

Geophysics Outlines Major Intrusive Target at Picha Project, Peru

Key Points

- **Results show intrusive-style architecture from the mapped Anta Q'ilqa and Ichucollo alteration zones at surface to a depth of >5.0km below the Anta Q'ilqa Target.**
- **The high resistivity zone associated with the interpreted intrusive body identified by the MT survey correlates well with the Ichucollo Target, where surface channel sampling results include¹:**
 - 13.1m @ 1.38% Cu & 10.21g/t Ag
 - 30.0m @ 0.79% Cu & 7.56g/t Ag
 - 24.0m @ 1.08% Cu & 3.99g/t Ag
 - 16.0m @ 0.60% Cu & 9.1g/t Ag
- **MT resistivity high zones coincident with magnetic low features observed across the Anta Q'ilqa and Ichucollo Targets in a recent property-wide UAV Magnetism survey support the working intrusive model for the Picha Project.**

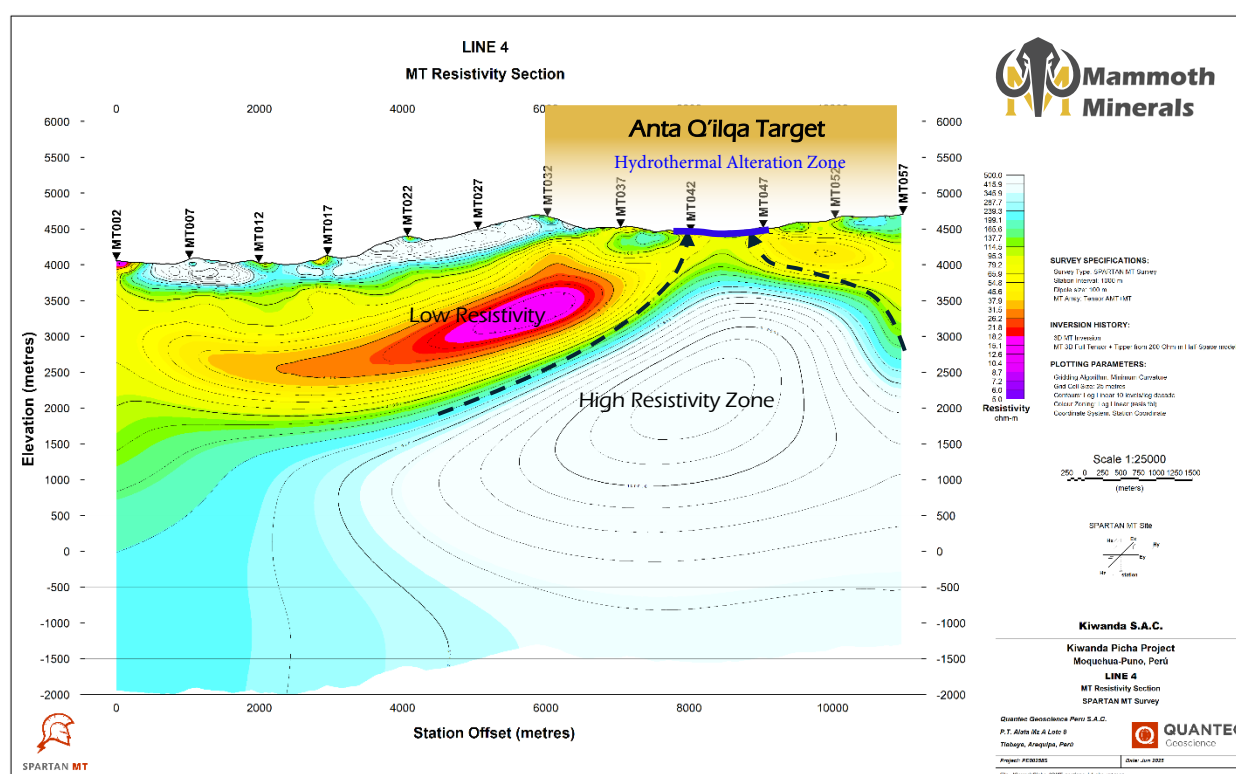


Figure 1: Section highlighting high resistivity vertical structure below the Anta Q'ilqa Target.

