

## **Discovery of a Fourth Pegmatite Trend at Isabella Lithium Project Builds Further Scale**

### **HIGHLIGHTS**

- Current exploration activities at the Isabella Lithium Project have identified a **new fourth pegmatite trend in the region (Trend 4)**, providing additional prospects for spodumene discovery in this expanding pegmatite field uncovered by Perpetual.
- Trend 4 is supported by **four newly identified artisanal workings** extending along the strike of a newly identified pegmatite, **located 650m from Trend 1 (grades up to 6.8% Li<sub>2</sub>O) and 300m from Trend 3 (grades up to 0.9% Li<sub>2</sub>O from weathered pegmatites)**, highlighting growing potential for spodumene–lithium mineralisation and widespread anomalies across a number of parallel stacked pegmatite trends (see Figure 2)<sup>1</sup>.
- Previous assay results have proven the Isabella Lithium pegmatite trends include **ultra-high grade spodumene**, with final assays from the initial sampling program returning **results of up to 6.8% Li<sub>2</sub>O<sup>2</sup>** (see Figure 3).
- **Four distinct mineralised corridors** now identified, with individual trends extending over 1 km each, while regional interpretation indicates potential **extensions of up to 3 km** when extrapolated at both ends.
- **Approval to conduct drilling activities at Isabella** was received by the Minas Gerais Environmental Agency (SEMAD) for the Isabella Project with a maiden program planned for 1H FY2025.
- PEC's Isabella license is located adjacent to two confirmed spodumene projects:
  - 0.5 km from Atlas Lithium's flagship Das Neves Project (NASDAQ: ATLX, Market Cap: US\$110 million), where an intersection of 1.47% Li<sub>2</sub>O over 95.2 meters was reported. This project recently received full operational permits for production.
  - <3 km from Sigma Lithium's (NASDAQ: SGML, Market Cap: US\$1.4 billion) Sao Jose Project, an advanced spodumene exploration project.
- Further rock chip assay results from the Isabella Lithium Project including Trend 4 are **expected by late February** and are anticipated to confirm new mineralisation along the recently identified trend.

**Perpetual Resources Ltd ("Perpetual" or "the Company") (ASX: PEC)** is pleased to provide an update on its ongoing active exploration program at the rapidly emerging Isabella Lithium Project, located in Brazil's prolific Lithium Valley.

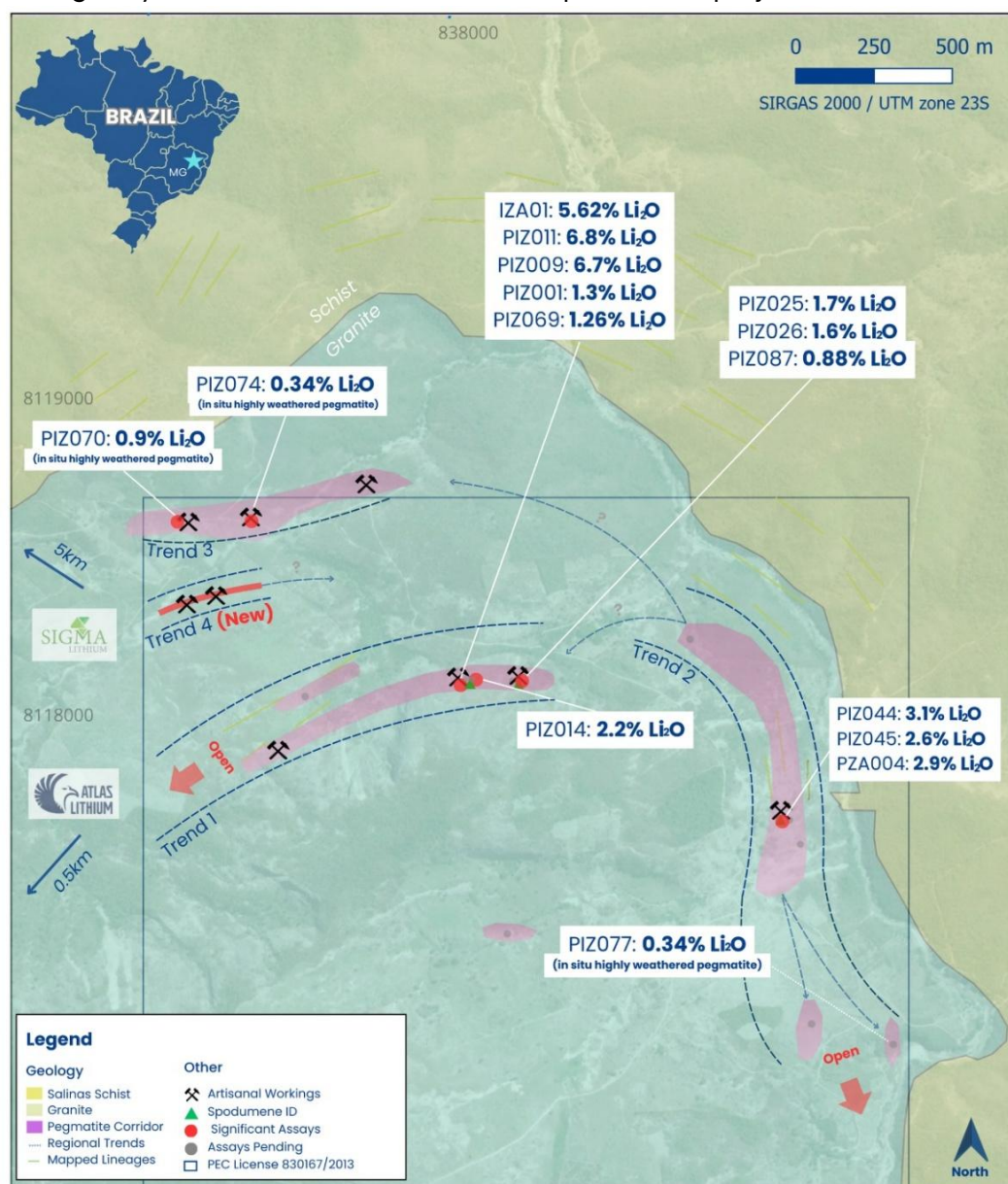
The current program is focused on an additional high-impact sampling campaign, targeting areas adjacent to known spodumene-bearing artisanal workings while

