

# MONTAGUE FIELD PROGRAM IDENTIFIES ABUNDANT NEW PEGMATITE OUTCROPS

25 March 2024



## HIGHLIGHTS

- **Field program commenced at Montague lithium project**
- **Areas of interest defined using fractionation vectoring of previously mapped pegmatites**
- **Extensive new pegmatites mapped in first phase**

Premier1 Lithium Limited (**ASX:PLC**) (“**Premier1**” or the “**Company**”) is pleased to announce the commencement of fieldwork at the Montague lithium project. Premier1 has the rights to earn up to 80% of the lithium rights on the project in a farm-in announced on 5 May 2023 with Gateway Mining (**ASX:GML**).

The Montague Project is located approximately 70km north of Sandstone within the Gum Creek Greenstone Belt. The greenstone belt is dominated by a sequence of metamorphosed basalts and volcano-sedimentary rocks that are centred around the Montague granodiorite dome and bounded by monzogranitic to granodioritic intrusions to the east. A major NNW-SSE striking shear zone crosscuts the greenstone belt. Transported regolith and cover mask a significant portion of the area west of the shear zone.

The Montague project was previously recognised as a large target predicted by SensOre’s machine learning system. The target identified previously unrecognised lithium potential within a greenstone belt with no previous lithium exploration. Historical data reviewed prior to acquisition did show that the Geological Survey of Western Australia (GSWA) had mapped several pegmatites in the area.

Recent fieldwork by Premier1 has identified abundant new pegmatites along a mafic-ultramafic and siliclastic sequence of the greenstone belt up to 1km west of the main granite contact to the east. Potassium-Rubidium (K/Rb) ratios defined at least two areas of interest that showed high fractionation of below 40 that indicate prospectivity for Lithium-Caesium-Tantalum (LCT) pegmatites.

The recently commenced first phase of field mapping and sampling has identified numerous newly mapped pegmatites in these two areas of interest. Occasionally, green mica has been identified and a first set of samples has been sent to the lab. Feldspar samples were taken of all newly mapped pegmatites to determine fractionation trends for further target vectoring and identification of potential drill targets for H2 2024.

### **Richard Taylor, CEO of Premier1, commented:**

*“While we wait for assays from our first phase drilling at Abbotts North, the team has quickly mobilised to Montague which is showing considerable prospectivity based on initial surface mapping of pegmatites. Montague is shaping up to be every bit as exciting as the other projects in our portfolio.”*

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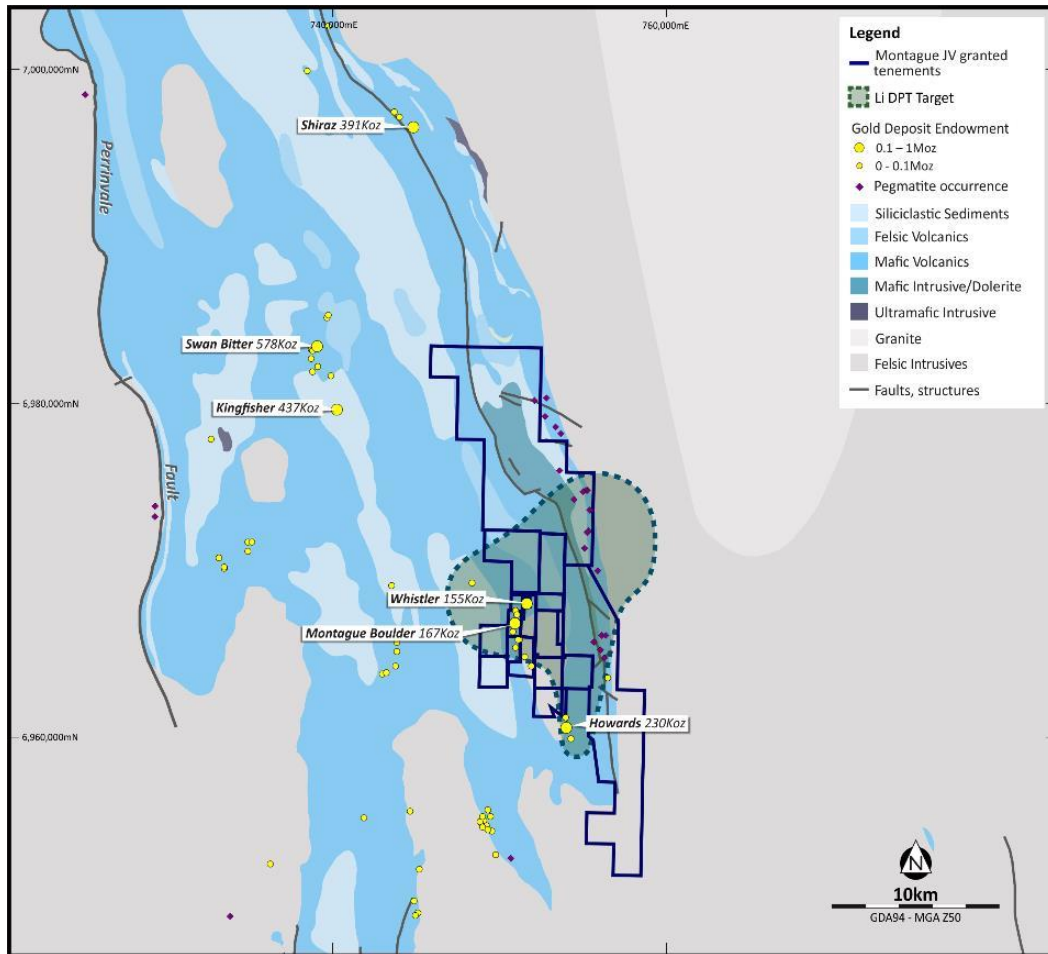