¹ Refer to the Company's ASX announcement "Drill Targets Identified at Peru Base Metals Projects" dated 10/07/2023



Mammoth Minerals Limited (**Mammoth or the Company**) (ASX: M79) is pleased to report results from the Full tensor Magnetotellurics (MT) Survey completed recently across the Anta Q'ilqa and Ichucollo targets at the Picha Copper Project in Peru. The MT survey, which forms part of the works completed under the BHP Xplor program, was designed to refine the deeper intrusive architecture and scale of the intrusive controlling the mineralisation and alteration observed in surface mapping and sampling at Picha.

The survey has highlighted an extensive intrusive zone, interpreted as a high resistivity zone with a strong correlation between the demagnetised zones highlighted in the recently completed, property-wide UAV magnetics survey. This information is further supported by the mapped and sampled alteration and mineralised zones centred around the Anta Q'ilqa and Ichucollo Targets.

Along with this, there is a clear link for a relationship to the Ichucollo Target, highlighting a single intrusive system as a potential source for the abundant copper mineralisation that has been observed at the Ichucollo Target and across the entire project. Previously reported channel sample results from the Ichucollo Target include¹:

- 13.1m @ 1.38% Cu & 10.21 g/t Ag
- 24.0m @ 1.08% Cu & 3.99g/t Ag
- 30.0m @ 0.79% Cu & 7.56g/t Ag
- 16.0m @ 0.60% Cu & 9.1g/t Ag

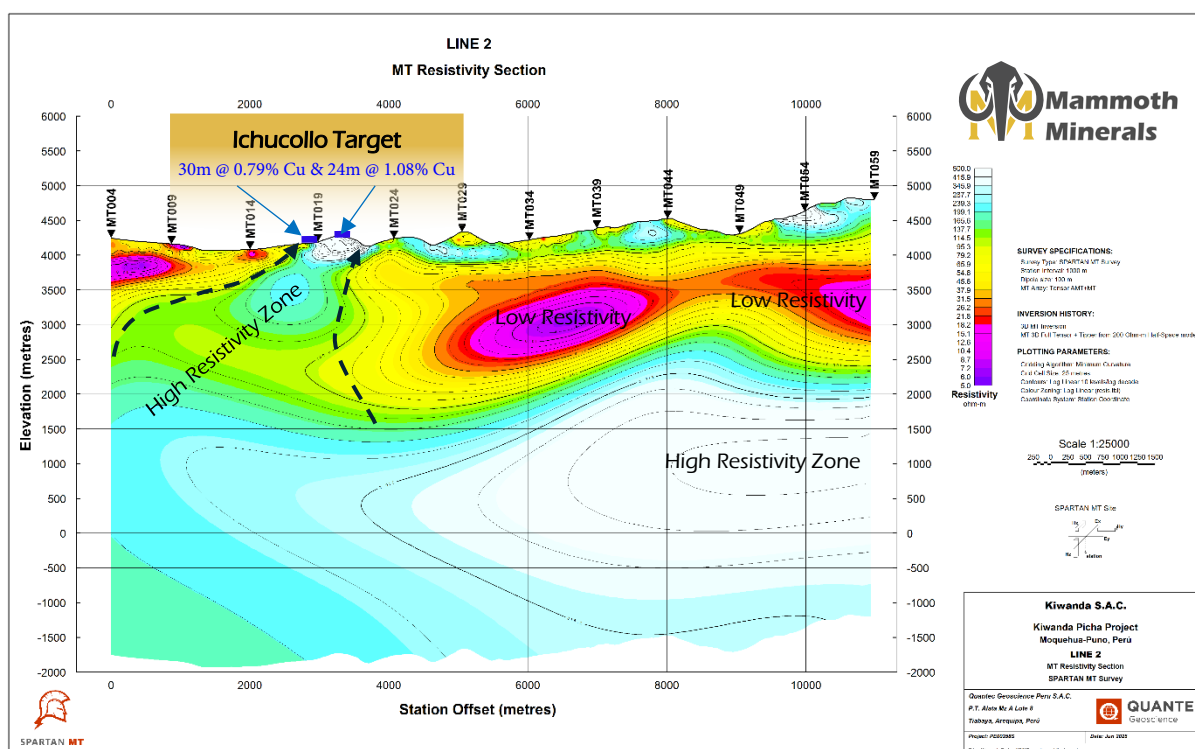


Figure 2: Section (L2) highlighting high resistivity spur structure below the Ichucollo target

Mammoth Minerals Managing Director, Glenn Poole, commented:

"The results of this survey are very encouraging and align well with the working geological model we have for the Picha area. The ability to leverage off the support and funding provided by the BHP Xplor program to 'see' to a depth of over 5km into the underlying geological architecture has been transformational for the project and will provide critical information to help us develop a refined targeting program moving forward."