<sup>1</sup> Please refer to ASX Announcement dated 18<sup>th</sup> December 2024.

<sup>2</sup> Please refer to ASX Announcement dated 18<sup>th</sup> December 2024.



expanding grass-roots exploration across the license. The surface reconnaissance aims to further increase the mineralised footprint and advance existing targets, positioning the Isabella Project as a leading lithium exploration opportunity in Brazil's Lithium Valley, where it is strategically located near other advanced spodumene projects.



## Isabella Lithium Project

Exploration Update Jan 25

New Trend Identified

**Figure 1: Map showing confirmed mineralised pegmatite trends (1, 2 & 3) and new trend discovery (4) at the Isabella Lithium Project.<sup>3</sup>**

<sup>3</sup> For previously released results, please refer to ASX Announcement dated 18<sup>th</sup> December 2024.



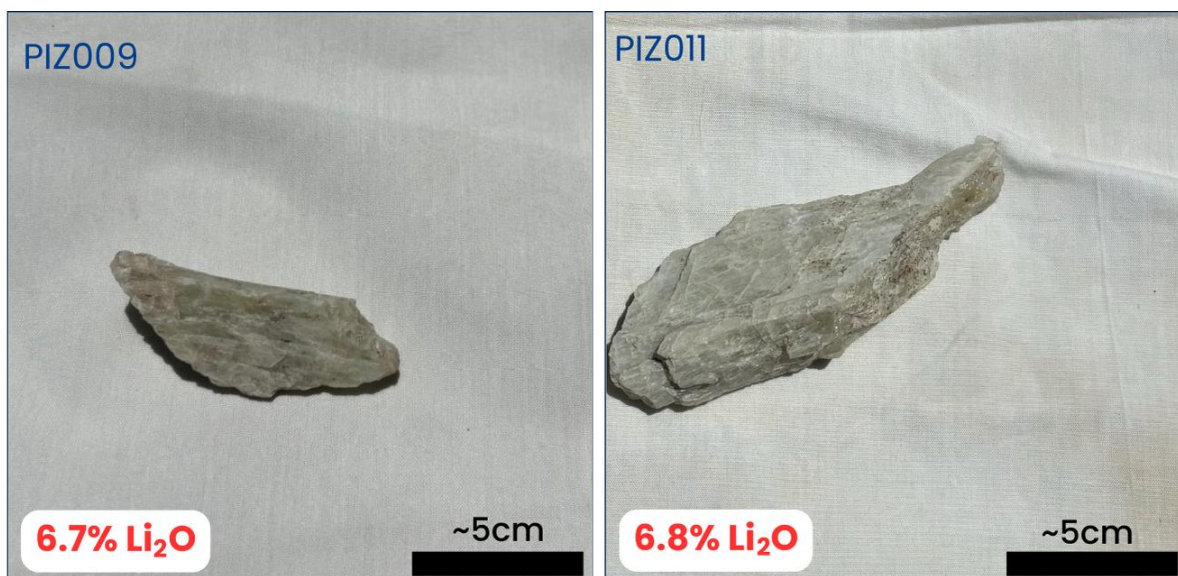
## New Pegmatite Trend Identified at Isabella Lithium Project

