024240	COPPER RIDGE	600013	9527145	350	0.10	1.60	0.411	3.75
	TM024241	COPPER RIDGE	600921	9527376	302	0.02	0.92	0.866	10.8
$ \ge$	TM024274	COPPER RIDGE	602747	9525679	409	0.32	42.30	4.480	2.32
	TM024275	COPPER RIDGE	600927	9527725	293	0.21	52.00	1.925	1.67
15	TM024254	COPPER RIDGE	601686	9527516	276	0.06	11.85	1.560	22.8
	TM024261	COPPER RIDGE	601333	9527931	296	0.04	4.72	0.458	0.60
\bigcap	TM024285	COPPER RIDGE	600788	9527477	299	0.06	0.32	0.355	5.86
P	TM024315	COPPER RIDGE	601214	9527438	311	0.03	1.16	0.901	21.7
7	TM024344	COPPER RIDGE	601233	9527417	360	0.02	0.75	1.905	6.94
	TM024347	COPPER RIDGE	601335	9527371	355	0.06	0.26	1.080	1.54
	TM024349	COPPER RIDGE	601505	9527482	355	0.02	0.53	0.345	2.92
	TM024350	COPPER RIDGE	601238	9527415	403	0.01	0.41	0.522	14.55
D	TM024456	COPPER RIDGE	600884	9526987	320	2.97	1.02	0.607	2.81
U	TM029548	COPPER RIDGE	601530	9526543	449	4.79	357.00	0.396	153.50
	TM015215	CAPA ROSA	602073	9526262	485	13.00	15.65	0.045	6.05
	TM029554	CAPA ROSA	601178	9524875	331	12.05	88.50	0.058	6.34
	TM029553	CAPA ROSA	601173	9524876	386	16.05	197.00	0.094	2.85
	TM015206	LOMA ALTA	604788	9522741	394	1.05	16.25	0.315	1.17

F

Section 1 Sampling Techniques and Data

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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 hol 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 Public Report. In cases where 'industry standard' work has been done this would relatively simple (eg 'reverse circulation drilling was used to obtai m samples from which 3 kg was pulverised to produce a 30 g chard for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problem Unusual commodities or mineralisation types (eg submarine nodu may warrant disclosure of detailed information. 	 Pr • Reported channel sampling was done as continuous and equal sampling of an excavated exposure of in-situ material to provide a representative sample of material sampled Peported rock chip samples are composite grab samples collected from in situ outcrops selected by the geologist Reported soil sample anomalies were generated from surface soil samples taken on a nominal 200 x 200 m spaced grid and a 50x100m infill grid in Meseta Gold prospect. Samples were taken from an approximate depth of 40-50 cm below surface in the B horizon. Sieving is executed in the ALS laboratory following the preparation package PREP-41, which consists of drying at <60°C/140°F, sieve sample to -180 micron (80 mesh).
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 other type, whether core is oriented and if so, by what method, etc 	 Channel sampling completed on road cuts and other exposures cleared by mechanized equipment and channels dug by hand including exposures at several artisanal workings within the project area. <i>or</i> <i>c)</i>.
Drill sample recovery	 Method of recording and assessing core and chip sample recover 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. 	Not applicable to the sample method reported – No new drilling in the reported exploration results.
Logging	 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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged 	 Reported channel samples are logged geologically to a level of detail to support mineral resource estimation in accordance with principle of the JORC Code. No data acquisition has commenced at the current stage of the project in support of geotechnical or metallurgical studies. Logging is recorded for all sampled and mapped intervals with qualitative logging completed for lithological composition and texture, colour, structures, veining, alteration, and quantitative logging for observed mineralogy, and estimated mineral content of quartz sulphide minerals. All channels sampled are photographed at the time of sampling. All sampled intercepts in this report are logged for geology and alteration.



