CULPEO MINERALS
ASX: CPO

ASX RELEASE

20 October 2021

GEOPHYSICAL SURVEY IDENTIFIES MULTIPLE HIGH PRIORITY DRILL TARGETS

Culpeo Minerals Limited (**ASX:CPO**, **Culpeo** or the **Company**) is pleased to announce that multiple new drill targets have been identified following the completion of a high resolution geophysical survey at the Company's Las Petacas Copper Project (**Las Petacas** or the **Project**) in northern Chile.

Highlights

- Extensional gradient array induced polarisation (**GAIP**) survey has identified multiple high priority targets at Las Petacas, refer Figure 1.
- Strong evidence of structural control on anomalies (analogous to world-class Candelaria Mine, 20km north).
- Follow up pole-dipole induced polarisation (**PDIP**) survey has now commenced.
- Maiden drilling program currently underway at previously defined target (Diego Prospect) which will now be expanded.
- Las Petacas hosts multiple high priority geophysical anomalies, coincident with surface copper mineralisation, defining multiple drill ready targets.

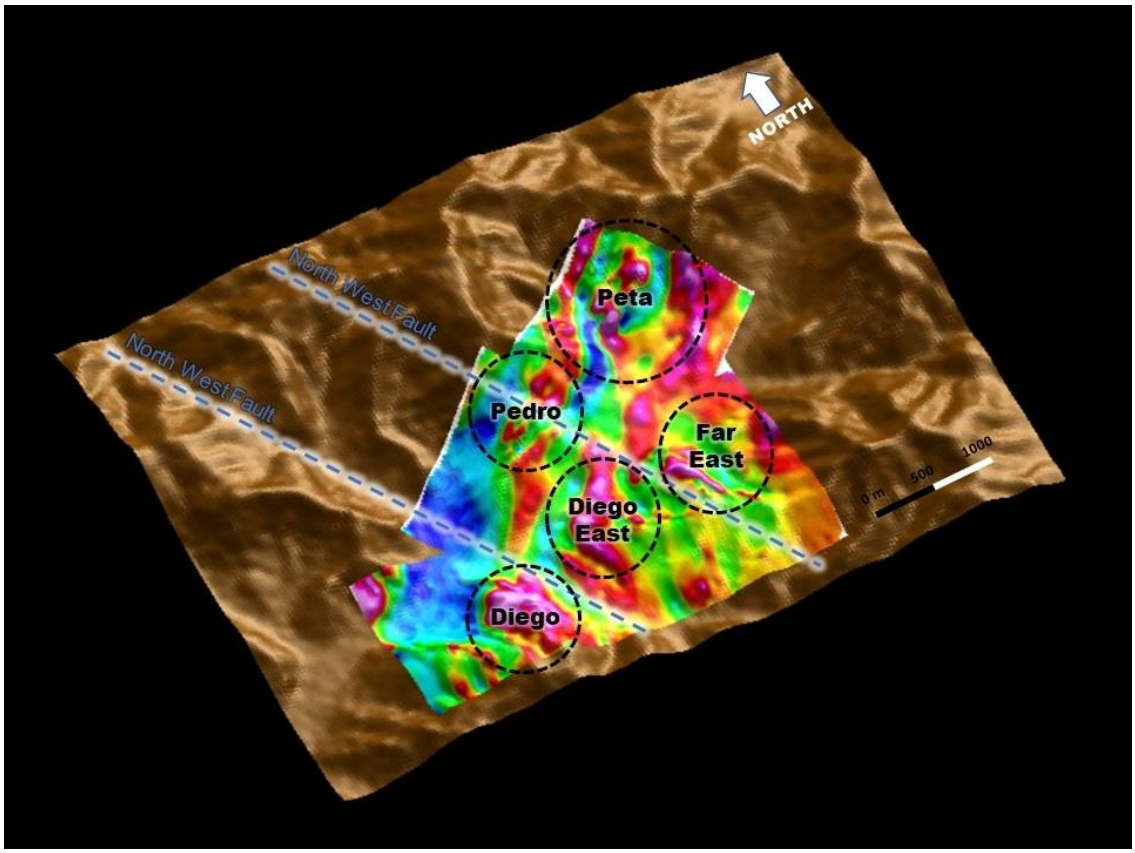

Figure 1: Multiple targets identified at Las Petacas from recent GAIP survey results.