“This survey, supported by the property-wide UAV magnetics, has helped us improve our understanding of the mineral systems at work across the Picha Project area. We have shown through the previous mapping, sampling and drilling that there is extensive copper in the system. Now, the results of this MT survey represent a major step forward in terms of understanding what is driving those mineral-enriched fluid systems and driving the copper we are seeing at surface.”

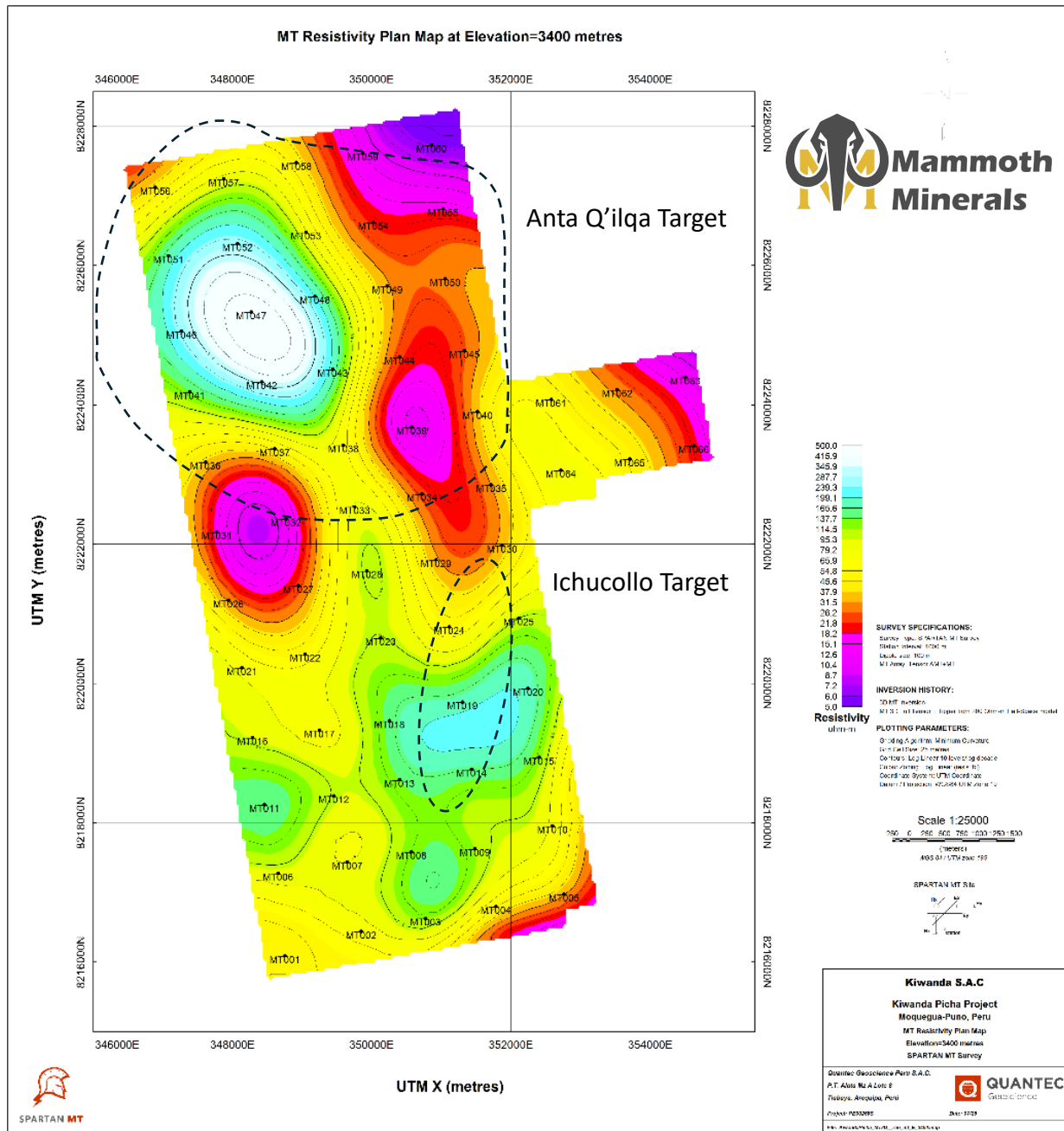


Figure 3: MT survey results showing resistivity highs across the Anta Q'ilqa and Ichucollo targets

