ASX ANNOUNCEMENT
14th December 2023
ASX: PEC

PATHFINDER ELEMENTS SUGGEST POTENTIAL FOR LCT-TYPE PEGMATITES IN BRAZIL

HIGHLIGHTS

- **Single rock-chip and grab samples show encouraging presence of pathfinder elements, suggesting potential for LCT-type pegmatites within Perpetual's Brazil exploration permits.**
  - **Some samples returned anomalous Li_2O mineralisation (up to 116 ppm), confirming favourable geological setting and providing focus areas for in-fill soil sampling in future exploration programs.**
  - **Individual sample fertility ratios (K:Rb ratios as low at 95 & Nb:Ta ratios as low at 2.5) suggest potential for hydrothermal alteration & increased fractionation.**
- **Proximity of Perpetual's prospect areas to existing tier 1 spodumene resources in the world class Minas Gerais region of Brazil, as well as indications from these sample results, suggest further exploration success likely once highest priority areas are identified.**
- **Exploration teams currently on site with additional regional and in-fill sample testing results expected early in 2024.**

Perpetual Resources Limited (ASX: **PEC**, "PEC", "**Perpetual**" or "the **Company**") is pleased to announce the results of recent reconnaissance rock-chip and grab sample analysis, which was conducted across broad areas of the Company's prospective exploration tenements in the Minas Gerais region of Brazil, known as "Lithium Valley".

The sampling program was conducted during a site visit in late October, and involved samples collected from easily accessible outcrops only, while undertaking preliminary traverses of each of Perpetual's various exploration permits.

The aim of this program was to enhance Perpetual's understanding of the geochemical composition of the area and to identify potential anomalism for lithium and various lithium pathfinder elements and to assist with future, more targeted exploration efforts.

The region is underexplored with Perpetual being the first company to focus on lithium exploration within the prospect areas. With limited historical mineral exploration, this initial work has established potential for Lithium–Caesium–Tantalum (**LCT**) type mineralisation. Work is currently underway to systematically explore the region and establish a significant exploration data set, which will aid in the identification of additional high priority areas of interest within the underexplored region.

Perpetual Resources Ltd | ACN: 154 516 533
T: +61 433 180 967
E: info@perpetualresourceslimited.com.au
W: perpetualresourceslimited.com.au
A: Suite 2, 68 Hay Street,
Subiaco, Western Australia 6008

