

MULTIPLE DISCOVERY AND EXTENSIONAL TARGETS HIGHLIGHTED BY EM SURVEYS

HIGHLIGHTS

- Fixed Loop Electromagnetic (**FLEM**) surveys across the Palma Project at C3, Macaw and Mafico are now complete and have **resulted in multiple new potentially mineralised VMS conductors being identified**
- **C3 Extensions** – Large, highly conductive plate, closely matching with known VMS mineralisation
 - EM plates highlighted **significant potential extensions at depth and along strike**
 - Highlighted possible extensions to northernmost hole PD3-018 that reported **15.0m @ 2.89% Cu, 4.41% Zn, 0.33% Pb, 29.8g/t Ag & 0.09g/t Au from 71m**
 - **Offers further scale potential to C3 JORC Resource** of 2.8Mt @ 1.1% Cu, 4.3% Zn, 0.2% Pb & 23g/t Ag
- **Mafico Prospect** – **Newly identified conductive target**, initial interpretations show a large EM plate, dipping ~60 degrees to the west and splits into **two high conductance targets at the northern end**
- **Macaw Prospect** – low tenure anomaly associated with VTEM and Induced Polarisation (IP) surveys
 - The interpreted plate is **similar in orientation and intensity to the known C1 VMS mineralisation**
- **C3 West** – extensive anomaly revealed, the target of FLEM survey currently underway
- **Next steps** – Newly identified **targets will be drill tested** as part of the ongoing phase 1 and phase 2 diamond drill campaigns at Palma; while **FLEM surveys at untested areas will continue- aiming to determine the true scale of the Palma Project**

Alvo Minerals Limited (ASX: ALV) (Alvo or the Company), high-grade copper-zinc explorer, is pleased to announce the results of several FLEM surveys that have highlighted multiple discovery and extensional targets at the Palma VMS Project in Brazil.

The FLEM surveys covered the C3 advanced prospect and nearby VTEM conductors now named Mafico and C3 West. A FLEM survey was also completed at the northern extension of the C1 deposit, now named Macaw. Importantly, high and lower tenor conductors have been highlighted, associated with known high-grade VMS mineralisation. In addition, multiple new conductors, which could be significant vectors toward new discoveries, have been revealed.

Alvo will systematically test both the discovery and extensional targets highlighted by the recent surveys as part of its ongoing phase 1 and phase 2 diamond drill program at the C1 and C3 prospects.



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PROJECT

Palma Project – VMS in Brazil

Shares on Issue	72,830,314
Cash	\$7.2M (at 31 Mar 2022)
ASX Code	ALV

Alvo Minerals' Managing Director, Rob Smakman, commented:

"We are incredibly pleased with the efficiency and quality of data delivered by the recent FLEM survey results that have been collected and processed by our team daily.

"The EM plates at the C3 deposit in particular, represent exciting possible extensions to the high-grade VMS mineralisation – both along strike and down-dip. We intend to aggressively test these extensional targets following the interpretation of downhole EM at C3, anticipated to commence shortly.

"Of course, the key to our exploration model is to make discoveries and we are excited to be refining multiple new targets at Macaw, Mafico, and C3 West; all of which show strong potential to be new discoveries to be tested in the coming drill campaign.

"Since listing in October last year, Alvo has been aggressively carrying out its stated three-prong exploration strategy – upgrade, expand, discover. With the consistency of existing mineralisation confirmed through phase 1 drilling at C3 and C1, we are eagerly anticipating the next phase of exploration aimed at significantly expanding existing high-grade mineralisation and making new discoveries. This is undoubtedly the most exciting part of the exploration campaign!"

C3, Mafico and C3 West

Alvo's in-house survey team commenced at C3 to look for extensions of the known high-grade VMS mineralisation. The FLEM survey quickly revealed a strong signature associated with the mineralisation at C3, as well as a strong and extensive conductor at Mafico (to the east of C3) and a subtle signature at C3 West (see Figure 1).

The interpreted plate location at C3 closely matches the known mineralisation (see Figures 1 & 2), with the plate extending significantly at depth (depth extent of ~ 400m- from the top of the plate at ~ 60m below surface) and extends ~ 1km NE-SW. This plate will be tested in phase 2 drilling, set to begin once the additional information from loop 2 FLEM and downhole electromagnetic (DHEM) is complete. As such, the current interpretation and inversion of the data (at C3 and Mafico) is preliminary only and will be improved prior to drilling.

