4 July 2023

# Geophysics Generates Significant Prospective Drill Targets at Formentera and Tomas III

## Highlights

- Southernrock Senior geophysicist and GM, Jeremy Barrett stated that at Formentera "the inversion models for the Magneto-Telluric data describe a conductive setting, **with two north to northwest trending corridors of low resistivity"**.
- Results for the three MT survey lines at Formentera, where assays of up to **1,122ppm lithium** were recorded*, show a significant volume of brines indicated by low resistivity values described by Barrett as "the deeper corridors of low resistivity (0.3-2.0 Ωm) present a gradual transition to higher resistivity at **depths of as much as 1km"**.
- The planned **10 hole drill program** and associated infrastructure, such as accommodation, has been organised for what is expected to be a **50 day drill program** and will commence as soon as the **drill permit is issued** by Jujuy Secretary of Mines - expected shortly for Formentera and Cilon.
- Tomas III also showed a highly conductive area in the south, it has an EIA and drilling permit approved and **issued for two Diamond Drill** Holes.

* ASX release dated 2 June 2023, "Sampling at Formentera and Cilon Assays 1122ppm Lithium".

**Patagonia Lithium Ltd (ASX:PL3** or **Company**) is pleased to announce that it has now received the full report from Southernrock Geophysics which highlights two major low resistivity zones which implies the presence of brines providing the conductivity. The survey was able to penetrate down to 2km and identified two very low resistivity zones.

***Figure 1.1** - Formentera/Cilon, Paso Jama Salar, MT survey. Location map of the Formentera/Cilon, Paso Jama Salar survey with Magneto-Telluric survey stations and 200m E-field dipoles ($E_x$ as red, and $E_y$ in green) marked by scaled arrows over a satellite image (GoogleEarth) with a regional location map. North up the page, coordinates WGS84 UTM Z19S.*

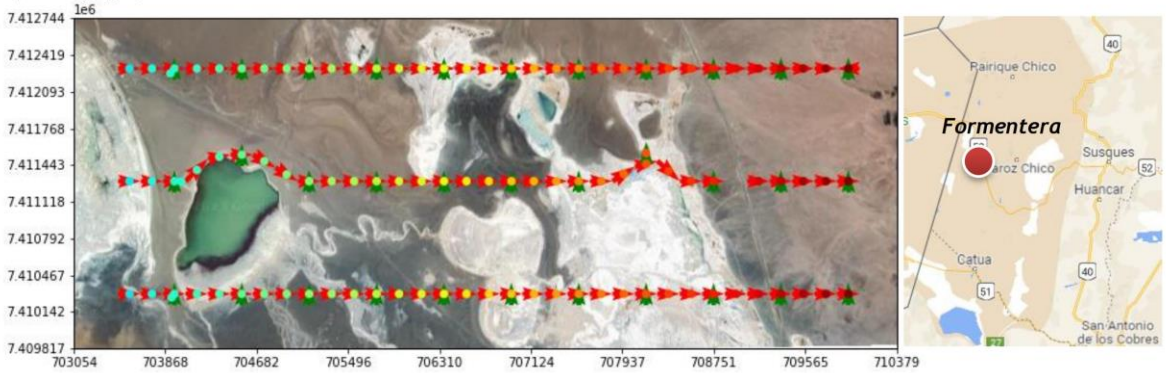


*Figure 1. Location map and extent of MT survey – each line is approximately 10.3km*

