ASX ANNOUNCEMENT

20 December 2022

COPPER-MOLYBDENUM-GOLD PORPHYRY MINERALISATION DISCOVERED AT COPPER RIDGE

Titan Minerals Limited (Titan or the Company) (ASX:TTM) is pleased to provide results from the first two diamond drill holes from the Company's maiden drilling campaign at the Copper Ridge Porphyry prospect at the Linderos Project in southern Ecuador.

Key Highlights include:

- **Wide intervals of mineralised porphyry intersected from shallow depths in diamond drilling at Copper Ridge, with significant results including:**
    - **308m grading 0.4% Copper Eq[1] from 54m downhole in CRDD22-003,**
        - **including a higher-grade intercept of 76m grading 0.5% Copper Eq from 132m downhole; and**
    - **91m grading 0.3% Copper Eq from 484m downhole in CRDD22-003- mineralised to end of hole, and remains open**
    - **52m grading 0.3% Copper Eq from 82m downhole in CRDD22-001**
- **Key geological and geochemical datasets are being assembled to facilitate Phase 2 drill planning at Copper Ridge**

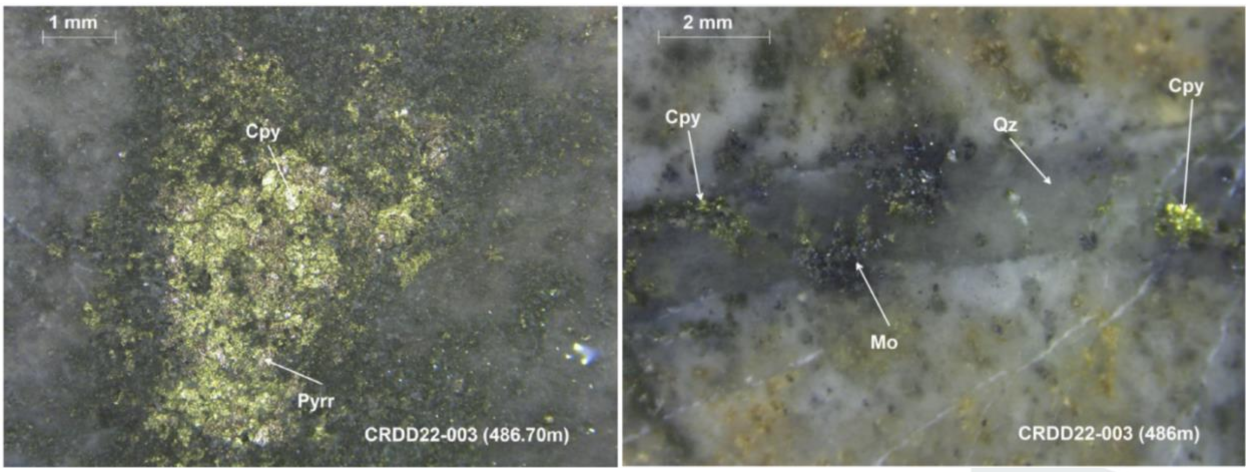

Plate 1: Examples of sulphide mineralisation in CRDD22-003- chalcopyrite (cpy), pyrite (py), molybdenite (mo), pyrrhotite (pyrr)

[1] **Copper Equivalent (Cu Eq) values – Requirements under the JORC Code**

- Assumed commodity prices for the calculation of Copper Equivalent (Cu Eq) is Cu US$3.00/lb, Au US$1,700/oz, Mo US$14/lb and Ag US$20/oz
- Recoveries are assumed from similar deposits: Cu = 85%, Au = 65%, Ag = 65%, Mo = 80%
- Cu Eq (%) was calculated using the following formula: ((Cu% x Cu price 1% per tonne x Cu recovery) + (Au(g/t) x Au price per g/t x Au recovery) + (Mo ppm x Mo price per g/t x Mo recovery) + Ag ppm x Ag price per g/t x Ag recovery)) / (Cu price 1% per tonne x Cu recovery). **Cu Eq (%) = Cu (%) + (0.54 x Au (g/t)) + (0.00037 x Mo (ppm)) + (0.0063 x Ag (ppm))**
- TTM confirms that it is the Company's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.

Level 1/35 Richardson Street,
West Perth WA 6005
+61 8 6375 2700
info@titanminerals.com.au
titanminerals.com.au
ASX: TTM

Titan's Executive Director and CEO Matthew Carr commented:

"We are very pleased to have met with such success on our maiden drilling campaign at Copper Ridge, with results now confirming the presence of wide intervals of mineralised porphyry, with significant copper, molybdenum, gold and silver returned from shallow depths and extending to the end of hole in CRDD22-003."

"Once all assay results have been received, we will be well positioned to target additional porphyry mineralisation, with foundation geochemical and geological datasets being established to support future exploration programs at Copper Ridge. We believe that this is the beginning of what could be a significant discovery."

"2022 was a monumental year for our Company in Ecuador. We've had dedicated teams working on each project collecting important geological layers and building our understanding, which has resulted in the identification of key targets that will drive size, scale, and potential new discoveries at Linderos, Dynasty and Copper Duke in 2023."