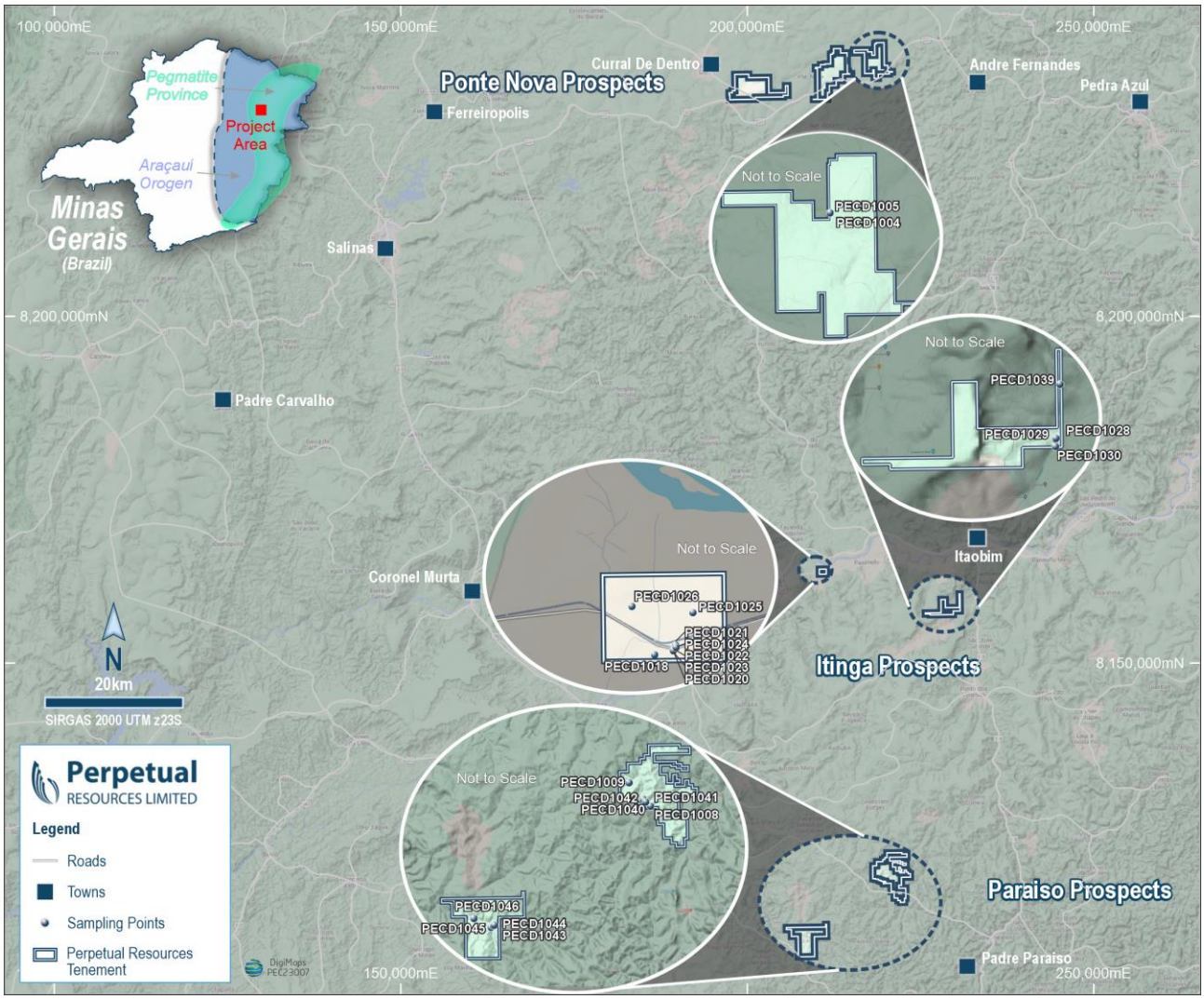

Figure 1: Wide distribution of Rock Chip Samples from preliminary reconnaissance trip in October 2023. Two (2) samples taken from Ponte Nova, twelve (12) from Itinga & nine (9) from Padre Paraiso, noting sampling only conducted from easy to access pegmatites.

Mr. Allan Stephens, Perpetual's Exploration Manager, commented, "*In the initial phase of broad-spaced sampling during our preliminary field reconnaissance in October, which was undertaken with tight timeframes due to the desire to cover vast areas of our new tenements, the obtained results delivered notable anomalism.*

The geochemical ratios and pathfinder elements suggest a fertile geological setting, with potential for LCT-type pegmatites. This data also aligns consistently with the sizable lithium resources that have been discovered in the region.

Our exploration team has promptly initiated follow-up fieldwork, underway currently, and looks forward to reporting follow up sampling results in the first quarter of 2024."

Figure 2. Exploration efforts currently underway in the Itinga Project.

Next Steps

Perpetual's technical team, collaborating with in-country geologists, is currently undertaking a more substantial follow-up exploration site visit, which will be guided in part by these positive anomalous results.

Additional and comprehensive field work programs, involving an extensive soil sampling campaign aimed at pinpointing and defining further lithium and/or pathfinder anomalies are underway.

The use of an in-field pXRF machine is expected to greatly improve the focus of current and future exploration programs, allowing an enhanced real-time geological assessment which is expected to speed to identification of the highest priority areas within the identified anomalous zones.

Further exploration updates are expected in the first quarter of 2024.

Figure 3: Weathered green-grey elongated crystals (<10% of rock mass, blue lines) which is suspected spodumene. Found on current trip, within Itinga permit 832837/2023.

Sampling program results

A total of 26 rock samples were examined across the Itinga, Ponte Nova, and Paraiso prospect areas with analysis undertaken by ALS Laboratories in Belo Horizonte, Brazil.

Most encouraging was that specific samples recorded anomalous lithium levels, with Li_2O results of up to 116ppm.