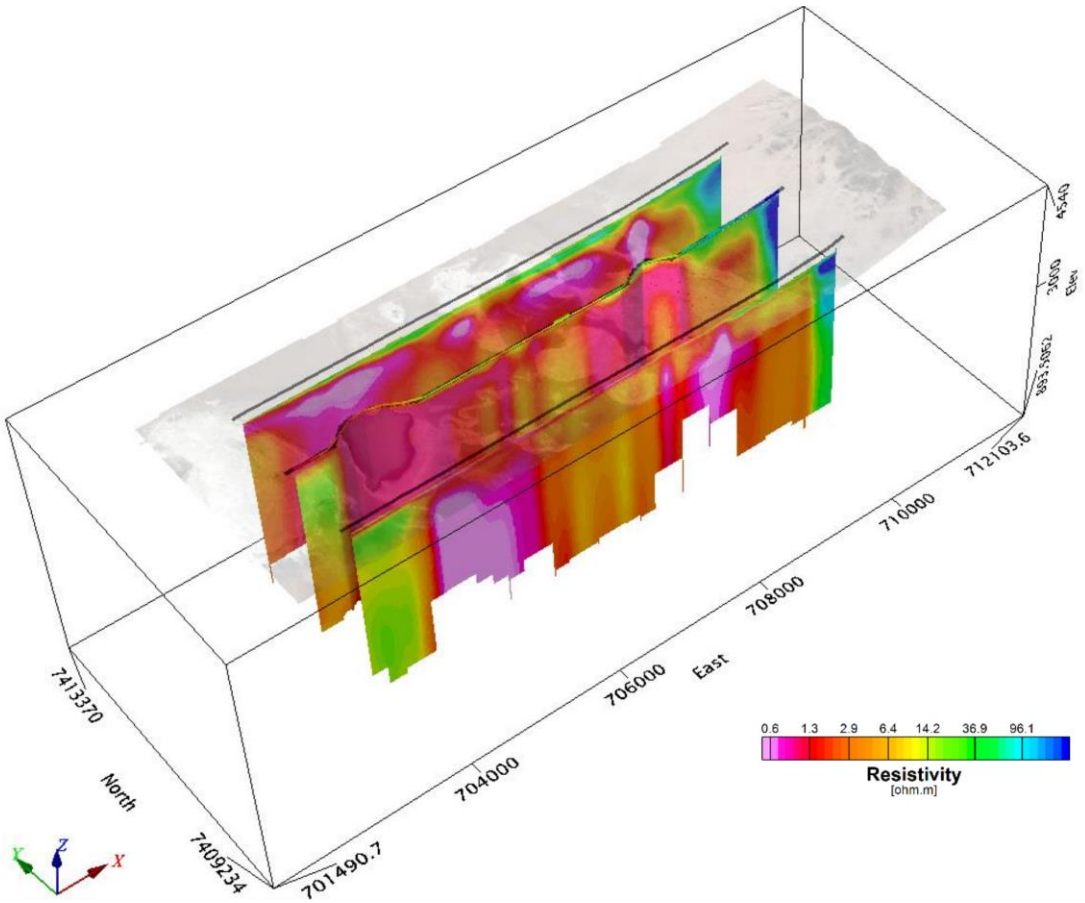


*Figure 2. 1D (vertical lines interpolated into 2D) diagram showing results of the three MT survey lines. Two exceptionally low resistivity areas highlighted in pink with a depth of 1,540m, across a 4.16km x 10.3km area are shown. Areas being considered have a resistivity below 3.0 Ω.m.*