"The level of interest we've had from large corporates and strategic investors in our projects this year is something we haven't experienced to date, with multiple site visits hosted in recent months and advanced discussions held."

"After undertaking site visits, walking the ground and visualising outcropping porphyry mineralisation for themselves, strategic investors are clearly excited about the potential opportunity of all three projects, which puts Titan in an enviable position."

"As a board we will review our position and make strategic decisions in the best interest of our shareholders in what we expect to be a very busy and exciting 2023."

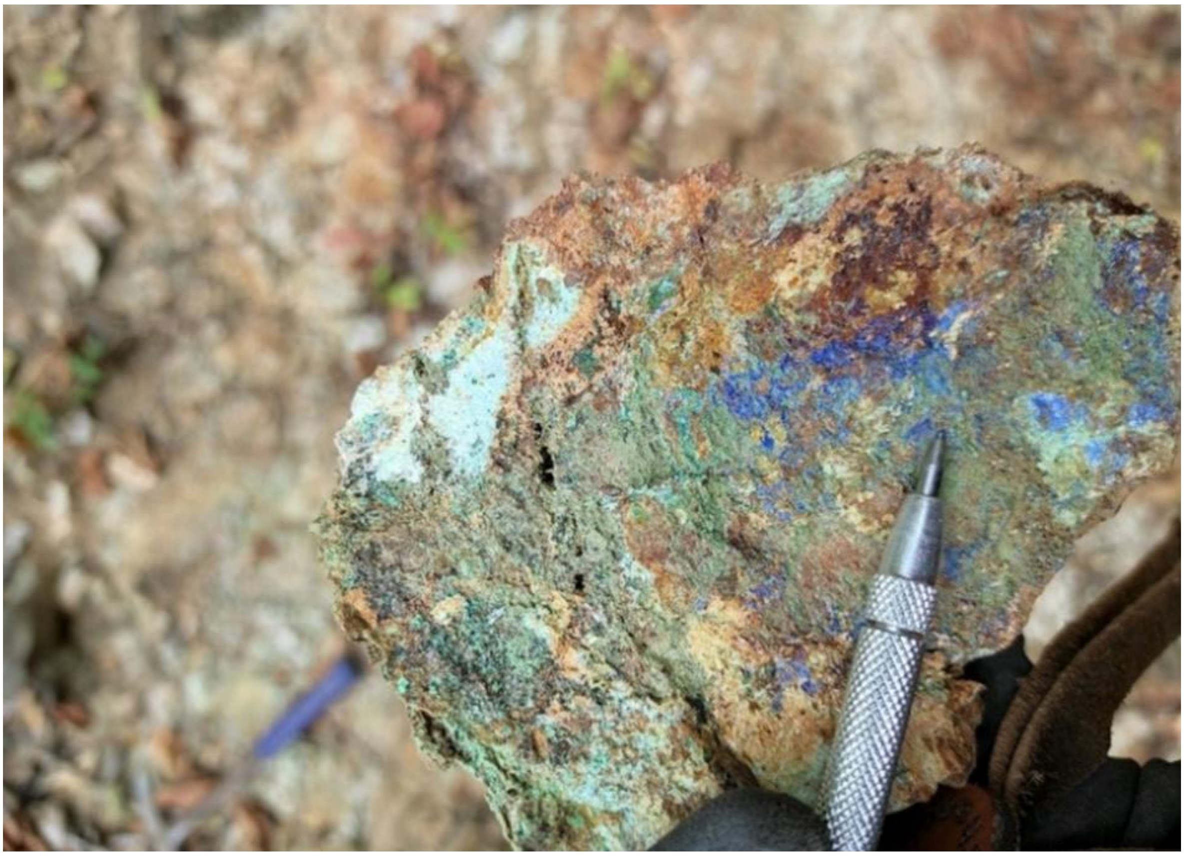

Plate 2: Hand specimen displaying azurite and malachite copper oxide mineralisation taken from the Copper Ridge prospect, Linderos Project

Linderos Project– Copper Ridge Porphyry Prospect Initial Drilling Results

The Company has completed a maiden campaign comprising eight diamond drill holes for a total of 3,700 metres at the Copper Ridge Porphyry prospect (**Copper Ridge**) on its Linderos Project in Southern Ecuador. Drilling was designed to target porphyry mineralisation highlighted by surface mapping and geochemistry, and limited historical drilling undertaken at the prospect.

Pleasingly, diamond drilling has been successful in intersecting wide intervals of disseminated and vein hosted porphyry style chalcopyrite-molybdenite-pyrite±pyrrhotite mineralisation from shallow depths.

Assay results have been received for the first two diamond drill holes, confirming the presence of wide intervals of copper-molybdenum±gold±silver from shallow depths.