The interpreted plate at C3 extends for at least 200m to the NE and SW beyond known mineralisation and up to 200m below the known mineralisation. The apparent thickness/conductance is very high at ~ 1,000 siemens¹.

Preliminary interpretation of the plate at Mafico is of a large plate, striking north-south and dipping at about 60 degrees to the west- different to the orientation to C3. The thickness/conductance is high at ~ 300 siemens and appears to converge with C3 towards the north where it splits into two shallower high conductance targets. Inversion and interpretation on the northern plates at Mafico is ongoing.

¹The thickness/conductance is a measurement of the conductivity and thickness and is affected by the type of conductive minerals. The siemens value is therefore not related to the grade of specific elements or minerals as many minerals are conductive and not necessarily with valuable metals.



The subtle anomaly at C3 West is being tested by a second, more westerly loop (loop 2), which will test the theory that the distance to the C3 West anomaly is affected by the long distance from loop 1.

The loop 2 FLEM survey is ongoing at C3 West and early indications suggest C3 West as a major conductor of similar tenor to the main C3 Conductor.

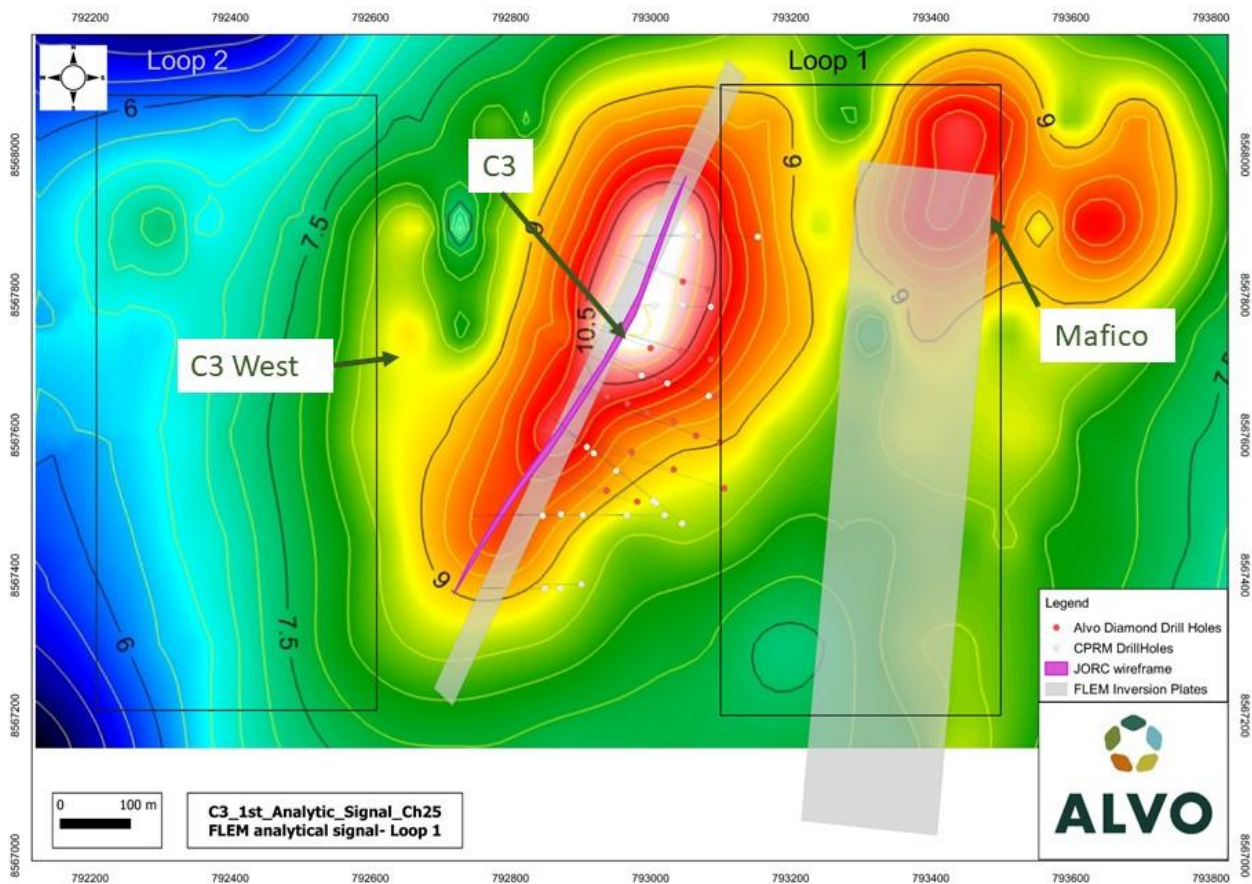


Figure 1. FLEM plan at C3 with interpreted conductive plates and drill traces. Base image is the Channel 25 analytical signal from Loop 1 only. C3 West loop (loop 2) is currently underway to better define the anomaly at C3 West (and further refine C3).

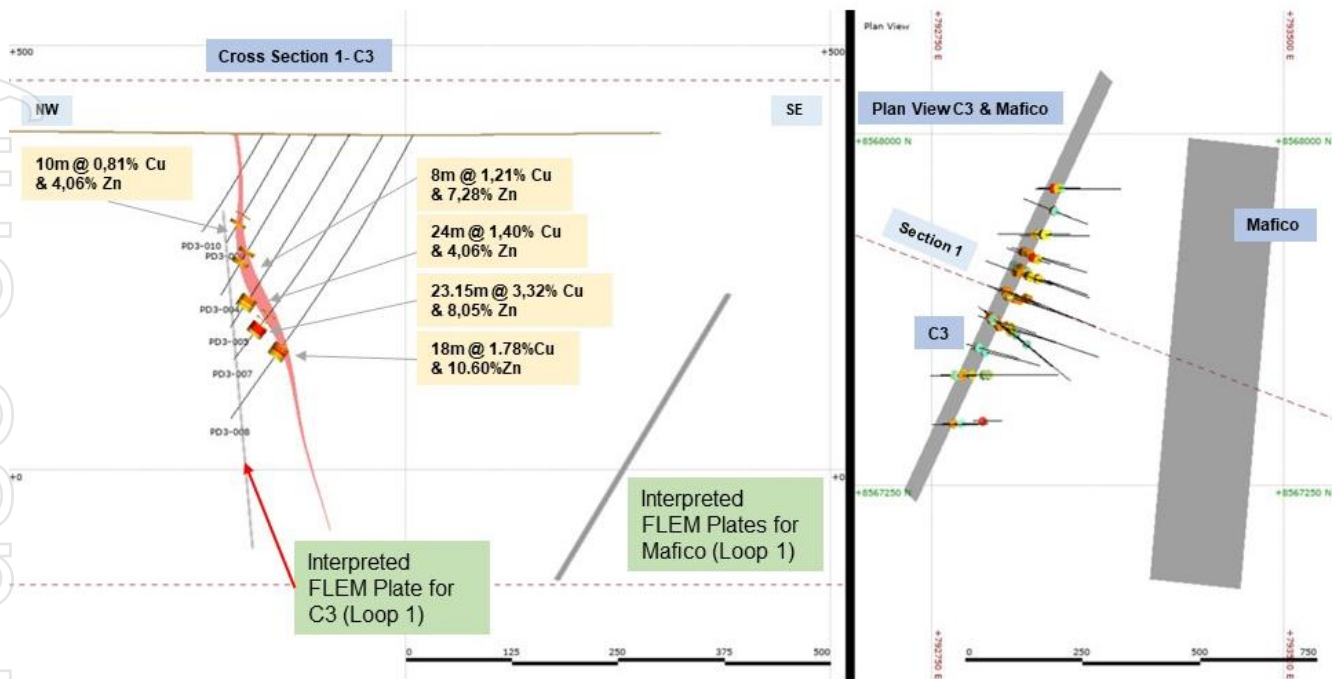


Figure 2. Cross-section and drill plan at C3 and Mafico, showing the interpreted EM plate locations and Alvo drilling.

Macaw Prospect

The FLEM survey at Macaw (formally C1 North) has shown a lower conductance anomaly closely associated with the historic VTEM survey and the more recent IP survey completed in conjunction with the University of Brasilia (see Figure 3).