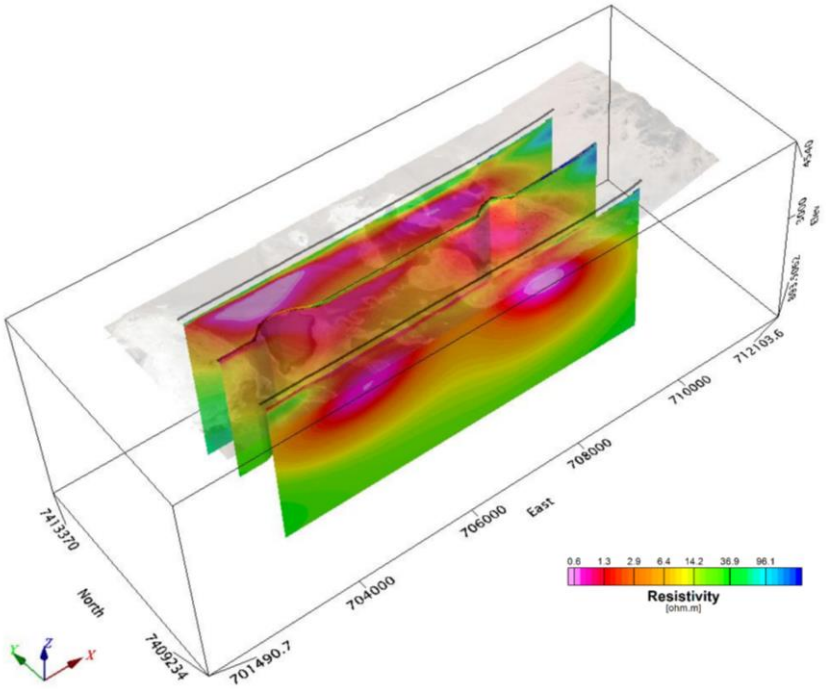


*Figure 3. 2D inversion showing a 2.5D interpolation of vertical values with values below 1.3Ω.m down to 1,540m. The two main brine concentration areas are clearly delineated.*

Phil Thomas, Executive Director stated that "the low resistivity values at Formentera and their depth are very significant - more than 1,000m in depth where the resistivity is less than 0.9 Ohm-m. We potentially have a very large body of brine with two concentration centres up to 5km in length and 4km in width. The volume of this area at a 1,000m depth is approximately 20 billion cubic metres. Drill hole porosity and transmissivity tests will allow us to calculate the amount of brine held in this concession. We know that in some salars, lithium concentrates at depth and this concentration, porosity, transmissivity and brine release information is what we hope to attain with our upcoming drill program."

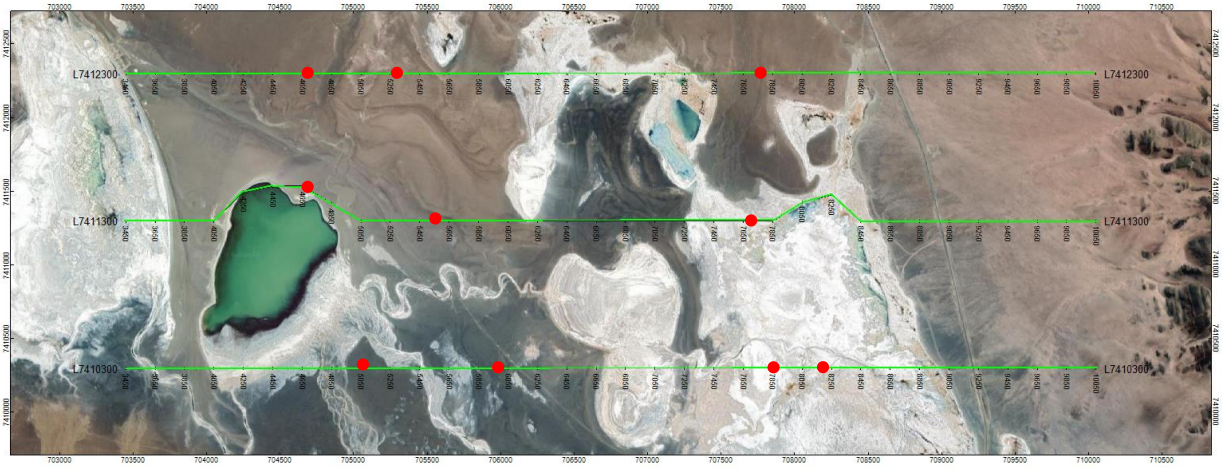


*Figure 4. Geophysics lines 2300, 1300 and 0300 (N-S) reached a depth of 4,000m with very good resolution and continuity. The red circles are proposed drill hole locations.*

Jeremy Barrett commented on Formentera "Phase tensor ellipses (detection around the survey point - added) often align themselves with current flow, such that their long axes will tend to align with structure or will "point" toward conductive zones"; and further stated "There is a transition in the response between about 10Hz and 1Hz, but at frequencies of about 1Hz downward, corresponding broadly to depths of 300m and greater, the rose diagrams illustrate a dominant 150° trend to the long axes, corresponding to the trend of the previously described corridors of low resistivity at depth."