Significant intersections for CRDD22-001 and CRDD22-003 are detailed in Table 1 and below:

- **308m grading 0.4% Copper Eq** from 54m downhole in CRDD22-003
    - including a higher-grade interval of **76m grading 0.5% Copper Eq** from 132m downhole; and
- **91m grading 0.3% Copper Eq** from 484m downhole in CRDD22-003, with mineralisation remaining open and extending to the end of hole
- **52m grading 0.3% Copper Eq** from 82m downhole in CRDD22-001

The 308 metre intercept of **0.4% Copper Eq (0.29% Cu, 30ppm Mo, 0.08g/t Au, and 1.24g/t Ag)** from 54 metres downhole in CRDD22-003 is hosted within a diorite porphyry, which is variably intruded by dykes of crowded quartz diorite porphyry and granodiorite porphyry.

Mineralisation exhibits secondary biotite plus green-grey sericite and pervasive quartz-alkali feldspar, defining an early to transitional stage of potassic alteration. Disseminated sulphides range from 1 to 2% in volume, with chalcopyrite content greater than pyrrhotite.

Most importantly, results from drilling have confirmed porphyry mineralisation to extend from surface to 400 metres vertical depth, with diamond drill hole CRDD22-003 ending in mineralisation at 575m downhole.

Titan's drilling has now confirmed the large-scale porphyry potential at Copper Ridge and gives further confidence to continue targeting porphyry mineralisation at the project, with considerable scope for both lateral and depth extensions apparent.

Table 1. Significant Intersections returned from Copper Ridge Diamond Drilling

Hole ID	From (m)	To (m)	Width (m)	Cu (%)	Au (g/t)	Ag (ppm)	Mo (ppm)	Cu Eq (%)[1]
CRDD22-001	20	46	26	0.09	0.03	0.14	58.02	0.1
	82	134	52	0.25	0.07	0.80	44.75	0.3
	436	528	92	0.09	0.01	0.28	56.47	0.1
CRDD22-003	0	28	28	0.17	0.01	0.82	2.50	0.2
	54	362	308	0.29	0.08	1.24	29.94	0.4
	Including:							
	132	***208***	***76***	***0.39***	***0.12***	***1.76***	***53.28***	***0.5***
	446	456	10	0.21	0.08	0.66	63.55	0.3
	484	575.3 (EOH)	91.3	0.28	0.09	0.84	10.08	0.3

Copper Ridge Mineralisation Observations

The better tenor mineralisation is predominantly hosted with a diorite porphyry unit, an early-stage intra-mineral porphyry, composed of phenocrysts of plagioclase and hornblende, and crosscut by several later stage dykes of intra-mineral porphyry.

Although the cross-cutting younger intra-mineral porphyry contains a slightly lower tenor of mineralisation, it has the potential to host good mineralisation at depth due to the higher presence of hornblende phenocrysts.

Sulphide mineralisation observed at Copper Ridge includes chalcopyrite, pyrite, molybdenite and pyrrhotite, both disseminated in groundmass and within quartz veinlets.

Disseminated chalcopyrite (cpy) is observed to replace mafic minerals. Molybdenite (mo) is observed in disseminated in the groundmass and is also present in the margins of B-type quartz veinlets, and in minor cases as sutures. Pyrrhotite (po) is disseminated and is observed to replace mafic minerals in zones of potassic alteration. Magnetite (mt) is disseminated and observed to be overprinting/ replacing mafic minerals.

Alteration types observed include potassic, phyllic, and intermediate argillic, with several complex phases of alteration overprinting evident in drill core.

Potassic alteration (biotite-green grey sericite-quartz-chlorite±magnetite) is pervasive and overprints both diorite porphyry and andesites. Phyllic alteration (quartz-sericite-pyrite) is seen to overprint potassic alteration. Intermediate argillic alteration (chlorite-smectite-illite±carbonates), is pervasive and occurs as veins, overprinting earlier potassic and phyllic alteration.

Vein styles are described below, with higher grade mineralisation closely associated with A-type and B-type quartz veinlets.

- A-type quartz veinlets: usually as stockwork arrays, massive texture, translucent, grey colour, 2 to 6mm wide.
- B-type quartz veinlets: occurring as isolated veinlets, massive texture, translucent, grey colour, 2 to 6mm wide. Veinlets are filled by quartz, molybdenum on edges and chalcopyrite and pyrite in sutures.
- Stockworks of coarse milky quartz veinlets: massive texture, 5 to 30mm wide.
- Isolated sulphide veinlets: 2 mm wide, composed of variable amounts of pyrite and chalcopyrite.
- D-type quartz veinlets: characterized by isolated and sheeted arrays, massive texture, 3mm wide. Fillings of pyrite, quartz, carbonates, with sericite-chlorite halos, ranging 1-2cm in width.

Next Steps

Systematic logging of key geological features such as structural datasets, lithology, alteration, sulphide mineralogy (percentages and ratios), vein style and abundance has been a focus of the technical team, with the assembly of these datasets plus spectral data, magnetic susceptibility, and bulk density, providing a solid foundation for future exploration work programs.