Culpeo Minerals' Managing Director, Max Tuesley, commented:

"*We are delighted to report that the results of the recently completed GAIP geophysics survey have identified multiple additional large areas of high chargeability, further highlighting the exploration potential of the Las Petacas Project. The current drilling program will be expanded to include these new areas, with further details of the additional planned holes to be provided in due course.*"

Las Petacas Geophysical Survey

The Company engaged Quantec Geoscience to expand the coverage of GAIP and PDIP geophysical surveys at Las Petacas (Figure 2). The recent survey has identified multiple additional anomalous areas reflecting high chargeability. This potentially indicates the presence of copper sulphide mineralisation and the areas are considered to be high priority targets for further geophysical surveys and drilling. Geophysical surveys at the Diego Prospect identified areas of similar anomalism which are the current focus of the maiden diamond drilling program underway at Las Petacas.

Significantly, the new geophysical data supports the interpretation of north-west faults that transect the project area and appear to be intimately associated with the newly defined chargeability anomalies. Similar fault architecture and structural controls on mineralisation are present at the nearby, world-class Candelaria Mine and are known to be an important part of the localisation of economic ore zones in iron-oxide-copper-gold (**IOCG**) deposits.

The GAIP survey grid comprised 17 east-west oriented lines at 100m line spacing and 50m station spacing, with a total coverage of 28.5km.