The results also indicate that some samples suggest characteristics of Fertile Pegmatites, specifically concerning K:Rb (individual samples reported a ratio as low as 95.6) and Nb:Ta (individual samples reported a ratio as low as 2.5). The K:Rb and Nb:Ta ratios are widely accepted factors in determining lithium fertility ratios.

These ratios serve as markers for magmatic fractionation and hydrothermal alteration processes, aiding in the identification of rocks with the potential to host incompatible elements, such as lithium.

The findings of this analysis regarding the geochemical ratios for all 26 rock chip samples (please refer to the complete listing of Rock Chip results on page 8), pleasingly demonstrate that some outlier results were achieved, suggesting potential for characteristics of an LCT-type pegmatite field.

Given the limited areal extent covered during the site visit, further ground reconnaissance, involving more targeted soil sampling and mapping, along with a more comprehensive assessment of outcropping pegmatites, is expected to delineate additional fertile zones within Perpetual's tenement areas.

- ENDS -

This announcement has been approved for release by the Board of Perpetual.

KEY CONTACT

Robert Benussi

Managing Director
E info@pecsilica.com.au

About Perpetual Resources Limited

Perpetual Resources Limited (Perpetual) is an ASX listed company pursuing exploration and development opportunities within the critical mineral sector. Perpetual's Beharra Silica Sand Project is located 300km north of Perth and is 96km south of the port town of Geraldton in Western Australia.

Perpetual is also active in lithium exploration activities in the Minas Gerais region of Brazil, where it has acquired approximately 9,000 hectares of highly prospective lithium exploration permits, within the pre-eminent lithium (spodumene) bearing region that has become known as Brazil's "Lithium Valley".

Perpetual also continues to review complementary acquisition opportunities to augment its growing portfolio of exploration and development projects.

Reporting visual estimates of mineralisation

Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations. The Company expects to receive the laboratory analytical results of rock chip samples in the March quarter of 2024.

Forward-looking statements

This announcement contains forward-looking statements which involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

Disclaimer

No representation or warranty, express or implied, is made by Perpetual that the material contained in this document will be achieved or proved correct. Except for statutory liability and the ASX Listing Rules which cannot be excluded, Perpetual and each of its directors, officers, employees, advisors and agents expressly disclaims any responsibility for the accuracy, correctness, reliability or completeness of the material contained in this document and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person through use or reliance on any information contained in or omitted from this document.

Competent Person Statement

The information in this report related to Geological Data and Exploration Results is based on data compiled by Mr. Allan Harvey Stephens. Mr. Stephens is an Exploration Manager at Perpetual Resources Limited and is a member of both the Australasian Institute of Mining and Metallurgy (AusIMM) and the Australian Institute of Geoscientists (AIG). He possesses sound experience that is relevant to the style of mineralisation and type of deposit under consideration, as well as the activities he is currently undertaking. Mr. Stephens qualifies as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources, and Ore Reserves.' He provides his consent for the inclusion of the matters based on his information, as well as information presented to him, in the format and context in which they appear within this report.

ASX ANNOUNCEMENT
14th December 2023
ASX: PEC

Appendix A: Rock Chip Results

Lithium and pathfinder results highlighted – Li2O at 116.3ppm, K/Rb at 95.6 and Nb/Ta at 2.5. Coordinates provided in SIRGUS 2000 /UTM 23S, Sampling Methods described in Appendix B: JORC Code, 2012 Edition - Table 1.

