

15 August 2022

## 29.9m of Spodumene-Bearing Pegmatites Intercepted in step-out hole, extending known strike length

### Highlights

**Multiple spodumene-bearing pegmatite dykes intersected in step-out hole MF22-121, including a near surface intersection of 20.8m from 45.25m to 66.05m downhole<sup>1</sup>**

**Drill collar for MF22-121 steps out 50m to the east of any previous drilling**

**A total of 56 of 62 drill holes have intersected spodumene-bearing pegmatite**

**The lateral width of mineralised pegmatite at Mavis Lake project continues to extend to the east, providing confidence for increasing scale and potential resource**

Critical Resources Limited (**ASX:CRR**) ("Critical Resources" or "the Company") is pleased to advise the latest results from its current drilling campaign at the Company's 100 per cent-owned Mavis Lake Lithium Project ("the Project") in Ontario, Canada.

The spodumene-bearing pegmatite zones intersected in MF22-121 are approximately 50m to the east of previously announced MF22-116 and MF22-117 spodumene bearing pegmatite zones (refer to ASX Announcement 2 August 2022 and ASX Announcement 9 August 2022). These zones (as determined by visual assessment) illustrate further continuity of the lithium enriched zones confirmed in the Company's Phase 1 drilling program and subsequent/ongoing assay reporting.

Continued intersection of pegmatite provides support to the building geological assessment of significant pinching and swelling throughout the pegmatites and possibly a plunge trending towards the northwest. Understanding the geometries and plunges of the pegmatites will aid in further zone delineation as the Company continues to test the continuity to the east of Pegmatite 6, towards Pegmatite 18. Refer to table 1 for further details on holes MF22-119 to MF22-121.

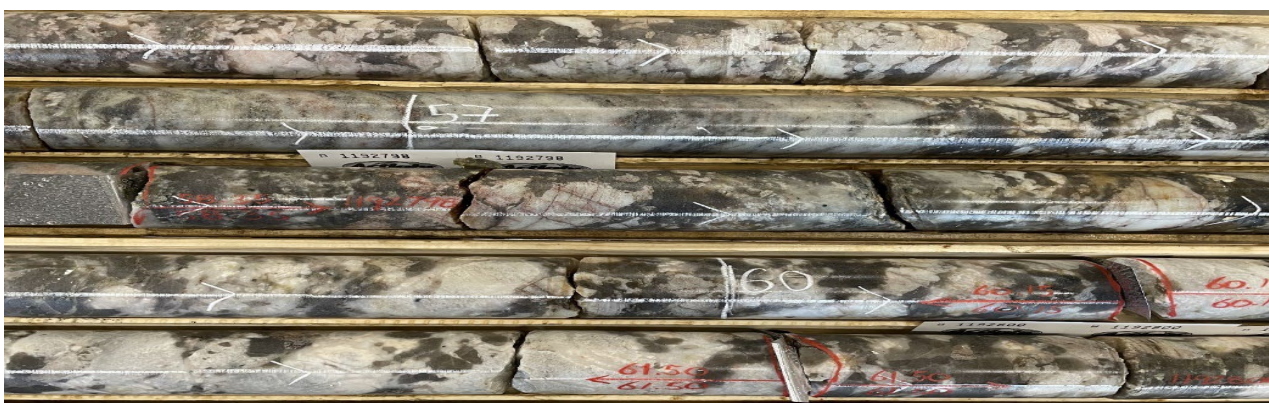


Figure 1: Close up of large white spodumene laths within drill hole MF22-121 from 45.25 to 66.05m downhole

<sup>1</sup> In relation to the disclosure of visual mineralisation, the Company cautions that visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analysis. Laboratory assay results are required to determine the widths and grade of the visible mineralisation reported in preliminary geological logging. The Company will update the market when laboratory analytical results become available. The reported intersections are down hole measurements and are not necessarily true width. Descriptions of the mineral amounts seen and logged in the core are qualitative, visual estimates only (they are listed in order of abundance of estimated combined percentages). Quantitative assays will be completed by Activation Labs in Dryden, Ontario