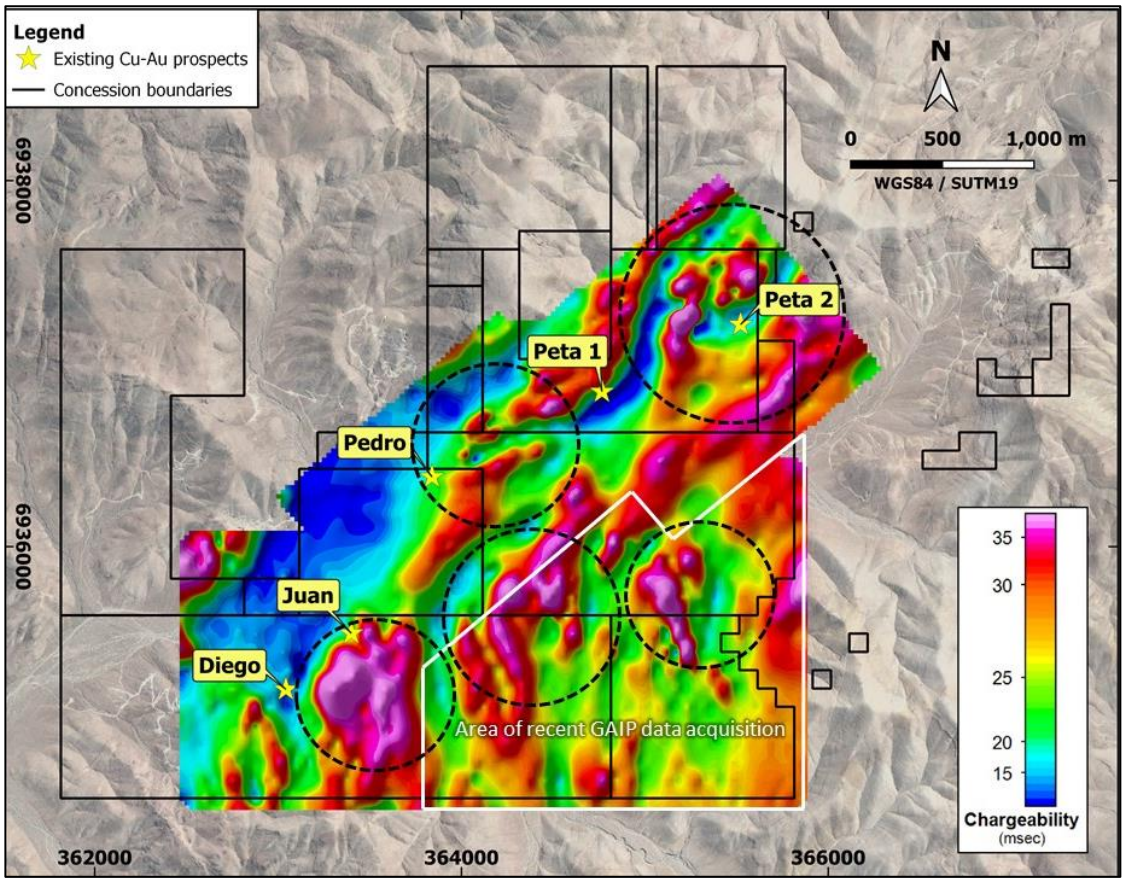

Figure 2: The results of the recent GAIP survey merged with the previous dataset

The GAIP anomalies identified likely relate to sources within 200m from surface. A program of 5 new PDIP survey lines is now underway (Figure 3), with approximately 9 line-km of coverage planned. These survey lines cover the higher amplitude GAIP chargeability and conductivity anomalies.

Two of these planned survey lines add to the existing Dipole-Dipole (**DDIP**)[1] coverage over the Diego Prospect that is currently being drill tested. The DDIP/PDIP coverage over this prospect will allow for the construction of 3D models of IP chargeability and resistivity/conductivity anomalism, which will be integrated with drilling data to improve geological knowledge and potentially identify new drill targets.

Induced polarisation geophysical techniques are useful for detecting sulphide minerals, including copper sulphides, and it is anticipated the survey will generate high quality geophysical mapping up to 450m below the surface.