Figure 1: Regional geological map of the Montague project including identified ML targets.

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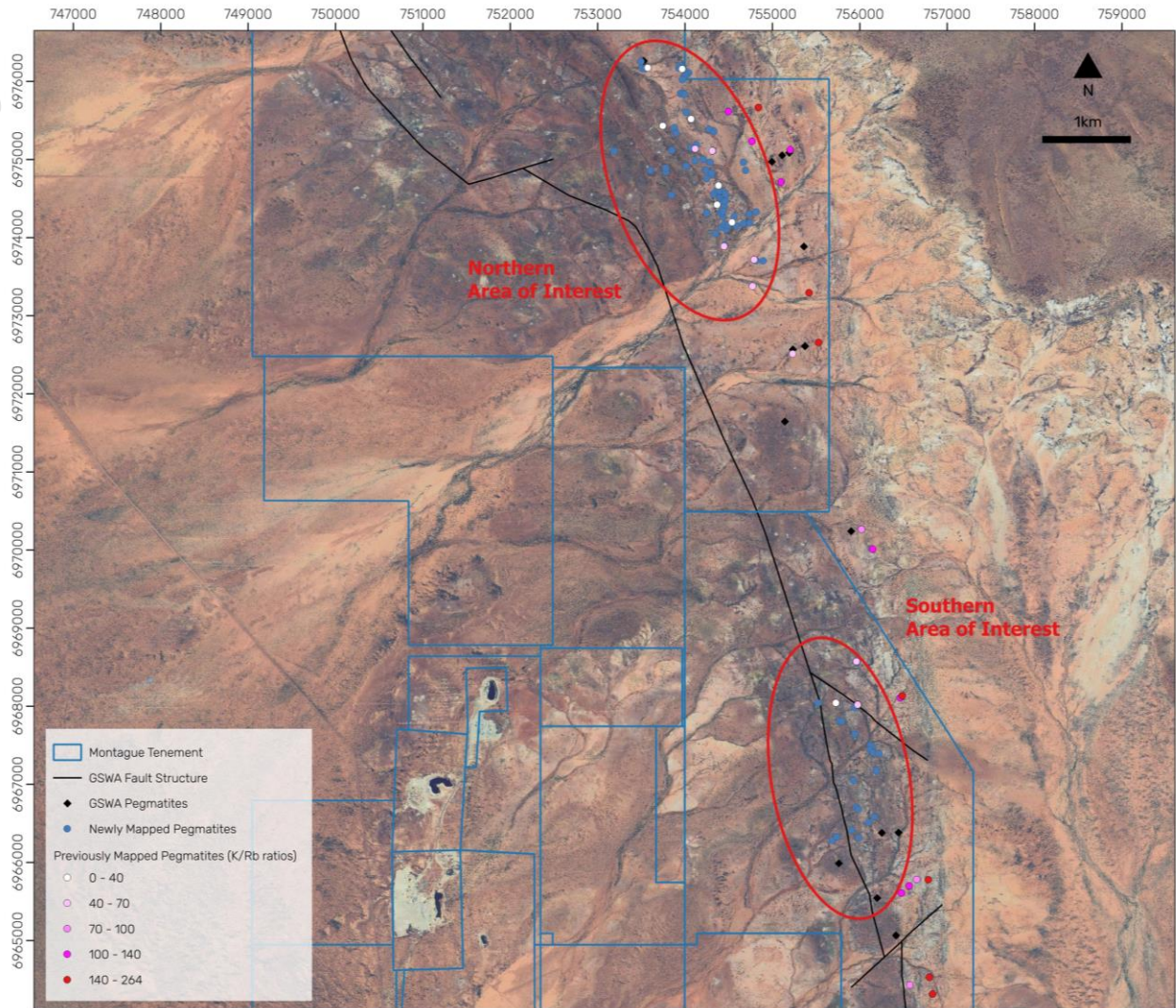