Fieldwork conducted in January 2025 has confirmed a newly identified pegmatite trend (Trend 4 – See Figure 1) running sub-parallel and proximal to previously reported high-grade mineralised spodumene-bearing pegmatite trends, which returned grades of up to 6.8% Li<sub>2</sub>O (see announcement 18<sup>th</sup> December 2024).



**Figure 2: Image A shows the newly discovered Trend 4 in relation to confirmed spodumene mineralisation, while Image B highlights artisanal workings defining the trend at the Isabella Lithium Project.**





**Figure 3: High-grade spodumene samples taken from Trend 1 at Isabella Project.<sup>4</sup>**

*(Refer Appendix A for rock type descriptions).*

This most recent discovery (Trend 4) adds to the existing three trends already discovery and continues to suggest potential for further expansion of the mineralised footprint at the project.

The newly identified trend was identified after follow-up sampling and step-out reconnaissance activities were undertaken in January. These efforts aim to expand the Isabella discovery which represents a green-fields discovery by Perpetual after only a limited period of ownership.

Preliminary field studies of Trend 4 has confirmed the presence of lithium-bearing minerals (Spodumene<sup>5</sup>), alongside accessory minerals such as Elbaite (Green tourmaline), Cleavelandite, feldspar and quartz.

All local pegmatite trends exhibit strong structural associations within the granite, with textures varying from isotropic to foliated, becoming more pronounced near contacts with schist. Areas with higher pegmatite occurrence are characterized by the alignment of biotite and muscovite, indicating laminar magmatic flow structures.

<sup>4</sup> Please refer to ASX Announcement dated 18<sup>th</sup> December 2024.

<sup>5</sup> In relation to the disclosure of visual mineralisation, the Company cautions that visual estimates of mineral presence should never be considered a proxy or substitute for laboratory analysis. See Compliance Statements.

## Further Assaying & Project Development

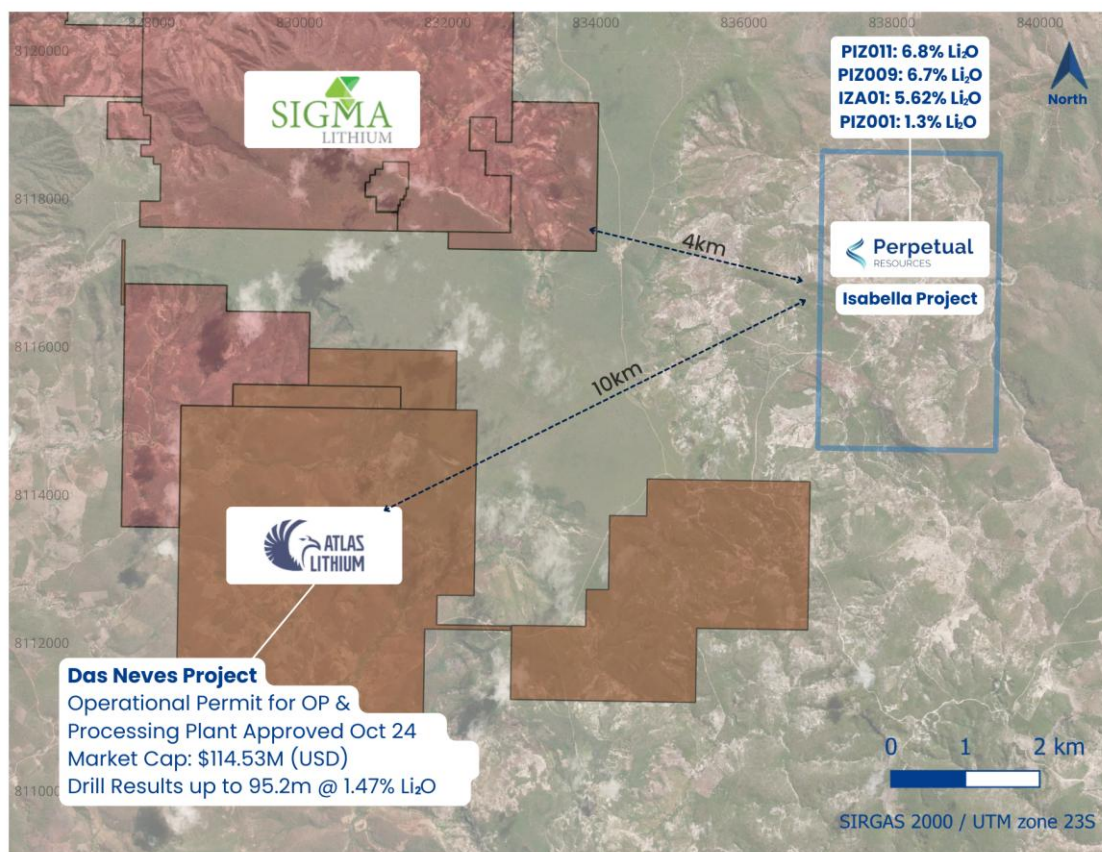
Fieldwork at the Isabella Lithium Project in January has been focused on delivering further tangible results to support Perpetual's plan for near-term drilling of the project. The current program also includes follow-up testing and re-sampling where necessary to validate and expand on the initial rock chipping campaign, with a view to a ranking of the multiple potential drill targets that now exist across the project area.