Three-dimensional modelling of geological datasets has commenced with sectional interpretations being completed to improve the Company's understanding of the controls, and potential scale of the porphyry mineral system being targeted. Attributes to be modelled include:

1. Lithology & Geochronology

- Modelling lithology and understanding the timing / relationship between porphyry phases will assist in better targeting the early- intra mineral porphyry units, as these as are understood to host better mineralisation

2. Vein abundance

- Vein volume estimation has been routinely recorded to provide a consistent dataset for quartz vein abundance estimation.
- Quartz vein abundance contours can be used to define the borders of porphyry intrusions, with increasing quartz vein abundance commonly correlating with an increase in chalcopyrite and molybdenite mineralisation, as is typically observed in large-scale porphyry deposits.

3. Chalcopyrite-Pyrite (cpy-py) Ratio

- Three-dimensional modelling of cpy-py ratio can be used as a tool for vectoring towards better mineralisation, with a higher cpy-py ratio strongly correlated with better copper mineralisation.

Once all assays have been received from Titan's first phase of drilling at Copper Ridge, grade iso-surfaces will be generated for copper-gold-silver-molybdenum and pathfinder elements typically found in porphyry deposits.

It is anticipated that interpolation of multi-element grade iso-surfaces will assist in understanding any elemental zonation, and the vertical level and potential scale of the porphyry system.

Titan's technical team is assessing the amenability of an Induced Polarisation (IP) geophysical survey for mapping sub-surface mineralisation at Copper Ridge. If deemed a suitable method, the IP survey will commence in the first quarter of 2023.

Further surface mapping and sampling is being undertaken by Titan's geologists to consolidate its understanding on porphyry mineralisation controls at Copper Ridge, and to align surface mapping with logging of recently completed diamond drilling.

Petrographic analysis is planned to determine detailed alteration mineral assemblages and to understand the relationship with associated sulphide occurrences.

Once the 3-Dimesnional lithological model is complete, a selection of representative units will be sent for age dating to determine the ages of intrusive units and mineralisation events.

The Company looks forward to providing further updates as assay results are received for the Copper Ridge and Meseta prospects at its Linderos Project, and as other exploration work programs are completed.