**Tomas III – Incahuasi Salar**

Jeremy Barrett stated that "the inversion models for the Magneto-Tellurics describe a layer of low resistivity (~1 Ωm) beneath the western line 652250mE below an elevation of about 3500masl. A fall in resistivity is modelled for the eastern line 654250mE at a similar elevation, but to more moderate resistivity."

Phil Thomas commented "our drill hole program will survey both ends of the edge of the Tomas III concession adjacent to the salar to determine if there is a porous aquifer creating the low resistivity area. We have a possibility of extending the concession area adjacent to Power Minerals Ltd (ASX:PNN) concession."

***Figure 5.1b** - Tomás III, MT survey. 2D inversion model resistivity section draped beneath topographic surface, viewed from above looking northeast.*

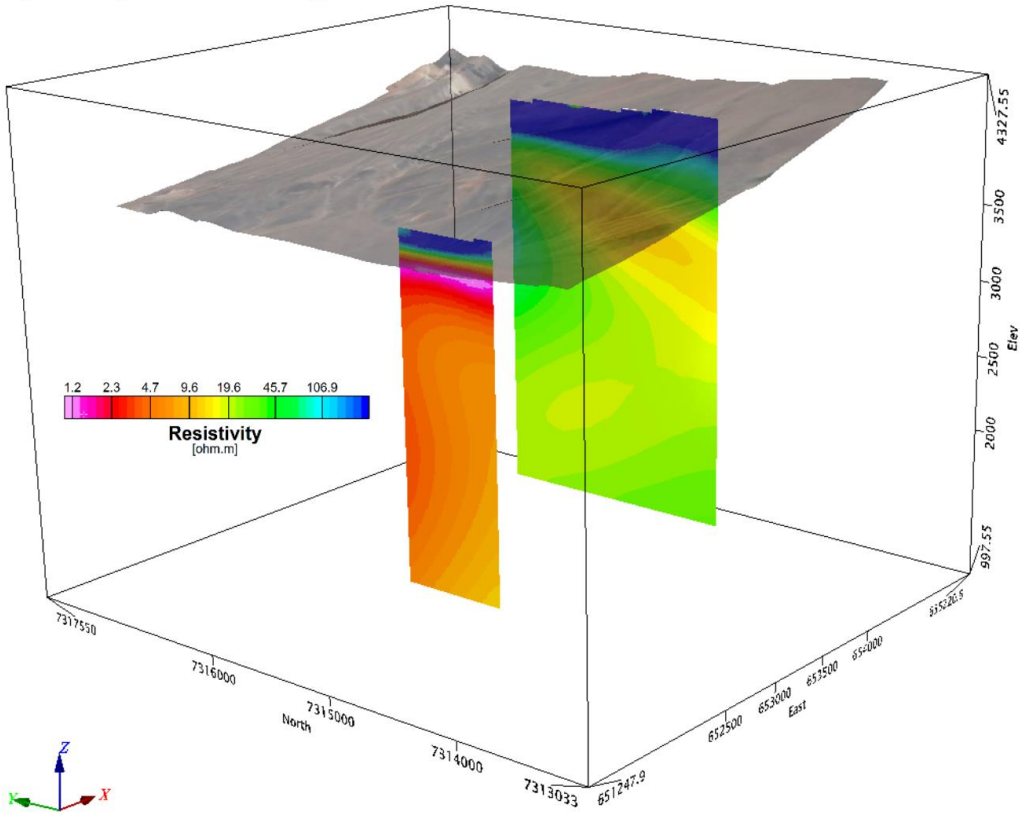


*Figure 5. The MT 2D Inversions show a very low resistivity area close to the surface on the edge of the salar.*

Authorised for release by the Board of the Company. For further information please contact:

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**Competent Person Statement**

*The information in this announcement that relates to the Argentine Lithium Brine project is based on, and fairly represents information compiled by Phillip Thomas, MAIG FAusIMM, Technical Adviser of Patagonia Lithium Ltd and is Executive Chairman, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Thomas has sufficient experience relevant to the style of mineralisation (lithium brines) 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 Thomas consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears. This announcement contains exploration results released as "Survey Results Identify Excellent Drill Targets" on 13 June 2023. The Company confirms that it is not aware of any new information or data that materially affects the previously released results.*