Negotiations with local landowners and drilling contractors are underway as drilling preparations continue. Follow-up assay results from January fieldwork are expected in approximately four weeks and are scheduled for release in late February.

## Isabella Strategically Positioned in Lithium Valley

The Isabella license is strategically located within Brazil's Lithium Valley, neighbouring some of the region's largest and most advanced hard-rock lithium producers and developers. It lies approximately 10 km from Atlas Lithium's recently approved 'Neves' mine and processing facility and is situated less than 4 km from Sigma Lithium's São José Project, which hosts significant historical lithium mining activities and ongoing advanced spodumene exploration.

The Isabella Project has confirmed high-grade lithium mineralisation, with rock-chip assays revealing **values up to 6.8%  $\text{Li}_2\text{O}$** . Refined structural mapping has interpreted multiple high-confidence spodumene-pegmatite trends extending up to 800m, delineated by artisanal workings targeting the pegmatites. Over 30 artisanal excavations have been identified, featuring substantial underground workings. The current exploration program is expected to delineate near-term drill targets, which are expected to be targeted by Perpetual in 1H 2025.



**Figure 3: Map showing proximity of the Isabella Lithium Project to nearby advanced development projects.<sup>6</sup>**

## Environmental Permit Approved

In December, Perpetual was granted an environmental exemption ("dispensa ambiental") by the Minas Gerais Environmental Agency (SEMAD) for the Isabella Project (License 830167/2013). This approval allows Perpetual to conduct drilling activities within the license area, representing a critical milestone. Local consultation is now underway as Perpetual has intent to undertake drilling of its maiden drill program in the first half of CY25.

## Next Steps

As mentioned above, Perpetual's in-country team is currently on-site conducting follow-up reconnaissance activities, including targeted high-impact rock chipping, further detailed geological mapping, and local community consultations. These efforts aim to expand the mineralised footprint, consolidate drill targets, and finalise preparations for a fully drill-ready license in early 2025.

**- ENDS -**

<sup>6</sup> <https://www.atlas-lithium.com/news/atlas-lithiums-neves-project-is-now-permitted/>

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

**KEY CONTACT**

Julian Babarczy

Executive Director

**E** [info@perpetualresources.co](mailto:info@perpetualresources.co)

### About Perpetual Resources Limited

Perpetual Resources Limited (Perpetual) is an ASX listed company pursuing exploration and development of critical minerals essential to the fulfillment of global new energy requirements.

Perpetual is active in exploring for lithium, rare earth elements (REE) and other critical minerals in the Minas Gerais region of Brazil, where it has secured approximately 12,500 hectares of highly prospective lithium and REE exploration permits, within the pre-eminent lithium (spodumene) and REE bearing region that has become known as Brazil's "Lithium Valley".

Perpetual also operates the Beharra Silica Sand development project, which is located 300km north of Perth and is 96km south of the port town of Geraldton in Western Australia.