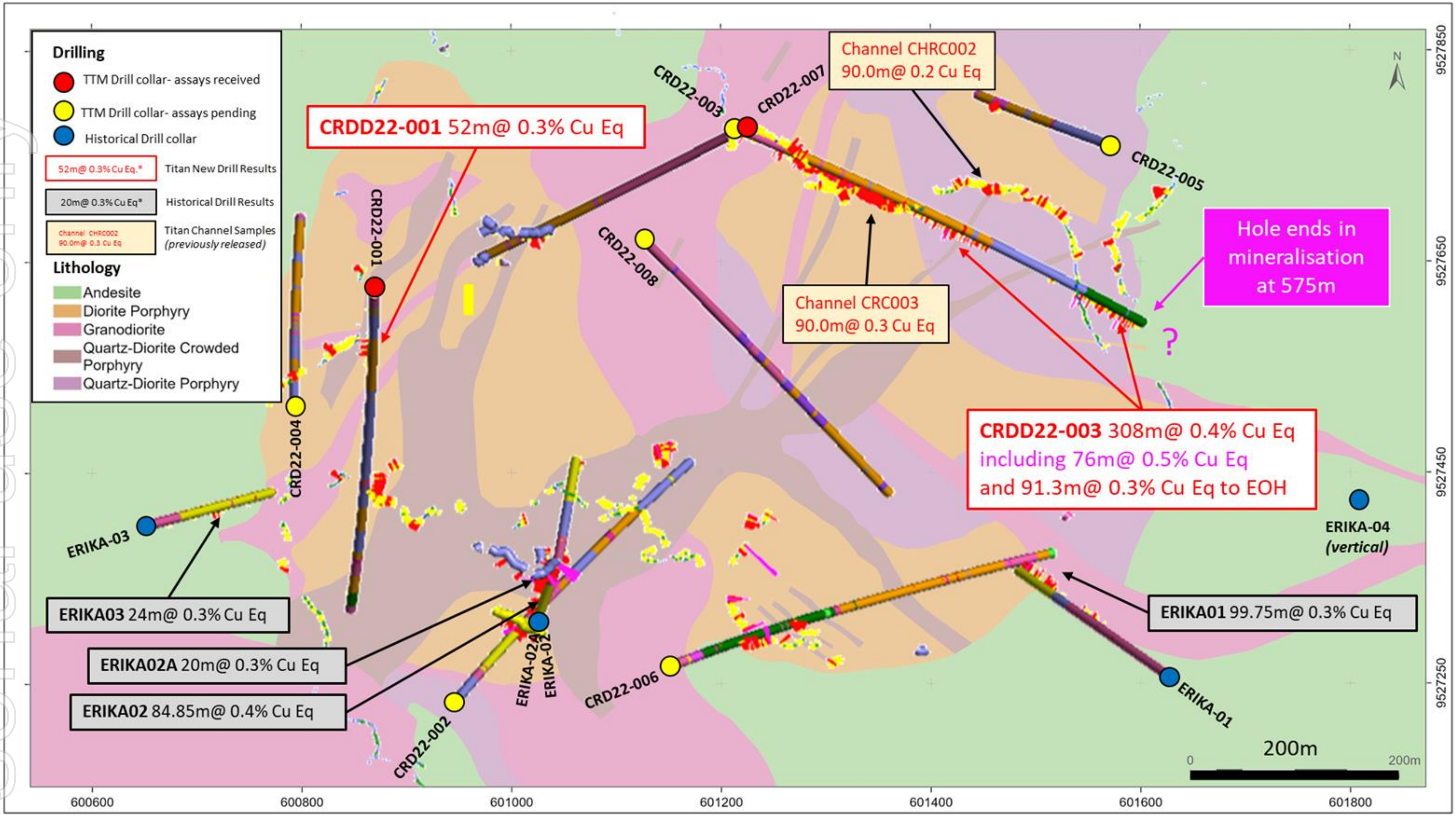

Figure 1: Copper Ridge plan view displaying interpreted geology, drilling, new results for Hole CRDD22-001 and CRDD22-003 and selected channel sample and historical drilling results annotated

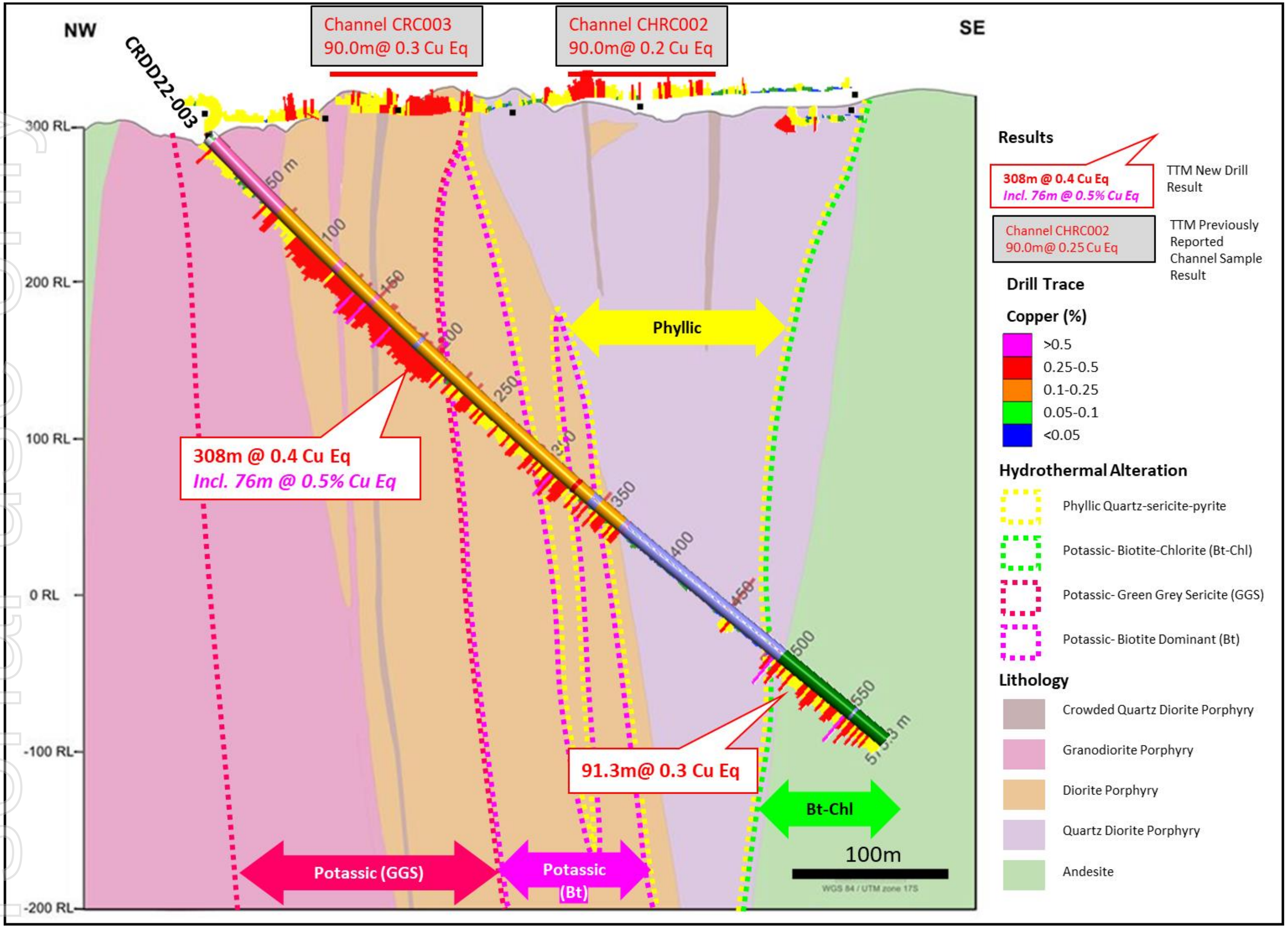

Figure 2: Copper Ridge Cross Section, displaying Titan's Drilling, historical drilling, and new Results for CRDD22-003

About The Linderos Project

The Linderos project is located 20km southwest of the Company's flagship Dynasty Gold Project and is comprised of four contiguous concessions totalling 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.

