6 March 2024

BRAZIL EXPLORATION UPDATE
NIOBIUM/ REE STRUCTURAL TARGETS IDENTIFIED 6KM CORRIDOR

- **Airborne geophysics acquired in the Goias state covering Rare Earths and Niobium showing strong mineralisation structural trends adjacent to CMOC niobium mine covering 6km x 5km area**

- **Significant Database compiled on four Minas Gerais concessions with 38 locations showing pegmatite occurrences from past sampling**

- **Significant heat source meta sediments identified for pegmatites – Tambu granite batholith**

Patagonia Lithium Ltd (ASX:PL3, Patagonia or **Company)** is pleased to advise that it has completed its initial geological research over its five concession packages while waiting for the concessions to be granted. There are five projects in Brazil focussed on carbonatites and ionic clays for rare earths, pegmatites for lithium, and in dolomite carbonatites for Niobium.

Airborne magnetic geophysical data was acquired for the concession in the Goias state where we are exploring for Niobium and ionic clays containing rare earths.

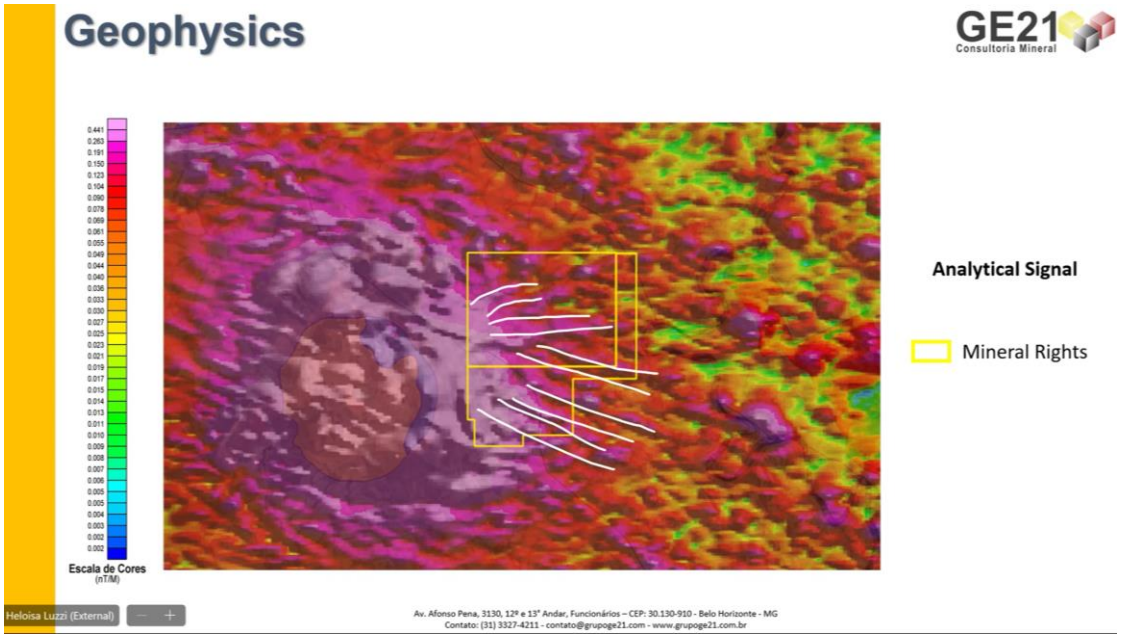

Figure 1. The map above shows a magnetic high with the CMOC Niobium mine to the left of the PL3 concession and 10 fault structures on the Company's Goias concession over 6km in length and 5km width on application 860164/2024 and 860165/2024.

Niobium is found in swarms of dykes. Metasomatic fluids which carry the rare earths and niobium elements deposit in the dykes. The alignment of the fault structures is very encouraging and the close proximity of the heat source. Accordingly, the tenure is considered likely to contain a mull swarm model of deposition of rare earths and niobium. Airborne geophysical data has been compiled from Alto Paranaiba and Faxia Brasilia Sul. The tropical weather is conducive to weathering the Tambu granite that may contain rare earths and concentrate in the resulting clays.