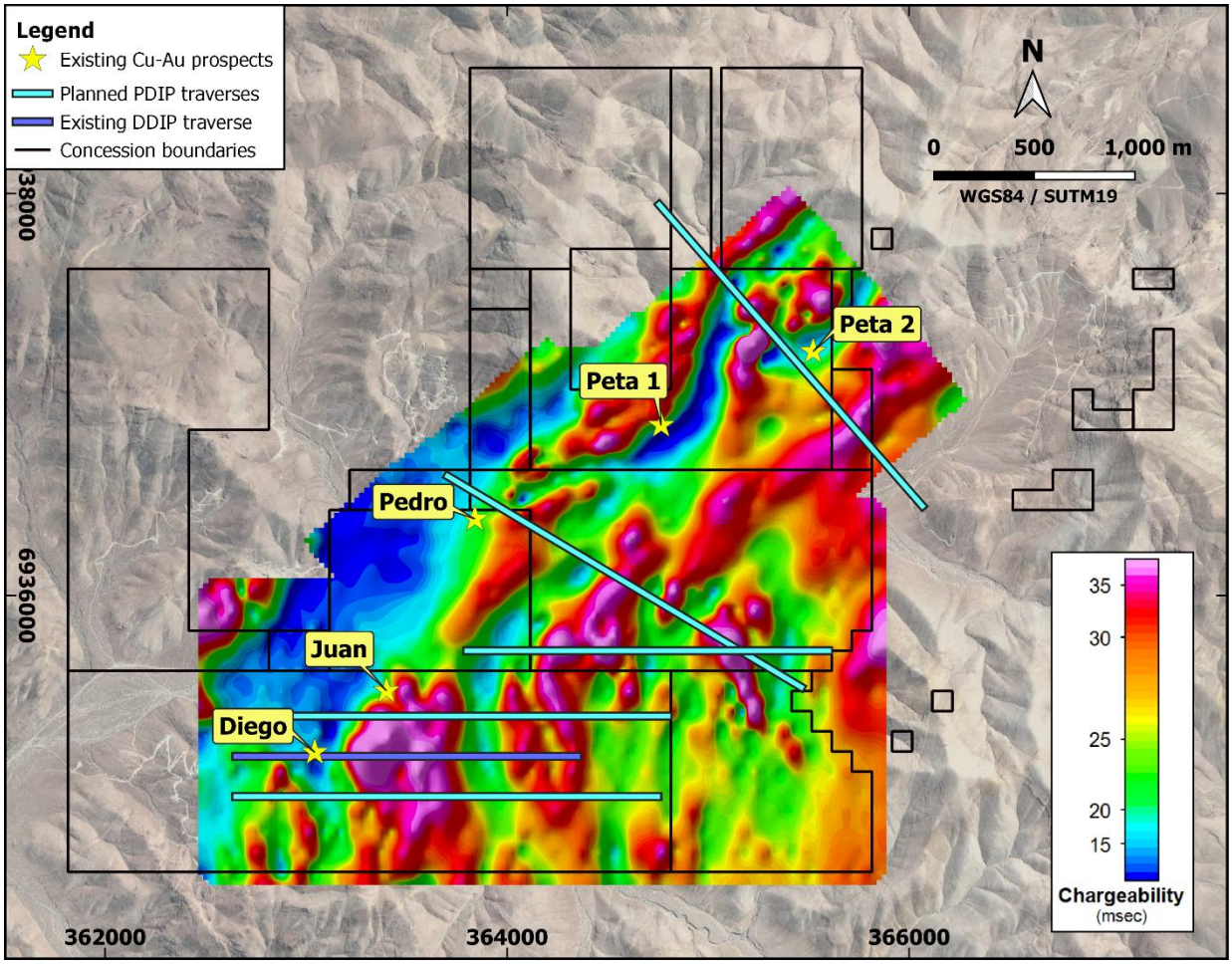

Figure 3: Location of planned PDIP traverses

[1]For further details on previous GAIP / DDIP survey, refer to Culpeo Minerals Limited Prospectus dated 23 June 2021.

Las Petacas Project

The Las Petacas Project is located in northern Chile (Figure 4), approximately 640km north of the capital, Santiago and 35km south of the regional capital of Copiapó in the Atacama Region (Region III).

The low-altitude Atacama Region is known to host significant mineral potential. One of the region's main copper deposits is Lundin Mining Corporation's world-class Candelaria mine, located 20km northeast of Las Petacas. Copper mineralisation at Las Petacas is interpreted to be associated with the same regional structure as Candelaria.

Las Petacas is considered prospective for mineralisation generally referred to as IOCG.