Inversion of this survey suggests a plate with a conductance of 30-50 siemens with an easterly dip, similar to the conductance and dip orientation at C1. The plate has an apparent extension of ~ 500m (north-south) and is open to the south (although reducing in intensity). The top of the plate is expected at ~ 95m below the surface.

Alvo plans to test the Macaw Prospect as part of the phase 1 diamond drill program at the C1 deposit.

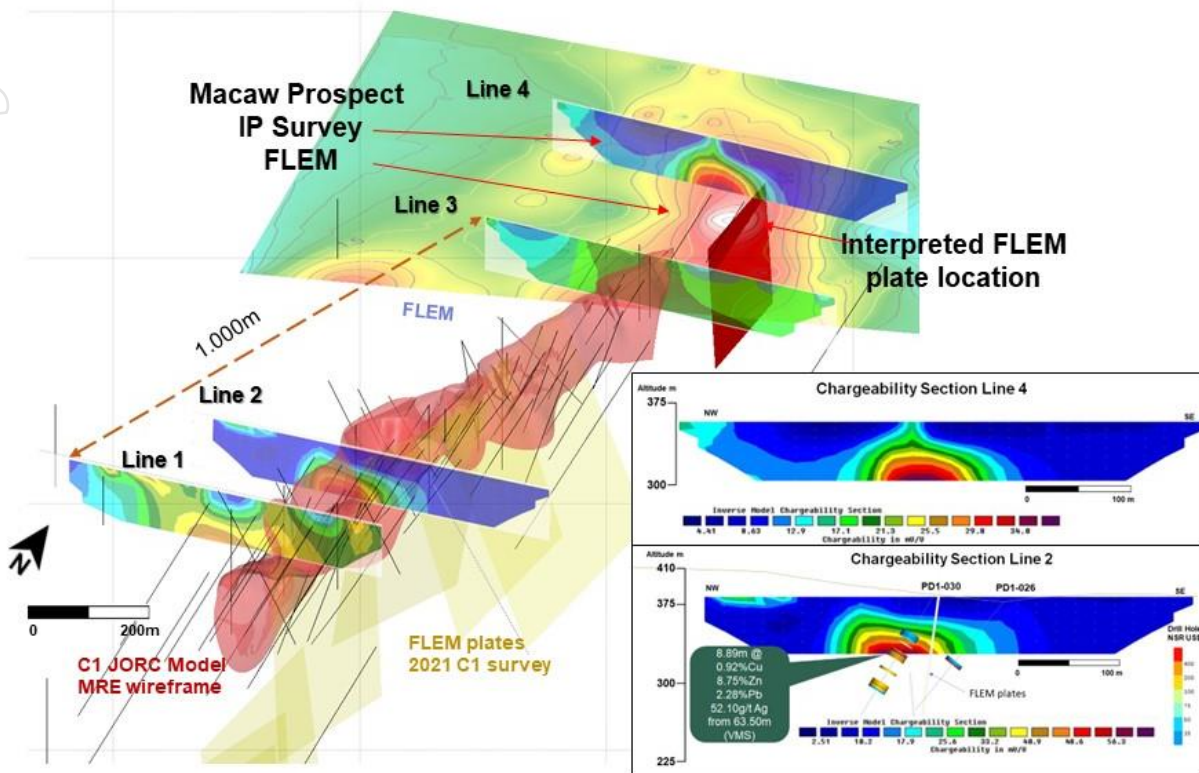


Figure 3. Layout of C1 and Macaw with IP lines and new FLEM at Macaw.

Next Steps

- Completion of phase 1 diamond drilling at C1.
- Phase 2 diamond drilling to commence at C3 to test depth and along strike extensions of high-grade VMS mineralisation as defined by FLEM and DHEM.
- FLEM survey is being completed at C3 West and DHEM survey is scheduled to commence shortly at C3.
- Drill test discovery targets at Mafico, Macaw and C3 West and follow up with additional drilling and/or DHEM as required.
- The Company plans to re-survey C1 and this will include the survey of any new high-priority exploration targets identified.
- Metallurgical testwork from C3 to commence in July.