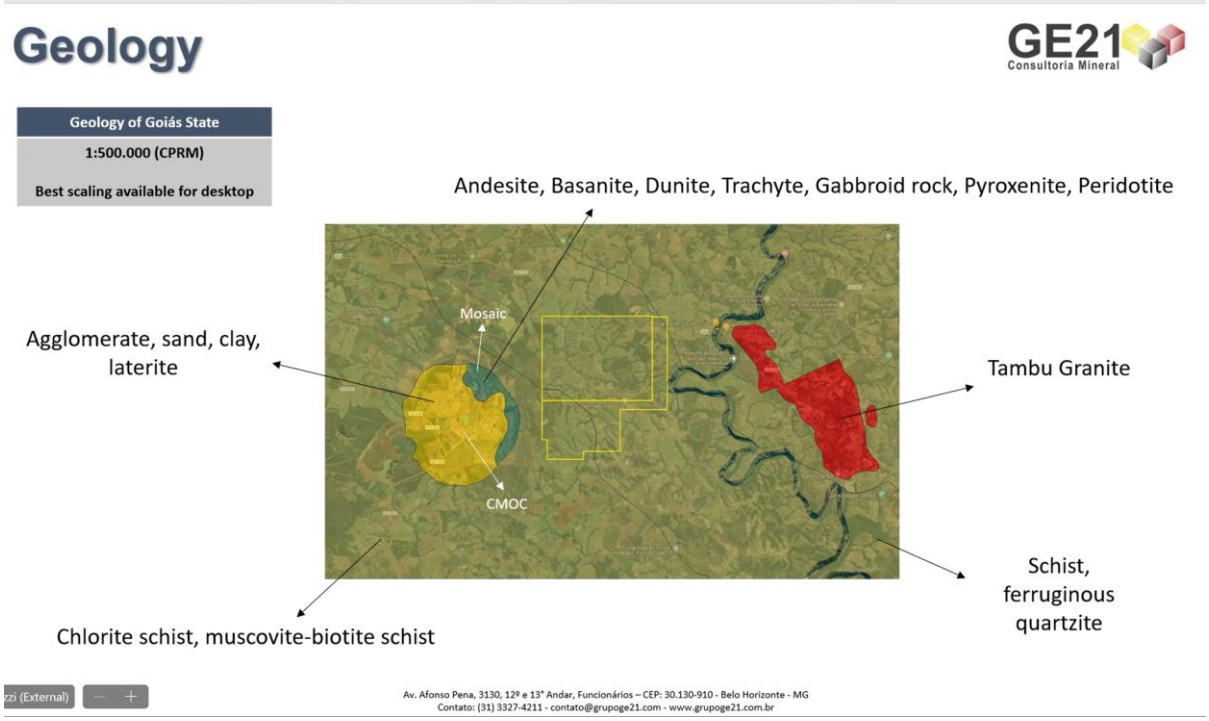

Figure 2. The Tambu granite in red has provided the heat source, which our concession is close to outlined in yellow. The CMOC Niobium mine is filled in yellow. There are heat altered schists and alkaline rocks on our concessions from the State Geological map.

Pegmatites

The Company has compiled data from 38 different sources on geophysical and structural anomalies, occurrence of lithium mineral in pegmatites, metamorphic maps, identified pegmatite bodies in granites and geochemical anomalies and has collated 15 geological maps from the Espinhaco project at 1:100,000 scale. This covers the areas of Joaima to Manhumirim.

The Espinhaco project study area is located in the Southern Espinhaço Range in the Araçuaí Belt (famous for occurrences of rare earths in carbonatites and ionic clays). The Southern Espinhaço Range extends along the southeastern margin of the São Francisco Craton (Almeida 1977) and hosts the Gouveia granite-gneiss complex and the Pedro Pereira Group, composed of mafic schist and banded iron formations (BIFs), with both geological units dating to the Archean eon. There are also outcrops of metasedimentary rocks from the Costa Sena Group and Espinhaço Supergroup

dating to the Proterozoic eon. Subordinately, metabasic rocks occur in association with the Pedro Lessa suite (Knauer 2007)[1].