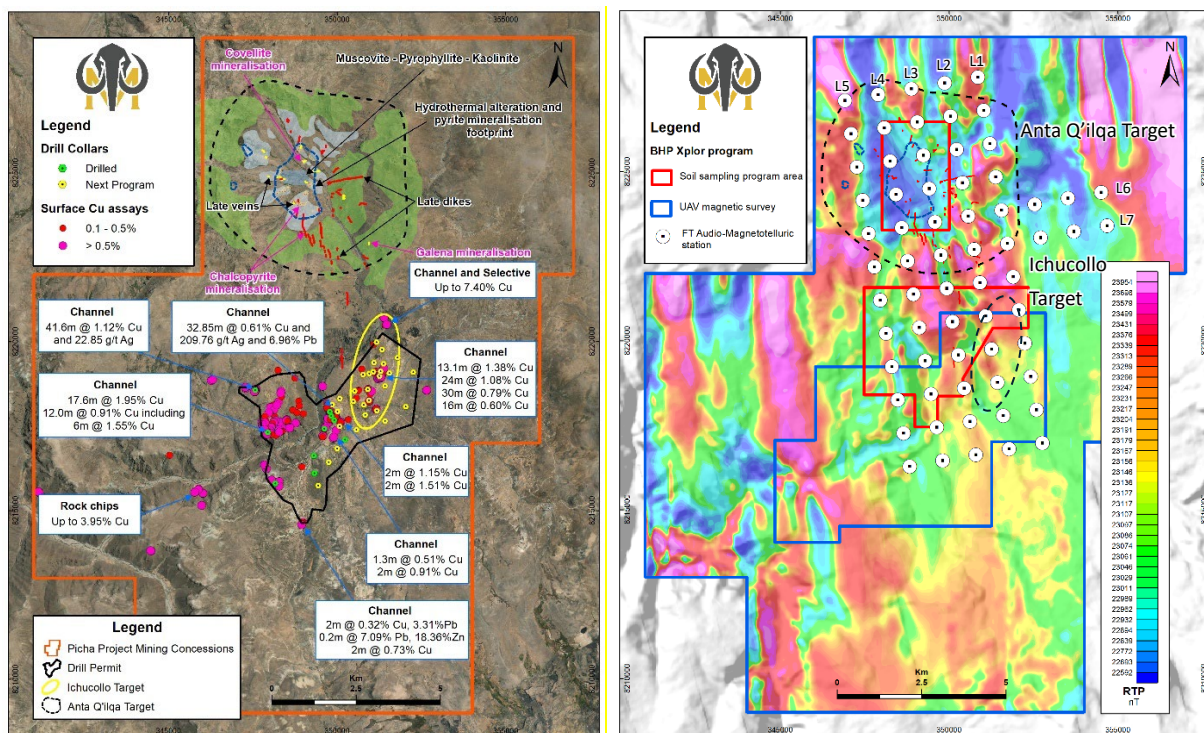


Figure 4 (Left): Mapping, Rock chips and channel samples across Picha Project

Figure 5 (Right): UAV magnetics showing Low magnetics across target areas and lines/stations of MT survey

About the Magnetotelluric Surveys

The Magnetotelluric (MT) method is a natural source EM (Electromagnetic) method that measures the variation of both the electric (E) and magnetic (H) field on the surface of the earth to determine the distribution at depth of the resistivity of the underlying rocks.

The measured MT impedance Z , defined by the ratio between the E and H fields, is a tensor of complex numbers. This tensor is represented by an apparent resistivity (a parameter proportional to the modulus of Z) and a phase (argument of Z). The variation of those parameters with frequency relates the variations of the resistivity with depth, the high frequencies sampling the sub-surface and the low frequencies the deeper part of the earth.

However, the apparent resistivity and the phase have an opposite behaviour. An increase of the phase indicates a more conductive zone than the host rocks and is associated with a decrease in apparent resistivity. The objective of the inversion of MT data is to compute a distribution of the resistivity of the surface that explains the variations of the MT parameters, i.e., the response of the model that fits the observed data. However, the solution is not unique, and different inversions must be performed (different programs, different conditions) to evaluate and compare solutions for artefacts versus a target anomaly.