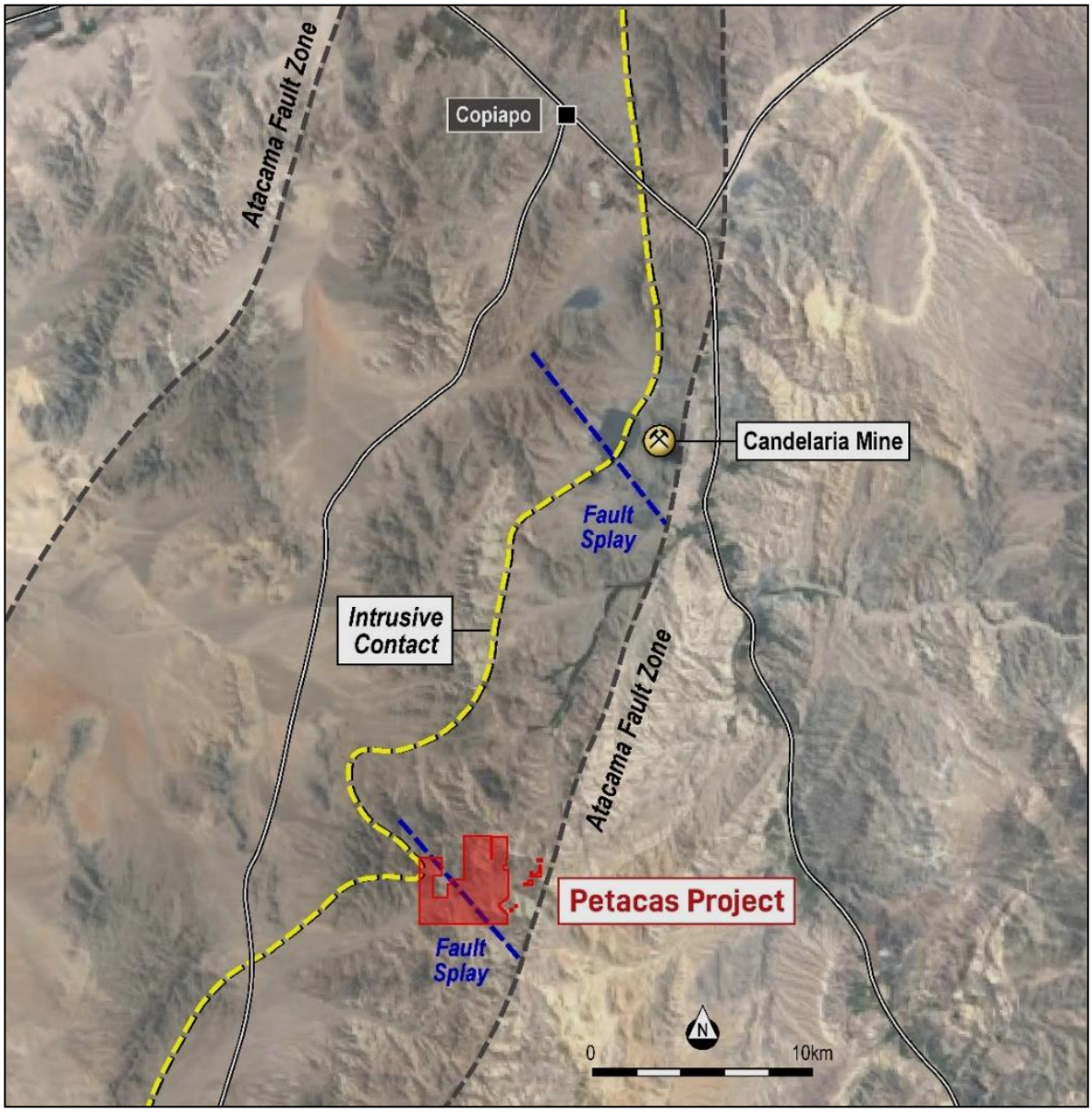

Figure 4: Location of the Las Petacas Project

This announcement has been authorised by the Board of Directors of Culpeo Minerals Limited.

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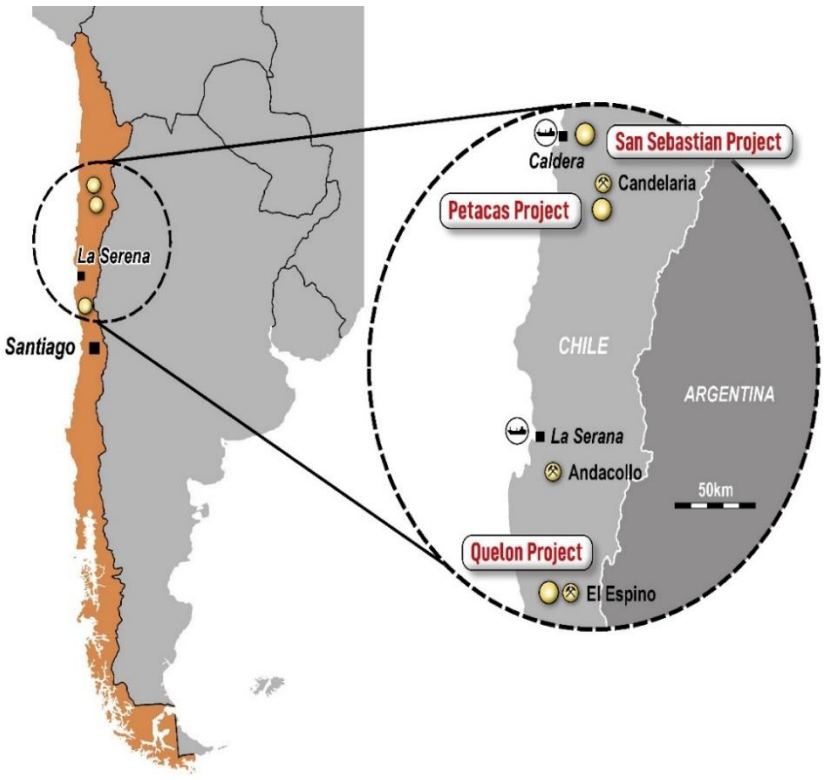
About Culpeo Minerals Limited

Culpeo Minerals is a copper exploration and development company whose assets are in Chile, the world's number one copper producer. The Company is exploring and developing high grade copper systems in the coastal Cordillera region of Chile.