Area	Tenement ID	Northing	Easting	ID	Cs ppm	K ppm	Li ppm	Nb ppm	Rb ppm	Sn ppm	Sr ppm	Ta ppm	K/Rb	Nb/Ta	Li2O ppm
Itinga	830489/2023	851062	8161955	PECD1017	2.6	41100	12.0	6.2	146.5	6.0	80.0	0.6	280.5	10.5	25.8
Itinga	830489/2023	851061	8161954	PECD1018	8.5	73200	41.0	16.3	338.0	9.0	110.0	1.3	216.6	12.2	88.3
Itinga	830489/2023	851215	8161982	PECD1020	7.7	50000	27.0	10.2	259.0	6.0	70.0	1.3	193.1	7.7	58.1
Itinga	830489/2023	851236	8162029	PECD1021	7.2	43600	28.0	7.5	169.0	5.0	80.0	0.9	258.0	8.4	60.3
Itinga	830489/2023	851224	8161995	PECD1022	10.2	49500	20.0	12.1	293.0	11.0	50.0	2.9	168.9	4.2	43.1
Itinga	830489/2023	851216	8161983	PECD1023	7.7	50200	22.0	15.9	293.0	9.0	40.0	1.9	171.3	8.4	47.4
Itinga	830489/2023	851240	8162010	PECD1024	10.6	15800	54.0	7.0	80.9	8.0	90.0	0.9	195.3	8.2	116.3
Itinga	830489/2023	851386	8162292	PECD1025	20.8	72300	20.0	6.7	461.0	16.0	80.0	2.0	156.8	3.4	43.1
Itinga	830489/2023	850885	8162358	PECD1026	8.5	71500	31.0	4.4	340.0	11.0	90.0	0.7	210.3	5.9	66.7
Itinga	830490/2023	870671	8156211	PECD1028	9.0	52900	40.0	15.8	309.0	7.0	90.0	1.9	171.2	8.5	86.1
Itinga	830490/2023	870664	8156185	PECD1029	9.8	46300	54.0	17.4	309.0	21.0	120.0	2.2	149.8	7.9	116.3
Itinga	830490/2023	870652	8156006	PECD1030	6.7	54200	44.0	18.1	335.0	16.0	130.0	1.4	161.8	13.2	94.7
Itinga	830490/2023	870812	8157570	PECD1039	5.6	70900	21.0	4.6	315.0	9.0	110.0	0.6	225.1	7.9	45.2
Itinga	830492/2023	850443	8163224	PECD1053	7.5	57800	20.0	4.8	220.0	17.0	70.0	1.9	262.7	2.5	43.1
Itinga	830492/2023	849898	8162871	PECD1054	11.8	62800	46.0	10.8	337.0	17.0	230.0	1.6	186.4	6.9	99.0
Padre Paraiso	830491/2023	859188	8117142	PECD1008	2.6	70400	14.0	5.6	271.0	3.0	90.0	1.1	259.8	5.2	30.1
Padre Paraiso	830491/2023	857739	8118838	PECD1009	1.4	49100	25.0	7.0	177.5	<3	160.0	0.5	276.6	15.2	53.8
Padre Paraiso	830491/2023	858864	8117447	PECD1040	4.3	52100	20.0	12.0	291.0	7.0	70.0	1.2	179.0	9.7	43.1
Padre Paraiso	830491/2023	858699	8117632	PECD1041	3.1	54900	19.0	9.0	243.0	5.0	70.0	0.9	225.9	9.8	40.9
Padre Paraiso	830491/2023	858684	8117682	PECD1042	3.1	71600	12.0	6.2	385.0	6.0	60.0	0.4	186.0	15.9	25.8
Padre Paraiso	830491/2023	847748	8108994	PECD1043	15.0	55000	28.0	26.1	408.0	11.0	60.0	5.1	134.8	5.1	60.3
Padre Paraiso	830491/2023	847912	8109097	PECD1044	5.0	52200	20.0	5.6	294.0	7.0	80.0	1.1	177.6	5.2	43.1
Padre Paraiso	830492/2023	847909	8109096	PECD1045	6.7	14000	38.0	33.1	146.5	5.0	30.0	4.6	95.6	7.2	81.8
Padre Paraiso	830492/2023	846563	8109656	PECD1046	9.6	38500	18.0	19.2	225.0	15.0	70.0	3.6	171.1	5.3	38.8
Ponte Nova	832019/2023	860728	8236680	PECD1004	0.8	6100	8.0	34.4	45.4	4.0	40.0	1.1	134.4	31.6	17.2
Ponte Nova	832019/2023	860901	8236659	PECD1005	3.6	52200	4.0	50.2	274.0	3.0	50.0	8.2	190.5	6.1	8.6

Appendix B: JORC Code, 2012 Edition – Table 1

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.*	• The rock chip samples, weighing around 2-5 kilograms each, were taken randomly from exposed outcrops and weathered areas in the field. It's important to note that these samples do not accurately reflect the potential mineral grade at greater depths. • The type of mineralisation being sought after is associated with pegmatite intrusions that host lithium and tantalum, and the likely sources are specific S-type Granites and Leucogranites
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
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
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.*	• All samples were logged sufficiently for geological interpretation.