Perpetual continues to review complementary acquisition opportunities to augment its growing portfolio of exploration and development projects consistent with its critical minerals focus.

#### Brazil Projects



#### Australian Project





## **COMPLIANCE STATEMENTS**

### **No new information**

Except where explicitly stated, this announcement contains references to prior exploration results, all of which have been cross-referenced to previous market announcements made by the Company. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements.

### **Reporting visual estimates of mineralisation**

Visual assessments of mineral abundance should never be viewed as a stand-in for laboratory analyses, especially when concentrations or grades are of primary economic importance. Visual estimates may also fail to provide any insight into impurities or detrimental physical properties that are pertinent to valuations.

### **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.

### **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.

## Appendix A – Rock Type Descriptions

**Table 1 – Sample Descriptions and Locations**

*Coordinate Presented in SIRGUS 2000 24S<sup>7</sup>*

Figure	Easting	Northing	Lithology	Commentary
1 (left)	199105	8118631	Spodumene ~100%	PIZ009 – GPS Coordinates indicate entry to the 50m tunnel.
1 (right)	199105	8118631	Spodumene ~100%	PIZ011 – GPS Coordinates indicate entry to the 50m tunnel.

<sup>7</sup> Multiple coordinates for rock chip samples were recorded from underground tunnels. As satellite systems cannot accurately determine positions below ground, the GPS coordinates provided correspond to the tunnel entry points.

## 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
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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 be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Current rock chip samples, weighing around 0.25–5 kilograms each, are being taken 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.</li> <li>The type of mineralisation being sought after is associated with pegmatite intrusions that host rare earth and LCT-pegmatites, and the likely sources are specific S-type Granites and Leucogranites</li> <li><b>Aspects of the determination of mineralisation that are Material to the Public Report:</b> Field mineral interpretations are conducted and agreed upon by multiple geologists and experienced gemmologists, with samples collected from in-situ walls exposed by artisanal activities and excavations. These interpretations should not be considered a proxy for confirmed mineralisation, as further laboratory assays are required for accurate and definitive results.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>No Drilling Completed</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to</li> </ul>	<ul style="list-style-type: none"> <li>No Drilling Completed</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>preferential loss/gain of fine/coarse material.</i>	
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All samples <u>are</u> logged sufficiently for geological interpretation.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>No Drilling Completed</li> <li>All samples <u>are to be</u> 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.</li> <li>The samples from the current program, with an average size of 2-5 kilograms, are being collected for lithium presence confirmation rather than the assessment of grade in potentially non-representative and weathered samples.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Samples <u>will be</u> assayed by ALS Belo Horizonte via ME-ICP89. Procedures are considered appropriate for Lithium and multi elemental analysis.</li> <li>Checks of the analytical values of CRM's <u>will be</u> by the laboratory against the CRM specification sheets were made to assess whether analyses were within acceptable limits.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> </ul>	<ul style="list-style-type: none"> <li>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> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	Li and other valuable elements in grab samples.
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Not Applicable – No locations disclosed.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>No Drilling Conducted</li> <li>Not Applicable</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No Drilling Conducted.</li> <li>Not Applicable</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples are securely packed in polyweave bags and sealed with cable ties to mitigate contaminants or un-approved handling.</li> <li>Samples travelled to Belo Horizonte with Exploration Manager, Allan Stephens.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No reviews or audit completed to date.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>PEC own's 100% exploration rights on Isabelle Project: 830167/2013 which comprises of 9.6km<sup>2</sup> located in Minas Gerais, Brazil, through its wholly owned subsidiary Perpetual Resources Do Brasil LTDA.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>No prior formal exploration is known however there has been some informal exploration and artisanal mining.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The geological features of the areas consist of granite &amp; 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.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>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"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling activities are being reported.</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling activities are being reported.</li> <li>No aggregation methods applied.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul style="list-style-type: none"> <li>No drilling activities are being reported.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Maps and images are included within body of text.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All relevant and material exploration data for the target areas discussed, has been reported or referenced.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk</li> </ul>	<ul style="list-style-type: none"> <li>This announcement contains information based on geological interpretations and observations made during the program. Additional relevant information will be reported and announced as it becomes</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	available to provide context for current and future programs.
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>Field work will continue with assays to be received and reviewed concurrently.</li> <li>Targets aim to be developed to further improve the understanding of the geology and mineralisation.</li> <li>Drill permitting and regulatory processes are underway.</li> </ul>