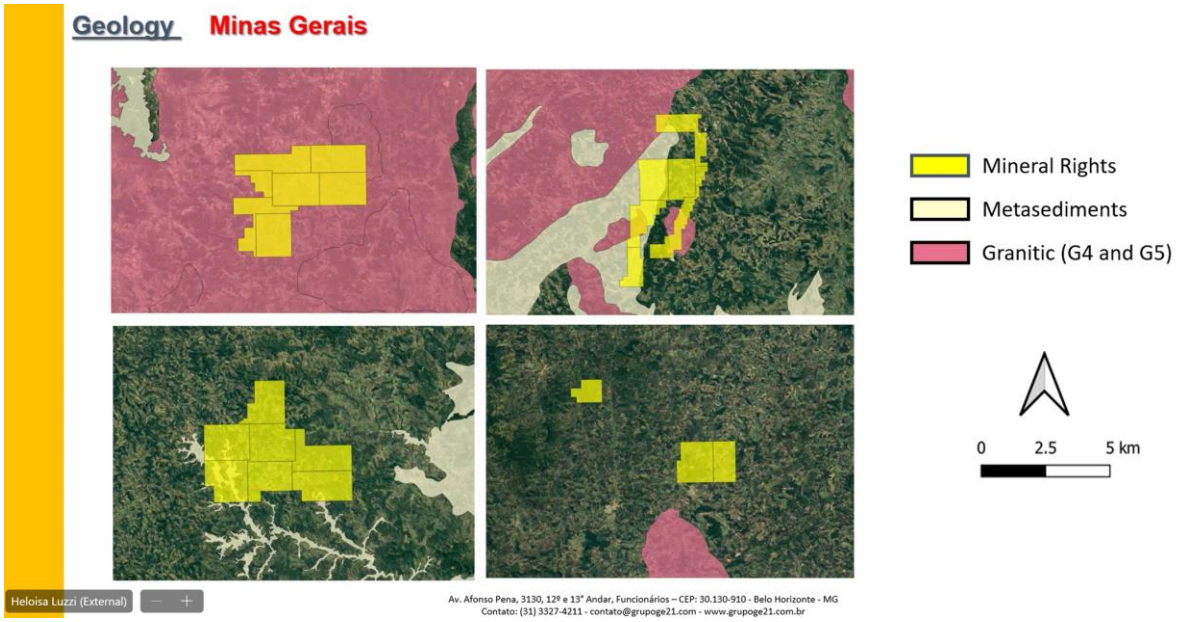

Figure 3. The meta sediments in light green are the heat source for metasomatic fluids carrying lithium. The granitic bodies with late structural deformation events (called G4 and G5) dominate our concessions.

Phil Thomas, Executive Chairman commented "We have been able to make significant progress over the past week with our team at GE21. Our exploration field program is coming together to identify prospective locations for sampling these very prospective Brazilian assets when granted. The Company's next major acquisition is geophysics data in the Minas Gerais state covering our four concessions for lithium and rare earths in granites."

Authorised for release by the Board of the Company.

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[1] Knauer, G., 2007. O Supergrupo Espinhaço em Minas Gerais: considerações sobre sua estratigrafia e seu arranjo estrutural. Geonomos 15 (1), 81–90.

Competent Person Statement

The information in this announcement that relates to the Brazil exploration licences that have not been granted but only applied for. It 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, rare earths and niobium) 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.

About Patagonia Lithium Ltd

Patagonia Lithium has two major lithium brine projects – 1,951 Has at Formentera/Cilon in Salar de Jama, Jujuy province and Tomas III at Incahuasi Salar in Salta Province of northern Argentina in the declared lithium triangle. It has also applied **for 41,746 Has** of concessions exploring for **ionic REE clays and carbonatites, Niobium, and lithium in pegmatites**. Five exploration concession packages have been applied for.