The Company's principal project, Las Petacas Project, is located in the Atacama Fault System near the world-class Candelaria Mine. Historic Exploration has identified significant surface mineralisation with numerous outcrops of high-grade copper mineralisation which provide multiple compelling exploration targets.

Culpeo Minerals has a strong board and management team with significant Chilean country expertise and has an excellent in-country network. All these elements enable the company to gain access to quality assets in a non-competitive environment. We leverage the experience and relationships developed over 10 years in-country to deliver low cost and effective discovery and resource growth.

We aim to create value for our shareholders through exposure to the acquisition, discovery and development of mineral properties which feature high grade, near surface copper mineralisation.

Competent Persons' Statements

The information in this announcement that relates to historical Exploration Results is based on information compiled by Mr Jason Froud BSc (Hons), Grad Dip (Fin Mkts), MAIG) and was reviewed by Christine Standing BSc (Hons), MSc, MAusIMM, MAIG, who are both full time employees of Optiro Pty Ltd, acting as independent consultant to Culpeo Minerals Limited. Mr Froud and Ms Standing have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Froud and Ms Standing consent to the inclusion in this report of the matters based on this information in the form and context in which it appears.

The information relating to historical Exploration Results in this announcement is extracted from the Company's Prospectus dated 23 June 2021 which is available from the Company's website at www.culpeominerals.com.au or on the ASX website www.asx.com.au. The Company confirms that it is not aware of any new information or data that materially affects the Exploration Results information included in the Prospectus and confirms that the form and context in which the applicable Competent Persons' findings are presented have not been materially modified from the Prospectus.

The information in this report that relates to Geophysical Results is based on information compiled by Nigel Cantwell. Mr Cantwell is a Member of the Australian Institute of Geoscientists (AIG) and the Australian Society of Exploration Geophysics (ASEG). Mr Cantwell is a consultant to Culpeo Minerals Limited. Mr Cantwell has sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources & Ore Reserves. Mr Cantwell consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

Appendix A JORC Code Table 1 – Las Petacas Project

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.*	• Surface sampling was completed as channel sampling. No records of sampling techniques for drill core and RC chip sampling are available. • Drill core and RC chips where routinely assayed for Cu, Au, Ag, Fe and Mo. • A total 792 historic surface samples have been taken, these were routinely assayed for Cu, Au, Ag, Fe and Mo. • Drill samples were collected as either 1 m or 2 m composites. • Surface samples were collected as channel samples between 1 to 3 m wide. • 91 grab samples were taken in January 2021, these samples were analysed for Au, multi-element and ore grade Cu. • For the 2021 drilling program, no sampling has been completed yet as drilling is underway. Any visible mineralisation, alteration or other salient features were recorded in the mapping and drill logs. Industry-wide, acceptable, standard practices were adhered to.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation' drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	
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.).*	• 54 drillholes have been completed at the project for a total of 17,251 m. • 21 diamond drill holes (DDH) for 7,984 m • 31 reverse circulation (RC) Holes for 7,963 m • Two mixed RC/DD holes for 1,304 m.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	• Drill samples were taken before Culpeo's involvement, and no records are available detailing drill core recovery. • Core photos are available for a small portion of the drill core and these show good drill core recovery.
	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.	
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.*	• Partial records exist for the historic drill core logs, with 23 holes considered to have appropriate core logging coverage.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	
	The total length and percentage of the relevant intersections logged.	
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	• No records are available.
	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.	

Criteria	JORC Code explanation	Commentary
	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.	
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.*	• The sample preparation technique is unknown. • Analysis for total Cu, Mo, Pb, Zn and Ag was undertaken using a three acid digest and an AAS read. • Analysis for acid soluble Cu was undertaken using a 5% H2SO4 leach with an AAS finish. • Analysis for Au was undertaken using fire assay techniques with an AAS finish. • Internal laboratory standards, blanks and duplicates were undertaken for every sample batch. • The recent Culpeo sampling programme was undertaken with samples sent to ALS laboratories using preparation code PREP-31B, multi-element analysis ME-ME61 and analysis of Au by AU-AA24.
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	• Previous company staff reviewed the historic intersections. Due to the early nature of the project, Culpeo staff have not independently verified the sampling and assaying. • No twin holes have been completed due to the early stage of the project.
	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.	
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.*	• Location of drillhole collars and surface samples were recorded by handheld GPS. Accuracy is not known but is considered reasonable for early stage exploration.
	Specification of the grid system used.	
	Quality and adequacy of topographic control.	
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	• The historical drilling and surface sampling are widely-spaced and no systematic sampling/drilling grid has been implemented.
	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.	
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.*	• In general, the surface sampling has been undertaken perpendicular to the main northeast trend to the mineralisation. • Drilling orientations are not considered to be biased with several drilling orientations used.
	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.	
Sample security	*The measures taken to ensure sample security.*	• No records are available.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	• No records are available, but it is assumed no audits have been completed.