Figure 2: Newly mapped pegmatites within the Montague project area.

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*Figure 3: Newly mapped pegmatite outcrop in the field.*

This release was approved by the CEO.

#### ENQUIRIES

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## ABOUT PREMIER1 LITHIUM

Premier1 Lithium (**ASX:PLC**), is focused on tapping into the potential of Western Australia's renowned lithium reserves. Our strategic exploration approach in this world-class mining jurisdiction is driven by a commitment to uncover valuable resources efficiently and effectively. Our projects are situated in the heart of Western Australia's renowned greenstone belts, home to the world's largest lithium-bearing LCT pegmatite deposits. Abbotts North is a premier exploration project with outcropping lithium bearing pegmatites. Beyond Abbotts North, we have a pipeline of promising projects.

## COMPETENT PERSON'S STATEMENT

The information in this announcement that relates to Exploration Results and Mineral Resources is based on information compiled by Robert Rowe, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy (AusIMM) and is a Registered Professional Geoscientist in the field of Mineral Exploration with the Australian Institute of Geoscientists. Mr Rowe is a full-time employee and the Chief Operating Officer of SensOre. Mr Rowe has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Rowe consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

## JORC CODE<sup>1</sup> 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 not 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> </ul>	<ul style="list-style-type: none"> <li>Surface sampling reported in this ASX release were undertaken by Premier1 Lithium targeting lithium.</li> <li>Handheld GPS locations and sample photographs were taken at all samples sites by geologists in the field.</li> <li>Samples descriptions were completed by a Premier1 geologist on return from the field.</li> <li>Rock chip and/ or grab samples collected using hammer to obtain 5-10cm sized rock fragments from outcrops. Typical samples are collected from a 2-3m radius for approximately 1-3 kilograms.</li> <li>Rock chip samples were selected based on lithology within the locality and outcrop availability.</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 data reported in this ASX release.</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. 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.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling data reported in this ASX release.</li> </ul>
<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> </ul>	<ul style="list-style-type: none"> <li>Rock samples have been geologically logged for rock type weathering intensity and estimated mineralogy.</li> <li>Logging qualitative in nature.</li> <li>Samples and outcrop were photographed in the field.</li> <li>No measurement of sample width was recorded over the outcrop.</li> </ul>