**JORC Code, 2012 Edition – Table 1 – Formentera Mine Expe 518-P-2016 Cilon Mine 121-L-1993 Jujuy**

## *Section 1 Sampling Techniques and Data*

| 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.*<br>• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>• *Aspects of the determination of mineralisation that are Material to the Public Report.*<br>• *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* | • Not Applicable (NA) – no drilling or sampling is being reported. Geophysics is being reported.<br>• The magnetotelleric geophysical survey defined the distribution of the resistivity parameter with respect to depth in the proposed area (as per figure 1 map on press release) in order to characterise the conductivity-thickness of the sedimentary sequence in the corresponding salar environment and in particular to use the parameter as a proxy to define potential hyper conductive brine layers within the subsurface sequence. The surveying used is broadband remote referenced EMAP style Magnetotellurics with data acquisition overnight for the bandwidth of interest (0.01 – 10,000 Hz), to ensure an adequate depth of investigation given the likely highly conductive saline ground water (brines).<br>• Survey specifications are:<br>**Array configuration**: Contiguous Ex-field (200m length) with sparse (every 600m) Ey-field dipoles and sparse local Hx- and Hy-field induction coils. A remote reference site comprised of Hx- and Hy-field coils will be maintained throughout the survey.<br>**R-X Contacts**: Porous-pot electrodes (Cu-CuSO4) or stainless-steel electrodes in small hand dug pits.<br>**Data Acquisition**: Predominantly nocturnal Time series data acquired. gDAS32 sampling rates (Fs) of 128Hz, 2kHz, 32kHz with time series records of 2 22 samples for each repeated at least twice in the acquisition schedule except for Fs=32Hz. Timing provided by internal GPS. |
| *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).* | • **Geophysical Receivers** - AGT / gDAS32 with 2 channels each, see http://www.zonge.us/www.adgeotec.com for technical specifications.<br>• **Induction Coils** - Zonge / ANT-4/6, see www.zonge.us for technical specifications |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| *Drill sample recovery* | • *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>• *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 has been undertaken.<br>• **Geophysics Output -** EDI standard data files 1D, 2D (optional 2.5D) Inversion models of resistivity presented as line points, sections, plan maps and/or 3D visualizations as appropriate. Software: GeoTools, Geosoft.<br>• A 1D and 2D inversion has been produced for lines 0300,1300 and 2300. See body of announcement. |
| *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.*<br>• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*<br>• *The total length and percentage of the relevant intersections logged.* | • No drilling has been undertaken. See 1D, 2D inversion results in announcement. |
| *Sub-sampling techniques and sample preparation* | • *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br>• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>• *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.*<br>• *Whether sample sizes are appropriate to the grain size of the material being sampled.* | • No drilling has been undertaken. |
| | • *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*<br>• *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.*<br>• *Nature of quality control procedures adopted (eg standards, blanks,* | • No drilling has been undertaken. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie 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.*<br>• *The use of twinned holes.*<br>• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>• *Discuss any adjustment to assay data.* | • Data is stored on the Virtual Cloud and at various locations including locally, Chile, & Melbourne, VIC. It is regularly backed-up. |
| *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.*<br>• *Specification of the grid system used.*<br>• *Quality and adequacy of topographic control.* | • Navigation was controlled by an integrated GPS Measurement System with Magnetic Heading Sensors. Topographic control was obtained by handheld GPS.<br>• The topography survey has a rise of 10m.<br>• Grid system used is the 19S UTM Argentine datum WGS84 |
| *Data spacing and distribution* | • *Data spacing for reporting of Exploration Results.*<br>• *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.*<br>• *Whether sample compositing has been applied.* | • 96 geophone (MT) stations conducted on three lines as shown on the map – co-ordinates.<br>• DATUM: WWGS84, UTM 19S |
| *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.*<br>• *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.* | • The brine concentrations being explored generally occur as sub-horizontal layers and lenses hosted by conglomerate, sand, halites, silt and/or clay. Magnetotelleric geophysics shows low resistivity horizontal stratigraphy and the lithological nature of the sub-surface brine bearing aquifers.<br>• While the 2300 survey line had to go around a water feature it was software corrected and there is no effect to results due to the signals vertical orientation. |
| *Sample security* | • *The measures taken to ensure sample security.* | • No drilling was undertaken |
| *Audits or reviews* | • *The results of any audits or reviews of sampling techniques and data.* | • No drilling was undertaken. |