The depth of investigation is determined primarily by the frequency content of the measurement. Depth estimates from any individual sounding may easily exceed 20km. However, the data can only be confidently interpreted when the aperture of the array is comparable to the depth of investigation.

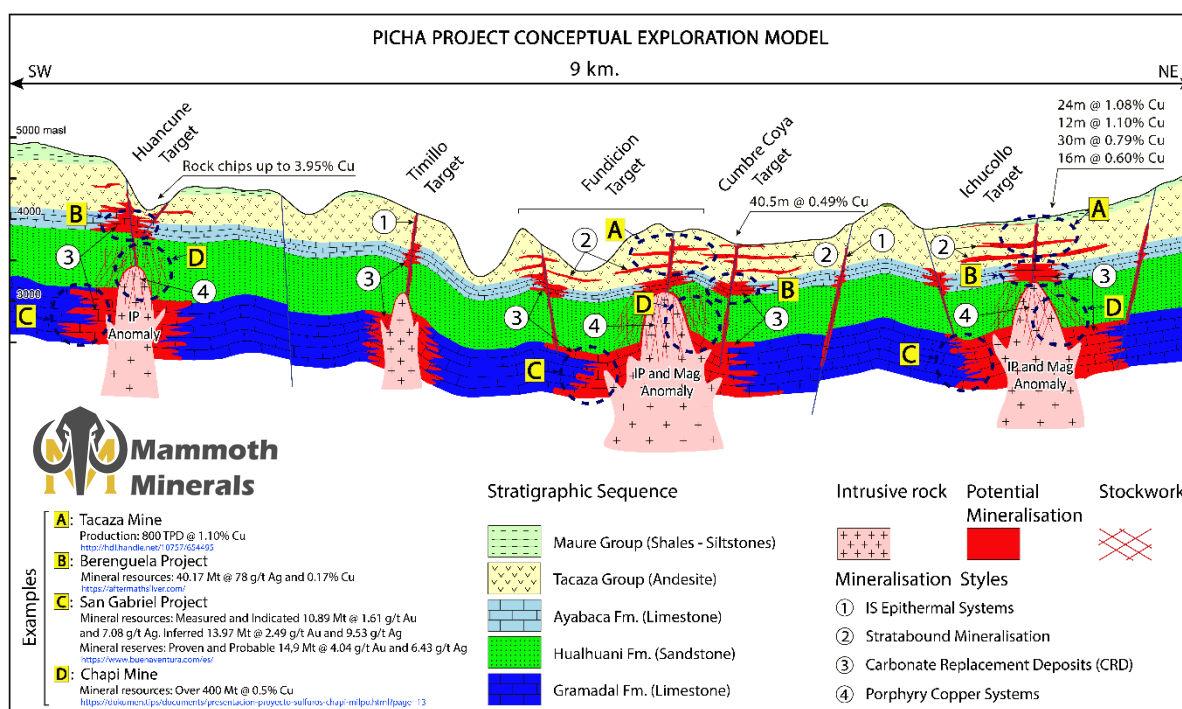


Figure 6: Conceptual cross-section of the Picha Project showing potential mineralisation styles and host stratigraphy.

Charaque Gold-Silver Project

The Charaque Project, which is located 30km north-east of the Picha Copper Project, comprises eight claims covering an area of around 6,000 hectares (60km²) and hosts the same stratigraphic sequence seen at the Picha Project.

Following the termination of the earn-in agreement with Barrick in November last year, the Company has been compiling and verifying the data collected during the option period. Mammoth has received the results of a comprehensive review of work completed across the project area along with recommendations for work programs.

The Charaque area has a history of artisanal mining that focused on silver-lead rich polymetallic veins².

Significant historical results include:

- The **Huallatani Target**, with a channel sample (0.3m x 0.2m) of 538g/t Ag and 19.5% Pb and dump samples from historical artisanal mining of up to 43.2g/t Ag and 7.74% Pb; and
- The **Arco Target**, with channel samples (2.0m x 0.2m) up to 929g/t Ag and another of up to 0.98% Cu, with five channel samples returning assays greater than 60g/t Ag

The Company has received third-party interest in the project regarding a potential corporate transaction which is being pursued, consistent with the Company's strategic focus on continuing to optimise its portfolio and crystallise value from non-core assets.

Shareholders will be updated if and when binding commercial terms are reached.