SECTION 2 REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The project area comprises twenty-two exploitation concessions, which cover a total area of approximately 14 km². Culpeo Minerals has 58% ownership of these concessions and has agreements in place to earn an additional 27%.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	• Historically four companies have undertaken exploration in the project area. These include: ○ Cyprus Mining (1992 to 1993) ○ Phelps Dodge (1992 to 1993) ○ Minera Aur Resources Chile (2002 to 2003) ○ Petacas SPA (2012 to 2014)
Geology	*Deposit type, geological setting and style of mineralisation.*	• The project is prospective for IOCG, vein hosted and skarn style Cu/Ag/Au/Mo mineralisation.
Drillhole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:* • *easting and northing of the drillhole collar* • *elevation or RL (elevation above sea level in metres) of the drillhole collar* • *dip and azimuth of the hole* • *down hole length and interception depth hole length*	• Refer to Culpeo Minerals Limited Prospectus dated 23 June 2021.
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 sample weighting or metal equivalent values have been used in reporting. Only raw assay results have been reported.
Relationship between mineralisation widths and intercept lengths	*If the geometry of the mineralisation with respect to the drillhole 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').*	• Only down hole lengths have been reported with respect to drilling intercepts, true width of mineralisation is unknown.
Diagrams	*Appropriate maps and sections (with scales) and tabulatios 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.*	• Diagrams are included in the main body of the report.
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.*	• Results have been reported for the main elements targeted (Cu, Au, Ag, Fe and Mo). All drillhole locations are reported for context. • Recent surface grab samples have had a suite of multi-element assay results reported.
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.*	• A gradient array IP (GAIP) and dipole-dipole IP (DDIP) survey was undertaken over two field campaigns starting on 01/12/2020 and ending on 01/02/2021. The GAIP surveys consisted of three survey blocks, which were each about 1.4 km long by 1.35 km wide. • An extensional GAIP survey was undertaken in September / October 2021 covering the southeast portion of the

Criteria	JORC Code explanation	Commentary
		concessions • GAIP data were acquired with 50 m receiver dipole separation and 50 m station moves along 100 m spaced survey lines. The GAIP transmitter bi-pole and receiver survey lines were oriented E-W for the southernmost survey block located over the Juan and Diego prospects, and NW-SE for the other two survey blocks located over the Pedro, Peta-1 and Peta-2 prospects. • The extension GAIP survey was located in the south eastern section of the concessions. • The GAIP surveys were oriented so that survey lines crossed perpendicular over the existing Cu mineralised trends. • A single DDIP survey line was carried out over a coincident GAIP chargeability anomaly and coincident anomaly near the Diego prospect. The survey line was 1.9 km long and data were acquired with a mix of 100 m and 300 m transmitter dipole spacing, and 100 m receiver dipole separation, to a maximum of 16 n-levels (proxy for depth). • Field mapping was carried over the area of the phase one GAIP surveys, which were termed “West”, “Central” and “East”. • The West area is dominated by a N-S structural system, where silicified veins contain abundant barite and contain high Ag values. • Silicified structures and quartz porphyry are generally aligned NE-SW in the Central area, except for the more complex zone in the southern part of this area, which is also an area of interest in the GAIP survey results. • In the East area, silicified structures and quartz porphyry occur in a variety of orientations and there is increased biotite mineralization noted in the porphyry dykes, as well as stockwork alteration.
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).*	• A comprehensive drilling programme is now underway at the project site. • Further Pole-Dipole IP surveys are planned.