Since listing on 31 March 2023, surface sampling and MT geophysics have been completed in preparation of an upcoming drill program at Formentera, and MT Geophysics at Tomas III that was very prospective. In July 2023, a 13 hole drill program was submitted for approval which was granted in January 2024. Samples as **high as 1,100ppm lithium** (2 June 2023 announcement) were recorded at Formentera and resistivity values as low as 0.3Ω.m were recorded during the MT Geophysics survey at Formentera making the project highly prospective. The Company confirms it is not aware of any new information or data that materially affects the information in this announcement.

JORC Code, 2012 Edition – Table 1 – application 860164/2024, 860165/2024

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.* • *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*	• Not Applicable (NA) – no drilling or sampling is being reported. Geophysics is being reported. • The aerial magnetic geophysical survey defined the distribution of the nano tesla magnetic parameter with respect to depth in the proposed area (as per figure 1 map on above press release) in order to characterize the structural geology of the sedimentary sequences. in the corresponding granitic environment and in particular to use the parameter as a proxy to define potential metasomatic alterations carrying niobium or rare earths. • Survey specifications are: the aeromagnetic data acquired from June to November of 2004, at the SW of Goias State. ´ The survey was performed along north-south oriented acquisition lines with 500 m spacing and east-west oriented control lines with 5 km spacing. The flight height was 100 m. Observations were taken at a rate of 10 measurements per second and were positioned by GPS with accuracy of ±10 m. More details on the processing of the raw data and survey parameters can be found in the survey report (LASA, 2004). The magnetic anomaly map (Fig. 1) was obtained after the removal of the International Geomagnetic Reference Field (IGRF) from the aeromagnetic survey. It is possible to see that the magnetic anomaly field is more positive than expected for the magnetic latitude. This happens because there are few geomagnetic observatories in South America compromising the resolution of IGRF in the area. Hence, a polynomial tendency with a second order was removed in the study area. The total gradient has been used as a tool to detect the edges of the magnetic anomaly source. The total gradient is obtained from the horizontal (x, y) and vertical (z) derivatives of the magnetic field; it presents the maximum value over the magnetic contrast.

Criteria	JORC Code explanation	Commentary
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 was undertaken.
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 has been undertaken.
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 has been undertaken.
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 has been undertaken.
	• *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*	• No drilling has been undertaken.

Criteria	JORC Code explanation	Commentary
	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.*	
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Data is stored on the Virtual Cloud and at various locations including locally, Brazil & 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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Navigation was by GPS at 500m intervals 200m from the ground.
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.*	• No MRE was calculated.
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.*	• The relationship can be related with the mafic-ultramafic lithology of the mapped intrusions. The outstanding features in this map are the systems of magnetic lineaments with same directions. According to results of geologic studies the preferred directions of structural features of Precambrian age in the study area is predominantly south west to northeast.
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.* • *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 concessions have not been granted and we have obtained geophysics data in the public domain from the Brazil Geological Bureau ANM.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• No historical exploration has been undertaken on this licence area.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Bouguer anomalies usually display gravimetric highs related to denser mafic and ultramafic rocks. The magnetic anomalies are bipolar with strong intensity for the negative and positive lobes. The mafic rocks usually contain large amounts of magnetic minerals which produce the observed magnetic anomalies. The alkaline complexes present induction magnetization, from the interaction with the present day magnetic field, and remanent magnetization, which relates with the age and geological history of the intrusions.
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 drilling was undertaken.

Criteria	JORC Code explanation	Commentary
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.*	• 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.* • *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').*	• Not Applicable (NA) – no drilling or sampling is being reported.
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 to date from the detailed aero magnetic 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.

Criteria	JORC Code explanation	Commentary
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.*	• Sampling and mapping will be conducted and a drill program developed and recommended by staff and consultant geologists.