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Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core 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. 	 No core included in the reported exploration results Channel samples collected on nominal 2m intervals, with localised variations based on exposure and geological contacts as defined by the geologist in the field. Samples are sent for analysis as collected in their entirety and no site prep is undertaken Reported channel samples are deemed of sufficient size and representative in nature across measured widths to be appropriate. Rock samples however do not have appropriate sample prep or sample methodology to be considered a representative sample and are not intended for use in a minerals resource estimation Reported soil samples were collected from the B horizon of soil the profile. All soil samples are collected in the field by trained Titan exploration personnel. Soil sampling is considered representative of the in-situ material collected, and the sample fraction/ size is considered appropriate for this type of deposit. Soil samples are sent for analysis as collected in their entirety and no on-site preparation is undertaken Field duplicates are taken regularly to assess the quality of field sampling procedures (and/or heterogeneity of the sample material) No studies have yet been completed to assess heterogeneity of the sample medium, however samples collected are of sufficient size to meet industry best practices for the style of mineralisation being assessed.
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	 All reported results are submitted to an accredited independent laboratory and are analysed by methods considered 'near total' assay techniques as outlined in previous sections of this table. No geophysical tools used in reported channel sampling. Quality control and quality assurance procedures ("QAQC") are defined in Titan sampling procedure documents and for the reported results QAQC for reported channel sampling work is comprised of 4.8% blanks, 4% field duplicates, and 3.4% certified reference material (standards) for an aggregate 12% of QAQC independent of the laboratories in-house QAQC. All results are checked before upload to the digital database to confirm they are performing as expected.
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. 	 The Company has duplicated several sample samples reported by previous operators, where sampling work lacked adequate reporting of QAQC to validate previous work, and also previous assay techniques were constrained to only Au-Ag. Repeated sampling has confirmed gold and silver anomalism at reported locations, noting on average increases to peak values of gold at several locations, and additional analysis provides data on strong copper and zinc related mineralisation associated with the gold and silver values. No new drilling is included in the reported results, and no twinning has been undertaken. Field data is captured on both hard copy and digital formats, and transmitted to the database management team for upload to a managed Access and MX deposits database controlled by the database manager. 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. 	 Soil, trench and channel samples are all located by a single point at the Channel's "Start point" surveyed by handheld GPS. Surveys are accurate to +/- 5m in horizontal precision. The sample locations are then measured by tape and azimuth from the Start Point or extrapolated from the start point based on dip and azimuth of the trench. All surveyed data is collected and stored in WGS84 datum Zone 17south

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Criteria	JC	DRC Code explanation	Co	ommentary
)	•	Specification of the grid system used Quality and adequacy of topographic control.	•	Topographic control is based on WorldDEM satellite DEM datasets with 12m sample density. The method of topographic control is deemed adequate at this exploration stage of the project.
Data spacing and distribution	•	Data spacing for reporting of Exploration Results.	•	No systematic grid for mapping, rock chip sampling and channel sampling is defined, with early-stage exploration work constrained to existing outcrops, road cuts and areas of artisanal workings. Where continuous exposures have been cleared in road cuts or artisanal workings providing a surface for representative sampling, sampling is complete on nominal 2m intervals.
	•	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.	•	Reported data to date for the project does not have adequate spacing or distribution sufficient to establish continuity of mineralisation or underpin a mineral resource estimation, and further systematic exploration including drilling is required. No sample compositing applied in reported 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.	•	Geometry of the mineralisation identified in drilling has not been outlined with adequate sample density to comment on potential for bias in sampling. Relationship between drill orientation and orientation of key mineralised structures is not yet defined and requires further drilling to assess.
Sample security	•	The measures taken to ensure sample security.	•	Samples were collected by Titan Minerals geologists and held in a secured yard at Macara prior to being transported by a company vehicle to the Celica exploration office where laboratory and dispatched paperwork is processed. Samples are enclosed in polyweave sacks for delivery to the laboratory and weighed individually prior to shipment and upon arrival at the laboratory. 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 independent audit of project data or umpire laboratory checks have been undertaken by Titan for the reported results.