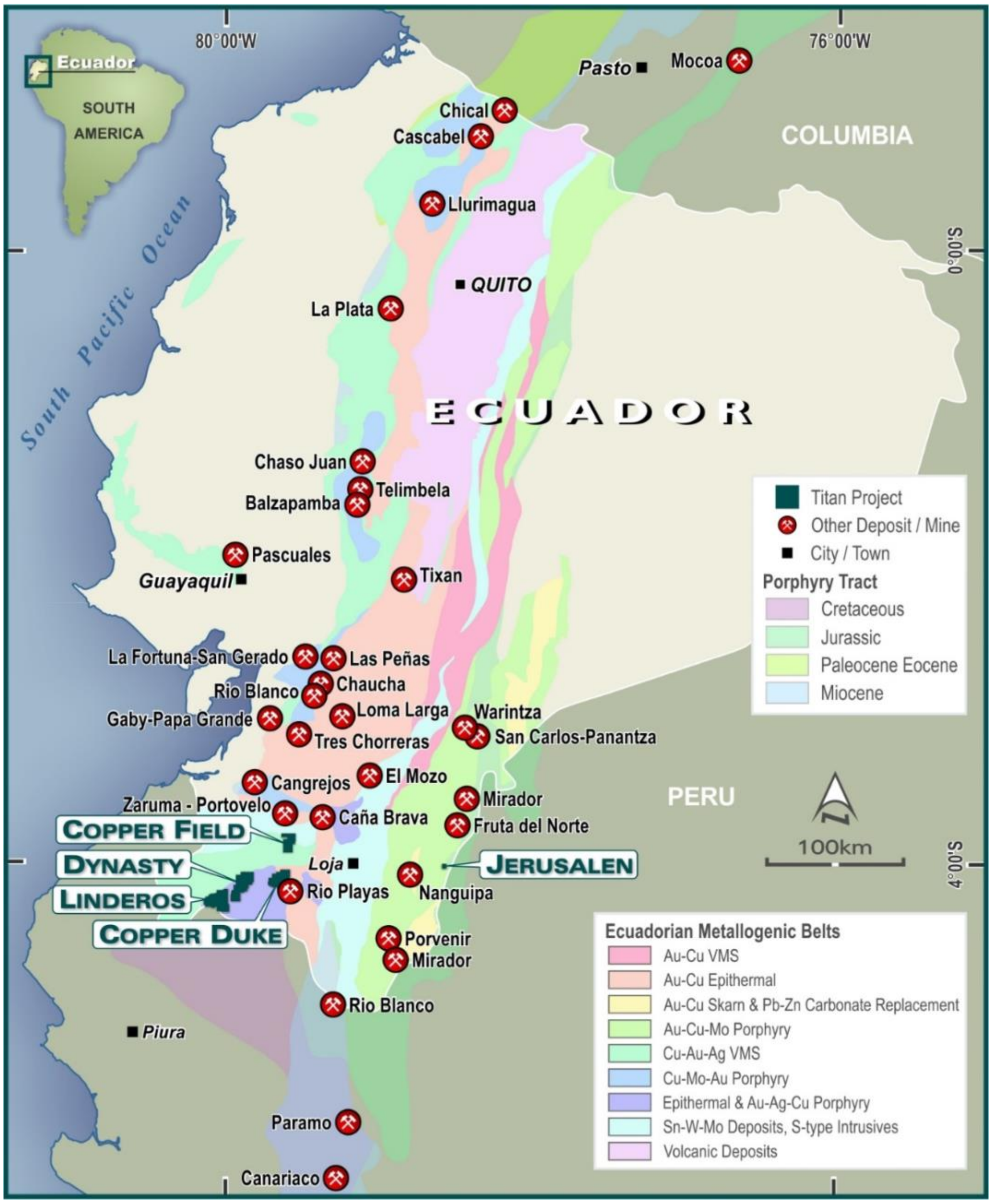

Figure 3: Linderos Project location map in relation to Titan Minerals Southern Ecuador Projects, and the metallogenic belts of Ecuador

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.

ENDS-

Released with the authority of the Board.

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

Contact details:

Investor Relations: Australia

Matt Carr – Chief Executive Officer
E: matthew.carr@titanminerals.com.au
Ph: +61 8 6375 2700

Investor Relations: North America

Tamara Brown – Non-Executive Director
E: tamara.brown@titanminerals.com.au

Appendix 1.