References to Previous ASX Announcements

As reported in the announcement "ALVO TO INITIATE EM SURVEY AND SECURES ADDITIONAL DRILL RIG FOR 2022" dated 8 December 2021 issued by Alvo Minerals Limited

As reported in the announcement "ALVO LAUNCHES MAIDEN DRILL PROGRAM AT C3" dated 26 October 2021 issued by Alvo Minerals Limited



As reported in the announcement "ALVO TO INITIATE EM SURVEY AND SECURES ADDITIONAL RIG FOR 2022" dated 8 December 2021 issued by Alvo Minerals Limited

As reported in the announcement "C3 DELIVERS EXCEPTIONAL DRILL RESULTS INCLUDING 10.57m @ 6.27% COPPER & 14.76% ZINC" dated 14 February 2022 issued by Alvo Minerals Limited

As reported in the announcement "FURTHER OUTSTANDING DRILL RESULTS INCLUDING 36m @ 1.49% COPPER & 8.58% ZINC" dated 30 March 2022 issued by Alvo Minerals Limited

As reported in the announcement "C3 DEPOSIT – 7.0M @ 5.2% Cu, 8.0% Zn & 7.4M @ 2.2% Cu, 23.1% Zn" dated 3 May 2022 issued by Alvo Minerals Limited

As reported in the announcement "RC DRILLING DOWNHOLE AND FIXED LOOP EM SURVEYS TO COMMENCE AT C3" dated 24 May 2022 issued by Alvo Minerals Limited

As reported in the announcement "C1 DELIVERS OUTSTANDING HIGH-GRADE POLYMETALLIC DRILL RESULTS" dated 14 June 2022 issued by Alvo Minerals Limited

In relation to the Mineral Resource Estimate (the "MRE") and other exploration results or estimates cross-referenced above, these are extracted from the Independent Geologists' Report prepared by Target Latin America and others (the "IGR"), which is included in full in Alvo's prospectus dated 30 July 2021 (the "Prospectus") and which was announced to ASX within the Prospectus on 18 October 2021. Alvo confirms that it is not aware of any new information or data that materially affects the information included in the IGR and that all the material assumptions and technical parameters underpinning the Inferred Mineral Resource Estimate continue to apply and have not materially changed.

Forward Looking Statements

Statements regarding plans with respect to Alvo's Palma Project and its exploration program are forward-looking statements. Forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside Alvo's control and actual values, results or events may be materially different to those expressed or implied herein. Alvo does not undertake any obligation, except where expressly required to do so by law, to update or revise any information or any forward-looking statement to reflect any changes in events, conditions or circumstances on which any such forward-looking statement is based.

Competent Person's Statement

The information contained in this announcement that relates to recent exploration results is based upon information compiled by Mr Rob Smakman of Alvo Minerals Limited, a Competent Person and fellow of the Australasian Institute of Mining and Metallurgy. Mr Smakman is a full-time employee of Alvo and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the "Australasian Code for Reporting of Mineral Resources and Ore Reserves" (or JORC 2012). Mr Smakman consents to the inclusion in this announcement of the matters based upon the information in the form and context in which it appears.

This announcement has been approved for release by the Board of Alvo Minerals Limited.



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ABOUT ALVO

Alvo Minerals (ASX: ALV) is a base and precious metals exploration company focused on the high-grade copper-zinc VMS Palma Project in Central Brazil.

Alvo's strategic intent is to aggressively explore to deliver growth through discovery, leveraging managements' extensive track record in Brazil. There are three phases to the exploration strategy – **upgrade, expand and discover**.

Alvo is committed to fostering best in class stakeholder relations and supporting the local communities in which it operates.

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JORC Tables

Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections, note data in this section is extracted from historic reports)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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 Nickel that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> No sampling is being reported.
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> No sampling is being reported.
Drill sample recovery	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No sampling is being reported.
Logging	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No sampling is being reported.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No sampling is being reported.



Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No sampling is being reported. Alvo undertook a series of Fixed Loop Electromagnetic Surveys (FLEM), utilising equipment purchased from EMIT Australia. Equipment specifications include; SMARTx4 Transmitter, SMARTem24 Receiver and SMART Fluxgate. When Downhole Electromagnetic (DHEM) surveys are started, Alvo will use the DigiAtlantis probe. During the surveys, environmental influences were noted that could affect data capture during the survey. These include fences, powerlines and weather conditions. Data was downloaded and analysed by Alvo's consultant for independent analysis on a daily basis
Verification of sampling and assaying	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No sampling is being reported.
Location of data points	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Alvo is using p GPS to locate and execute the ground EM survey. All location data has been recorded SIRGAS 2000 UTM zone 22S Topographic control is adequate for the exploration at Palma.
Data spacing and distribution	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Data spacing for the FLEM survey was as follows; Stations were generally 25 apart on E-W lines (in areas where additional readings were required due to 'noise' or a noticeable anomaly, station spacing was reduced to 12.5m or 6m accordingly), which were a minimum of 800m long (and up to 2km). Lines were generally 150m apart. The ground loop at C3 and Mafico had dimensions of 400m wide and 900m long. The ground loop at Macaw had dimensions of 400m wide and 1,000m long. The C3 West loop has dimensions of 400m wide and 900m long. A total of 28.6 line km of EM surveys have been completed to date (3rd July)
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The loop was laid out north south to facilitate data capture, which is approximately parallel to the interpreted ore-body orientation.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> NA
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> NA



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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> C1 (including Macaw) is located on tenements 811.702/1975, 811.686/1975 and 860.310/1984. C3 (including Mafico and C3 West) is located on exploration tenement 800.744/1978 all of which are part of the agreement Alvo has with the CPRM (Geological Survey of Brazil). Alvo has the right to explore and eventually transfer 100% of these and other tenements, subject to several staged payments, drilling and payment of 1.71% royalty (above statutory government royalties). Alvo is confident the tenements are all in good standing and no known impediments exist for further exploration or eventual mining, apart from normal statutory reporting, local access agreements and state and federal approvals.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Exploration by other parties' form much of the work completed on the project. The work was completed to high standard for the time and Alvo was able to estimate a JORC compliant mineral resource estimate based on the information and work completed by the CPRM. A VTEM survey was flown by Votorantim/Lara in 2008 which defined multiple conductors across the district. The data from the VTEM survey is not considered accurate enough for direct drill targeting.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Palma polymetallic project is located principally in the Palmeiropolis volcano-sedimentary sequences (PVSS), composed of a series of bimodal volcanic rocks and associated sedimentary units, regionally metamorphosed to amphibolite facies. The mineralisation is of a Volcanogenic Massive Sulphide (VMS) type, occurring at or near the contact between a meta-igneous volcanic unit and meta-sedimentary schist and comprises pyrite, pyrrhotite, sphalerite, galena, chalcopyrite, occurring as disseminated, brecciated and massive form.
Drill hole Information	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No drill results are being reported



Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No assay results are being reported
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> 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'). 	<ul style="list-style-type: none"> No assay results are being reported
Diagrams	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> See diagrams reported in the announcement
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> NA

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Extensive exploration data and information has been completed at the Palma Project and previously reported. A summary is provided below; Airborne geophysics. There have been several combined aeromagnetic and radiometric surveys which cover the area, generally flown by Brazilian Government Agencies. These are generally broad spaced and useful for regional context. In 2008, private groups Lara Minerals and Voltorantim SA flew an heli-borne VTEM survey across the area which highlighted multiple conductors (including the conductor detailed in the announcement). These may be related to massive sulphide accumulations, however most of these potential conductors were not followed up. Drilling: Drilling by the CPRM was completed in the '70's and '80's and is included in this summary for the C1 and C3 prospects. CPRM also drilled other targets at C2, C4 and C5 where they discovered mineralisation. CPRM also drilled several targets that did not intersect economic mineralisation. JICA drilled 7 holes in the 1980's mainly around the C4 target. Lara/Votorantim drilled 11 holes into targets they defined from the VTEM survey. Metallurgical testwork: The CPRM completed several phases of metallurgical testwork including bench and pilot plant scale. This testwork is summarised in the report. Alvo estimated a JORC compliant resource for the C1 and C3 prospects.
Further work	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Alvo has embarked on a 10,000m diamond drilling program, designed to upgrade the category of known resources, expand known resources and make new discoveries. Alvo will use geochemistry, geophysics, geological mapping as required.