Criteria	JORC Code Explanation	Commentary
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>The total length and percentage of the relevant intersections logged.</li> <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 subsampling 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>The sample preparation technique for all samples was completed by an accredited laboratory Intertek Genalysis. The techniques and practices are appropriate for the type and style of mineralisation.</li> <li>The samples have been sorted and dried. Primary preparation has been by crushing the whole sample. The samples have been split with a riffle splitter to obtain a sub-fraction which has then been pulverised in a vibrating pulveriser.</li> <li>The sample size, while small is considered to be adequate for a first pass evaluation of identified mineralisation style. Practical limitations of sample size to mitigate the coarse nature of pegmatites is difficult to obtain in a field environment.</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 were submitted to Intertek Genalysis in Maddington, Perth for the analytical techniques detailed below:</li> <li>Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Hf, Ho, In, K, La, Li, Lu, Mg, Mn, Mo, Na, Nb, Nd, Ni, Pb, P, Pr, Rb, Re, S, Sc, Sb, Se, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tl, Tm, U, V, W, Y, Yb, Zn, Zr: the sample(s) have been digested and refluxed with a mixture of Acids including Hydrofluoric, Nitric, Hydrochloric and Perchloric Acids. The analytes have been determined by Inductively Coupled Plasma (ICP) Mass Spectrometry.</li> <li>The laboratory is accredited and uses its own certified reference material. Repeat samples and Standards were analysed as part of the QAQC process.</li> <li>Standard OREAS 750 was added into the analysis at a frequency of 1:20.</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> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling intersections reported.</li> <li>Primary data is sent to a Premier1 geologist, who utilises an external contractor to import the data into the industry accepted DataShed database software. Assay results are merged when received electronically from the laboratory.</li> <li>No assays are reported in this release.</li> </ul>

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> <li>Discuss any adjustment to assay data.</li> </ul>	
<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>All samples have their location recorded using a handheld Garmin GPX64sx GPS unit to an indicative accuracy of &lt;5m.</li> <li>All sample locations are GDA94, MGA Zone 50 grid system.</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>Sampling was of an exploratory and reconnaissance nature and spacings are insufficient to establish continuity or define Resources.</li> <li>Rock chip samples were collected over a 0.5m to 3m area.</li> <li>Soil sampling was completed on a 50m x 500m pattern. Samples were spaced at 50m intervals on north south orientated lines. All historical data is located as per digital and scanned reports.</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>Samples were point sampled from within a specific lithology and so do not relate to the orientation of the mineralisation.</li> <li>Rock chip samples collected in this way have an inherent availability bias due to weathering.</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>All rock chip samples were packed in plastic bags, secured with cable ties and transported from the field by Premier1 personnel to Perth who transported the samples directly to the Intertek Genalysis laboratory in Maddington. The laboratory checks the physically received samples against an Premier1 generated sample submission list and reports back any discrepancies.</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 external or third-party audits or reviews have been completed.</li> </ul>

## SECTION 2: REPORTING OF EXPLORATION RESULTS

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



Criteria	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>The results reported in this announcement are on granted exploration licences E57/1005 and E57/1060.</li> <li>Exploration Ventures AI Pty Ltd have signed a Farm-in Agreement with Gateway Mining where EXAI can acquire up to 80% of the lithium rights.</li> <li>The tenements are believed to be in good standing. There are no known impediments to obtaining a license to operate, other than those set out by statutory requirements, which have not yet been applied for.</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 historical lithium exploration has been identified in historical records within the licence area. Past exploration was focused on gold and base metal exploration.</li> <li>No drilling targeting for lithium has been completed by Premier1 within the tenure.</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 prospect area is located approximately 70km north of Sandstone in Western Australia. Geologically, the prospect is located within the Gum Creek Greenstone Belt. The greenstone belt is dominated by a sequence of metamorphosed basalts and volcano-sedimentary rocks that are centred around the Montague granodiorite dome and bounded by monzogranitic to granodioritic intrusions to the east. A major NNW-SSE striking shear zone is crosscutting the greenstone belt. Transported regolith and cover mask a significant portion west of the shear zone.</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 collar</li> <li>Elevation of RL (Reduced Level – elevation above sea level in metres) of the drill collar</li> <li>Dip and azimuth of the hole</li> <li>Down hole length and interception depth</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>No drilling data reported.</li> </ul>

Criteria	Commentary	
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>○ Hole length</li> <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 aggregation or averaging has been applied to the reported data.</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>• The true orientation (dip and strike) of any mineralisation is not known, however as all data is point data no widths are 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>• Figures pertinent to the exploration stage of the project are included in Company reports and announcements.</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>• The accompanying document is a balanced report.</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 samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock</li> </ul>	<ul style="list-style-type: none"> <li>• No other substantial information is available other than that reported above.</li> </ul>

Criteria	Commentary	
	characteristics; potential deleterious or contaminating substances.	
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Further ground reconnaissance and sampling to determine the extent of the pegmatites and presence of lithium-bearing minerals.</li> <li>Further exploration will be based on results received.</li> </ul>

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