Table 1. Copper Ridge Diamond Drillhole details

Hole_ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)
CRDD22-001	600870	9527624	277	180	-60	530.00
CRDD22-002	600946	9527233	321	040	-60	604.27
CRDD22-003	601219	9527782	296	112	-45	575.30
CRDD22-004	600793	9527514	264	000	-65	381.36
CRDD22-006	601154	9527269	310	070	-48	557.62
CRDD22-005	601585	9527778	295	290	-50	196.33
CRDD22-007	601218	9527780	296	242	-45	368.07
CRDD22-008	601130	9527674	346	135	-50	488.97

Note. All drill hole coordinates are in WGS84 Zone 17 south and all drill holes are diamond core from surface

Table 2. Historical significant drilling intersections reported as Copper Equivalent in this release

Hole ID	From (m)	To (m)	Width (m)	Cu (%)	Au (g/t)	Ag (ppm)	Mo (ppm)	Cu Eq (%)[1]
ERIKA01	255.55	354.65	99.1	0.26	0.06	0.55	20.12	0.3
ERIKA02	0	85	85	0.32	0.054	1.19	42.97	0.4
ERIKA02A	0	28.5	28.5	0.25	0.02	1.55	7.00	0.3
ERIKA03	126	150	24	0.23	0.02	0.84	43.83	0.3

Table 3. Significant Channel Samples reported as Copper Equivalent

Hole ID	From (m)	To (m)	Width (m)	Cu (%)	Au (g/t)	Ag (ppm)	Mo (ppm)	Cu Eq (%)[1]
CRC003	18	108	90	0.27	0.13	1.02	8.29	0.3
CHRC002	0	90	90	0.21	0.05	0.95	8.79	0.2

[1] **Copper Equivalent (Cu Eq) values – Requirements under the JORC Code**

- Assumed commodity prices for the calculation of Copper Equivalent (Cu Eq) is Cu US$3.00/lb, Au US$1,700/oz, Mo US$14/lb and Ag US$20/oz
- Recoveries are assumed from similar deposits: Cu = 85%, Au = 65%, Ag = 65%, Mo = 80%
- Cu Eq (%) was calculated using the following formula: ((Cu% x Cu price 1% per tonne x Cu recovery) + (Au(g/t) x Au price per g/t x Au recovery) + (Mo ppm x Mo price per g/t x Mo recovery) + Ag ppm x Ag price per g/t x Ag recovery)) / (Cu price 1% per tonne x Cu recovery). **Cu Eq (%) = Cu (%) + (0.54 x Au (g/t)) + (0.00037 x Mo (ppm)) + (0.0063 x Ag (ppm))**
- TTM confirms that it is the Company's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.

Linderos Project - 2012 JORC Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used* • *Aspects of the determination of mineralisation that are Material to the Public Report.* *In cases where 'industry standard' work has been done this would be relatively simple (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.*	• Diamond drilling method was used to obtain HTW and NTW core (71.4/56.23 mm diameter respectively) for density and chemical analyses. ½ or ¼ core was submitted for analysis. • Downhole survey and core orientation tools are used, Diamond core is halved with a diamond saw to ensure a representative sample. • Channel sampling is completed as representative cut samples across measured intervals cut with hammer or hammer and chisel techniques. • Samples were crushed to better than 70% passing a 2mm mesh and split to produce a 250g charge pulverised to 200 mesh to form a pulp sample. • 50g charges were split from each pulp for fire assay for Au with an atomic absorption (AA) finish and samples exceeding 10g/t Au (upper limit) have a separate 30g charge split and analysed by fire assay with a gravimetric finish. Samples returning >10ppm Au from the AA finish technique are re-analysed by 30g fire assay for Au with a gravimetric finish. • An additional charge is split from sample for four acid digests with ICP-MS reporting a 48-element suite. • Within the 48 elements suite, overlimit analyses of a 5-element suite are performed with an ore grade technique (ICP-AES) if any one element for Ag, Pb, Zn, Cu, Mo exceeds detection limits in the ICP-MS method.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• 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. • Drilling HTW diameter core with standard tube core barrels retrieved by wire line, reducing to NTW diameter core as required at depth. Drill core is oriented by Reflex ACT III and True Core tools, • Core is oriented with the Devicore device putting the orientation mark in the bottom of hole. Reliable oriented core is defined once at least two runs in a row have less than 10mm in rotation offset at HTW diameter and less than 8mm in NTW.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Diamond sample recovery is recorded on a run-by-run basis during drilling with measurements of recovered material measured against drill advance. • Diamond core is split in weathered material, and in competent unweathered/fresh rock is cut by a diamond saw to maintain a representative sample for the length of the sample interval. • No correlation between sample recovery and grade is observed.