² Significant Copper & Silver sampling results in Peru 2/6/2022 (ASX:THB)



This announcement has been authorised for release to the ASX by the Company's Board of Directors.

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About Mammoth Minerals

Mammoth Minerals (ASX: M79) is an Australian-based resource development and exploration company with a portfolio of high-potential gold and copper assets across the Americas. Mammoth recently acquired option to earn 80% of the high-grade Excelsior Gold Project, located in the world-class Walker Lane trend, Nevada, USA and the 100% owned Bella Gold Project, located near the Homestake Gold Mine in South Dakota, USA, where its maiden exploration programs are underway.

Mammoth is also advancing the district-scale Skyline VMS Copper-Zinc-Silver Project, located in Newfoundland, Canada and exploring the Picha Project in Peru for potential Tier-1 copper-gold discoveries.

The Skyline Project (option to earn 80%) encompasses a historic mine and includes a 110km² land package with 25km strike of highly prospective VMS lithology and contact zones. The Peru package includes over 300km² of greenfield high-grade copper potential through its 100% holding in the Picha Copper-Silver Project (244 km²) and Charaque Copper Project (60 km²) in Southern Peru. Picha is a part of the BHP Xplor 2025 accelerator program.

**Exploration Results**

The information in this announcement is based on, and fairly represents information compiled by Mr Glenn Poole, a Competent Person, who is the Managing Director and CEO of Mammoth Minerals Limited and a Member of the Australasian Institute of Mining and Metallurgy and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he has undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Poole consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

Forward-looking statements

This announcement may contain certain “forward-looking statements”. Forward looking statements can generally be identified by the use of forward-looking words such as, “expect”, “should”, “could”, “may”, “predict”, “plan”, “will”, “believe”, “forecast”, “estimate”, “target” and other similar expressions. Indications of, and guidance on, future earnings and financial position and performance are also forward-looking statements. Forward-looking statements, opinions and estimates provided in this presentation are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward-looking statements including projections, guidance on future earnings and estimates are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance.

Previously Reported Information

The information in this report that references previously reported exploration results is extracted from the Company’s ASX market announcements released on the date noted in the body of the text where that reference appears. The previous market announcements are available to view on the Company’s website 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 information included in the original market announcements. The Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcement.



JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	- Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as 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.	- Magnetometer flown in N-S (0/180) orientation (E-W Tielines) - The magnetic survey 100m Line Spacing with 500m tielines - A GSM-19TW Proton Magnetometer as a base station and two high-sensitivity GSM 19W Overhauser magnetometers were used for acquisition. 200Hz Sensor - Flight Height Range 35-45m, 4 GNSS Control points used - Flight Speed 8m/s - 25 readings per meter - Sensitivity – 0.022nT @ 1 Hz - Resolution – 0.01nT Absolute accuracy +/- 0.01 nT - Dynamic Range – 20,000 to 120,000 nT - Magnetotellurics – Total Sites 66 - A uniform mesh with 250 m x 250 m horizontal direction cell size was used in the resistivity model (aprox. - site spacing is 1 km). The vertical mesh was designed to cover the topography variation with 25m cells, - then the next 5km with cells' thickness increasing progressively from 25m to 100m - Grid Azimuth: 350 deg (this is the X direction of the MT data) - Mesh cell size (without padding) Main Grid X: 31 x 250m (total 7750m). Main Grid Y: 68 x 250m (total 12000m). Main Grid Z: 98 cells covering the top 5000m, with 25m from top to 3950 m a.s.l, then inc. 25m to 100m down to -1050 m a.s.l (x 1.04). Below that, thickness increases progressively x 1.06 down to - 40.000 m a.s.l - Padding coverage Over 50km in each X, Y, and Z direction. - Data used Complex Impedances [Z] and Tipper [T] at maximum 24 frequencies from 10 kHz to 0.01Hz, 4 frequencies per decade; data set X to 0deg.
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	No Drilling Completed – Not Applicable



Criteria	JORC Code explanation	Commentary
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.	No Drilling Completed – Not Applicable
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 Drilling Completed – Not Applicable
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 Drilling Completed – Not Applicable
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.	No Drilling Completed – Not Sample analysis completed
Verification of sampling and assaying	- The verification of significant intersections by either independent or alternative company personnel. - The use of twinned holes.	No Drilling Completed – Not Applicable