Criteria	JORC Code explanation	Commentary
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *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 • All samples are to be fully crushed, and either a split or the entire sample was pulverized to create a representative composite rock chip sample, depending on the laboratory's procedure. • The samples, with an average size of 2-5 kilograms, were collected for lithium presence confirmation rather than the assessment of grade in potentially non-representative and weathered samples.
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.*	• Analysis in by ALS Method ME-MS89L, which uses a sodium peroxide digestion with ICP finish, all by ALS in Belo Horizonte (Brazil). The method is considered a total technique. Multielement analysis is done by sodium peroxide digestion with ICP-MS finish with 52 elements reported. No standards duplicates or blanks accompany these initial samples that will not be used other than to indicate potentially interesting lithium contents of the variably weathered samples. • Checks of the analytical values of CRM's used by the laboratory against the CRM specification sheets were made to assess whether analyses were within acceptable limits.
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.*	• No verification will be undertaken for these initial samples that will not be used in any resource estimate. The samples are to determine the levels of Li and other valuable elements in grab samples
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.*	• All sample locations were measured using a handheld Garmin GPS using WGS84 and UTM coordinates - Coordinates provided in SIRGUS 2000 /UTM 23S • The accuracy is considered sufficient for a first pass sampling

Criteria	JORC Code explanation	Commentary
	• *Quality and adequacy of topographic control.*	program.
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 Drilling Conducted • No Sample Compositing has been applied.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• No Drilling Conducted
Sample security	• *The measures taken to ensure sample security.*	• Samples have been securely packed in polyweave backs and sealed with cable ties to mitigate contaminants or un-approved handling. • Samples were couriered to Belo Horizonte through a commercial courier.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No reviews or audit completed to date.

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.*	• PEC own's 100% exploration rights to 7 tenements located in Minas Gerais, Brazil, through its wholly owned subsidiary Perpetual Resources Do Brasil LTDA. • Itinga Project: 830489/2023 & 830490/2023 • Padre Paraiso: 830491/2023 & 830492/2023 • Ponte Nova: 832017/2023, 832018/2023 & 832019/2023
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• No prior formal exploration is known on any of the tenements however there has been some informal exploration and production by artisanal miners in and adjacent to Itinga, Ponte Nova & Padre Paraiso Projects.

Criteria	JORC Code explanation	Commentary
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The geological features of the areas consist of granite & sedimentary rocks from the Neoproterozoic era within the Araçuaí Orogen. These rocks have been intruded by fertile pegmatites rich in lithium, which have formed through the separation of magmatic fluids from peraluminous S-type granitoids and leucogranites associated with the Araçuaí Orogen.

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 activities are being reported.
		• The general location of visual occurrences photographed have been provided, in Appendix C, Table 1.
		• The co-ordinates of the rock chip samples has been provided with the relevant assay information in Appendix A.

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 analytical results are being reported. • No aggregation methods applied.
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 drilling activities are being reported.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being*	• Maps and images are included within body of text.

Criteria	JORC Code explanation	Commentary
	reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	
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.*	• No results presented. • All relevant and material exploration data for the target areas discussed, has been reported or referenced.
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 relevant and material exploration data for the target areas discussed, has been reported or referenced.
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.*	• Due to the sparse nature of sampling during due-diligence, further mapping and sampling will be conducted to inform future exploration activities. • Soils sampling underway in December 2023

Appendix C – Rock Type Descriptions

Table 1 – 2023 Sample Descriptions and Locations

Figure	Easting	Northing	Lithology	Commentary
2	846561	8109649	Quartz (35%), feldspars (45%), muscovite (10%), biotite (10%) and black tourmaline (10%)	Coarse grained Pegmatite exhibiting coarse tourmaline.
3	850345	8162957	Quartz (65%), feldspars (20%), suspected spodumene (10%) and Biotite (5%).	Weathered/oxidised pegmatite. Elongate green-grey crystals, interpreted to be spodumene.