Criteria	JORC Code explanation	Commentary
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.*	• No data acquisition has commenced at the current stage of the project in support of mining or metallurgical studies. • Diamond core samples are logged in detail, with descriptions and coded lithology for modelling purposes, with additional logging comprised of alteration, geotechnical, recovery, and structural logs including measurements based on core orientation marks generated from a Reflex ACTIII downhole survey tool. • Logging is recorded for all sampled and mapped intervals with qualitative logging completed for lithological composition, texture, colour, structures, veining, alteration, and quantitative logging for observed mineralogy, and estimated mineral content of quartz sulphide minerals. • All sampled intercepts in this report are logged for geology and alteration.
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.*	• Diamond core is split or cut in weathered profile depending on hardness and competency of the core and cut with a diamond saw in fresh rock. Weathered, faulted, and fractured diamond core, prior to cutting, are docked, and covered with packing tape to ensure a representative half sample is taken. • A cutline on core is systematically applied for cutting and portion of core collected for analysis is systematic within each hole. Diamond core sample recovery are reported as being completed in accordance with best practices for the time of acquisition and considered to be appropriate and of good quality. • Sample size studies have not been conducted but sample size and length used are typical of methods used for other porphyry deposits of similar mineralisation styles.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (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.*	• Reported intersections are logged by professional geologists in Ecuador and data validated by a senior geologist in Australia. • Twin holes have not been used in the reported exploration results. • Original laboratory data files in CSV and locked PDF formats are stored together with the merged data. • Field data is captured on both hard copy and digital formats, and transmitted to the database management team for validation and upload to a managed Access and MX deposits database controlled by the database manager. • No adjustment to data is made in the reported results

Criteria	JORC Code explanation	Commentary
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used* • *Quality and adequacy of topographic control.*	• Drill collars are surveyed by handheld GPS. Surveys are accurate to +/- 5m in horizontal precision. • All surveyed data is collected and stored in WGS84 datum Zone 17 south. • Topographic control is based on LiDAR survey completed in August, 2022. The acquired data was from Copper Ridge and Meseta Gold prospects, covering an area of 12.8km². The minimum information density was 5 points per square metre, the flight altitude path was at 300m, with an average velocity of 70 knots. The overlap per flight pass was 42%, considering 16 flight lines.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Early-stage exploration drilling has been conducted from available constructed drill platforms, with drilling designed to test targets defined by surface mapping, channel sampling and historical drilling. • Drilling to date does not have adequate spacing or distribution sufficient to establish continuity of mineralisation or underpin a mineral resource estimation, and further systematic exploration and drilling is required to facilitate a Mineral Resource Estimate. • Sample compositing has been applied in reported results, with average composite length being 2 metres.
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/ controls 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

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 license 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 143km^2. 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 license 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 drill 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 drill holes from 5 platforms testing the mineralisation at surface and ~1km east of outcropping surface mineralisation.

Criteria	JORC Code explanation	Commentary
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.
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.*	A summary of drillhole information has been included in the body of this release. No information has been excluded from 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.* *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. A lower cut-off of 0.1% copper equivalent was used to determine significant intercepts. 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. Metal equivalent reporting is applicable to this announcement and the assumptions and inputs are detailed here: Assumed commodity prices for the calculation of Copper Equivalent (Cu Eq) is Cu US$3.00/lb, Au US$1,700/oz, Mo US$14/lb and Ag US$20/oz Recoveries are assumed from similar deposits: Cu = 85%, Au = 65%, Ag = 65%, Mo = 80% Cu Eq (%) was calculated using the following formula: ((Cu% x Cu price 1% per tonne x Cu recovery) + (Au(g/t) x Au price per g/t x Au recovery) + (Mo ppm x Mo price per g/t x Mo recovery) + Ag ppm x Ag price per g/t x Ag recovery)) / (Cu price 1% per tonne x Cu recovery). **Cu Eq (%) = Cu (%) + (0.54 x Au (g/t)) + (0.00037 x Mo (ppm)) + (0.0063 x Ag (ppm))** TTM confirms that it is the Company’s opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold. Copper Equivalent values have been rounded to one decimal place to reflect lower confidence level in these calculated values Peer Deposits used for comparison are tabled below:

Company	Deposit	Deposit Type	Contained Metals	Recoveries %				Prices (USD)			
				Cu	Au	Mo	Ag	Au (oz)	Cu (lb)	Mo (lb)	Ag (oz)
Titan Minerals	**Copper Ridge**	**porphyry**	**Cu-Au-Mo-Ag**	**-**	**-**	**-**	**-**	**$ 1,700**	**$ 3.00**	**$ 14**	**$ 20**
Hot Chili	Cortadera	porphyry	Cu-Au-Mo-Ag	82	55	82	37	$ 1,700	$ 3.00	$ 14	$ 20
SolGold	Alpala	porphyry	Cu-Au	93	85			$ 1,400	$ 3.40		
Copper Mountain	New Ingerbelle	porphyry	Cu-Au-Ag	85	71		65	$ 1,599	$ 3.35		$ 21
Solaris	Warintza	porphyry	Cu-Mo-Au	80	65	-	70	$ 1,500	$ 3.00	$ 10	
Sunstone	Bramaderos	porphyry	Au-Cu	86	89	-	-	$ 1,770	$ 4.42		
Challenger	Colorado V	porphyry	Au-Cu-Ag-Mo	-	-	-	-	$ 1,780	$ 4.38	$ 18	$ 22
Peers Average				***85***	***73***	***82***	***57***	***$ 1,625***	***$ 3.59***	***$ 14***	***$ 21***

Criteria	JORC Code explanation	Commentary
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 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.
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.
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).* *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. Included in body of report as deemed appropriate by the competent person.