## *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.*<br>• *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 Cilon Mina and Formentera Mina mine concessions were acquired on 8 December 2022. A UGAMP meeting which is the final process to be granted a drill permit was held on the 18 December 2022. All subsequent requisitions have been answered relevant to the proposed drill program. The Formentera area covers 1,752Ha and the Cilon mina covers 199Ha. |
| *Exploration done by other parties* | • *Acknowledgment and appraisal of exploration by other parties.* | • No historical exploration has been undertaken on this licence area.<br>• Some boron mining has taken place on the Cilon mina but results were not recorded. |
| *Geology* | • *Deposit type, geological setting and style of mineralisation.* | • **Evaporitic Lacustrine Deposits** It is an ignimbrite of rhyodacitic composition. It has quartz and plagioclase as Upper Miocene to Lower Pliocene. Andesitic lavas are composed of essential minerals and biotite, zircon and hornblende as accessory components. These types of deposits are located in tectonic depressions such as Jama and Lina Lari and Formentera Cilon, among other. They are chemical sedimentary deposits that give rise to the formation of It is also made up of opaque and lithic fragments of vulcanites, has matrix oligoclase and glass as main components; and hypersthene, opaque and fragments. UPPER MIOCENE – LOWER PLIOCENE SALT FLATS The salt flats are formed by a combination of climatic, tectonic and chemicals. They are mainly composed of carbonates, sulfates, borates and lithics as accessories. The deposits of the Jama Volcanic Complex forming continuous mantles to the north of the Salar de Jama, in the surroundings of the hill It is made up of andesitic and dacitic lavas and ignimbrites. There are no specific records on the volcanism associated with Cerro Jama, it is numerous evaporitic bodies throughout the depression. In most cases, apart from halite, borate mineralization is observed. on both sides of their circulation. They are found widely. **Alluvial Fan Deposits** - The thermal activity would have contributed the boron and Lithium to the Salar de Jama/Salar Formentera and Cilon either by the action distributed with |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | powerful thicknesses. Fluvial deposits are made up of clastic materials with sizes of sand and gravel. They are also part of the accumulations of pyroclastic components of various sizes. directly from endogenous fluids rich in B - Li or else because hot solutions They are foothill deposits represented on the lower slopes of the fronts incorporated this element during their ascent to the surface, leaching rocks borate-bearing tertiaries and boron-enriched volcanic rocks. |
| *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:*<br>○ *easting and northing of the drill hole collar*<br>○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*<br>○ *dip and azimuth of the hole*<br>○ *down hole length and interception depth*<br>○ *hole length*<br>○ *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 drilling was undertaken. |
| *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.*<br>• *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.*<br>• *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | • Not Applicable (NA) – no drilling or sampling is being reported. |
| *Relationship between mineralisation widths and intercept lengths* | • *These relationships are particularly important in the reporting of Exploration Results.*<br>• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>• *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').* | • Not Applicable (NA) – no drilling or sampling is being reported. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| *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.* | • Geophysical figures are provided in the ASX release at an appropriate scale and depict the key results from the detailed magnetotelluric survey. |
| *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.* | • Not Applicable (NA) – no drilling or sampling is being 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.* | • All meaningful and material information is reported. |
| *Further work* | • *The nature and scale of planned further work (eg; tests for lateral extensions or depth extensions or large-scale step-out drilling).*<br>• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | • A 1D and 2D inversion image was created for all three lines and a detailed 1D and 2D inversion models built around the resistivity values. A comprehensive drill program has been developed for implementation when the drill permit is granted. |