Section 2 - Reporting of Exploration Results

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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 and Zamora-Chinchipe Provinces of Ecuador. The Linderos project is comprised of four concessions in the Loja Province with Titan holding 100% interest in the Linderos E, Naranjo, Dynasty 1, and Chorrera, concessions totalling an area of 143 square kilometres. Mineral concessions in Ecuador are subject to government royalty, the amount of which varies from 3% to 5% 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. 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 adhered to for the following year submitted to the Environmental Department of the Ministry of Energy and Mines. 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 Ministry of Energy and Mines in accordance with the Mining Law on such terms and conditions as defined in the Mining Law. The Company is not aware of any social, cultural, or environmental impediments to obtaining a licence to operate in the area at the time of this report beyond the scope of regular permitting requirements as required under Ecuadorian Law.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 Linderos Project 1974, The United Nations completes a 9-hole drilling program following a regional scale geochemical survey 1978, the DGGM and Mission Espanola complete a 2-hole program totalling just over 400m drilled 2004 until 2005 Dynasty Mining and Metals (later Core Gold Inc.) completed mapping, limited ground geophysical surveys and exploration sampling activity including 5 diamond holes totalling 1,146m drilled and 2,033 rock channel samples were taken from 1,161m of surface trenches 2007 to 2008, a Joint Venture arrangement with Mariana Resource Ltd ("Mariana") completed soil surveys and 8 diamond drill holes, of which six holes totalling 858m drilled are located within the Linderos Project's Chorrera concession 2017-19, Core Gold Inc. (formerly Dynasty Metals and Mining Inc.) completed a series of 5m spaced trenches over a 100, x 150m area of artisanal mining operations to define a small zone of high-grade gold mineralisation and followed-up in 2018 with 11 diamond holes from 5 platforms testing the mineralisation at surface and ~1km east of outcropping surface mineralisation.
Geology	• Deposit type, geological setting and style of mineralisation.	 Regionally, the Linderos project lies within the compressional Inter-Andean Graben that is bounded by regional scale faults. The graben is composed of multiple Miocene aged intrusions within thick Oligocene to Miocene aged volcano- sedimentary sequences overlying the Cretaceous aged Tangula Batholith that extends for over 80km from northern Peru into southern Ecuador. Local volcanic rocks 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.

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Criteria	JORC Code explanation	Commentary
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 exploration results with representative sampling are included in Appendix A of this report.
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 	 No high-grade assay cut was applied to reported exploration results. A lower cut-off of 0.1% copper and 0.5g/t Au was applied to generate significant intercepts in Appendix A. Channel samples collected on nominal 2m intervals. Sample intervals are varied locally at the site geologist's discretion to segregate sampling of key geological features (contacts) or sample intervals can be broken to align with substantial changes in alternation or mineralisation styles. Where higher grade copper is located within reported mineralised intervals at a 0.1% copper cut-off, locally an additional intercept is provided as "including" within the reported intercepts at a 0.2% copper cut-off is provided in the Appendix A
	 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 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'). 	 All reported intersections are measured sample lengths and are not to be interpreted as true thickness. Exploration to date is not sufficient enough to define geometry or continuity of mineralisation reported. True widths to be estimated with completion of more advance exploration and commencement of both oriented core drilling and commencement of 3D visualisation and modelling work with project advancing to a scoping stage.
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.



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Criteria	JORC Code explanation	Commentary
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 are included in this report, and location of all results are included in their entirety in the figures provided. Surface sampling in systematic channels is represented in figures and graphics as rock chip samples for all historical sampling completed.
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. 	 Geological interpretation and summary of previously reported geochemical survey results included in figures. No other available datasets are considered relevant to reported exploration results. No metallurgical test results, bulk density, or groundwater tests have been completed on areas related to the 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).	Included in body of report.
	 Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	Included in body of report as deemed appropriate by the competent person.