Criteria	JORC Code explanation	Commentary
	- 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. - Specification of the grid system used. - Quality and adequacy of topographic control.	- The coordinates of the reported survey were based on WGS84 UTM Zone 19. - Location of aircraft and data points located using 4 GNSS survey points across the survey area. - Drone location and precision verified with differential GPS built in.
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.	- The lines will be re-operated if the flight lines deviate more than 10 m in 10% of the lines raised. And the lines will be re-inspected if the Drape exceeds a range of 30 m to 60 m for 10% of the inspection line. - When the unit is in flight it is affected by physical factors, such as - gusts of wind that could bring one flight line closer to another, so that - will not be flown in wind greater than 12 m/s and with KP indices greater than 3 (which affects the satellite signal). - Magnetometer flown at 35-45m height at 100mn line space, 500m perpendicular tie lines flown, - Magnetotelluric Data - A uniform mesh with 250 m x 250 m horizontal direction cell size was used in the resistivity model (aprox. site spacing is 1 km). The vertical mesh was designed to cover the topography variation with 25m cells, then the next 5km with cells' thickness increasing progressively from 25m to 100m
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.	- Stratigraphy is interpreted at predominantly flat in the area Orientation of survey nominal. - Sampling results and data referenced to previous announcements contain complete records and information regarding sampling, distribution and analysis
Sample security	The measures taken to ensure sample security.	Data is confidential to Deep sounding (Magnetics) and Quantec (MT) under terms of contract.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Data verified and reviewed by independent consultants prior to processing and interpretation.



Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

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 Picha Project comprises 30 Mining Concessions all of which are of which are 100% owned by Kiwanda S.A.C, a Peruvian subsidiary of Mammoth Minerals (ASX:M79) The Picha project is located 127km SW of the City of Juliaca, in southern Peru, and near the village of Jesus Maria in the San Antonio de Esquilache district, province of Sanchez Cerro and the Moquegua department. - The Charaque project comprises 8 Mining Concessions which are 100% owned by Kiwanda S.A.C, a Peruvian subsidiary of Mammoth Minerals (ASX:M79) The Charaque project is located 70 km SW of the City of Juliaca, in southern Peru, and near the village of Arca Charaque in the Puno district, province of Puno and the Puno department. - All mining concessions are currently granted. All mining concessions are in good standing with no known impediments. Lara Exploration holds a 1.5% Royalty over TA-1, TA-2, PICHA 2, PICHA 3, PICHA 7 and LEON 3 claims, Thundebird Resources holds a 1% Royalty across the Picha and Charaque Projects
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	At Picha Project exploration was previously completed on the Picha project area by several companies including Minera Teck Peru S.A., Minera del Suroeste S.A.C, Maxy Gold Corp and most recently Lara Exploration Ltd. These companies completed surface geochemical sampling and geophysics, including an Induced Polarization survey. Lara Exploration and Maxy Gold Corp proposed drilling programs to test the five target areas, but the drilling was never implemented.
Geology	Deposit type, geological setting and style of mineralisation.	At Picha mineralisation is considered similar to other copper-silver intrusion related deposits in Peru and Chile, hosted mainly in andesitic volcanics. Further exploration work is required to test this model. The project area is covered mostly by andesite lava flows, basaltic andesites, tuffs and agglomerates of the Tacaza Group. These rocks are unconformably overlain by lacustrine sediments made up of sandstones, limolites, shales, limestones and some intercalations of andesites, rhyolites and reworked tuffs of the Maure Group of Miocene age. While most of the copper mineralisation is hosted by the Tacaza Group, some copper mineralisation also reaches the level of the Maure Group rocks. The area is prospective for epithermal, stratabound, carbonate replacement (CRD) and porphyry



Criteria	JORC Code explanation	Commentary
		related styles of copper mineralization through work carried out by Valor in 2022.
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.	No Drill hole information included in this report.
Data aggregation methods	- In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg 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 Drill hole information included in this report. No metal equivalent values reported herein.
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 (eg 'down hole length, true width not known').	No Drill hole information included in this report.
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.	Maps and sections are included in the body of the announcement or referenced to original announcement



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 results have been reported, including where no significant results.
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.	- All exploration data relevant to this release has been reported. - Appendix 1 contains data reported in the Mapping observations contained in images. Cautionary statement included in opening page of announcement.
Further work	- The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). - Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Further work on the Picha Project will comprise the completion mapping, sampling and rock property analysis. Extensive Geophysics surveys and mapping/sampling programs underway to further investigate targets.