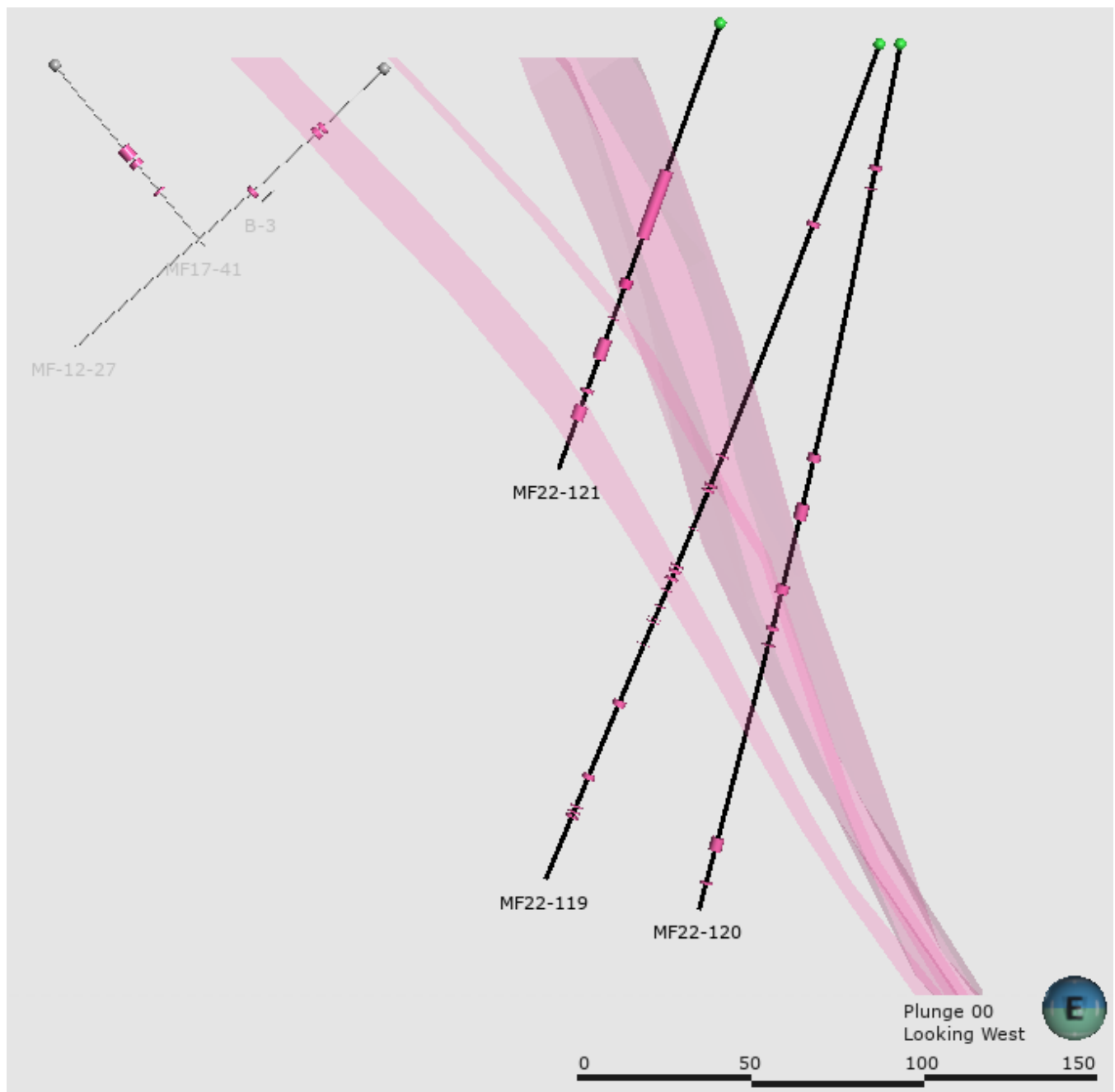


Figure 2: Cross-section, looking west, with projections of pegmatites (pink shapes) with recently drilled holes of MF22-119, MF22-120, and MF22-121 (measurements in metres)

Assay work is ongoing and will be released as received.

A total of 8,617m out of 10,000m of approved drilling has been completed to date, with the Company's primary focus to continue drilling an infill program, followed by testing the approximate 3km of potential strike length towards Pegmatite 18.

Immediate 50m infill drill-hole spacing will continue to test strike length and down-dip continuity to further delineate the spodumene-bearing pegmatites to underpin the development of a maiden JORC compliant resource.

**Critical Resources Chairman Robert Martin commented:**

*"To continually intercept lithium bearing pegmatites, along strike, in previously untested areas is an excellent outcome. These results support that the mineralised zones are continuing to the east, towards an area that has known and mapped pegmatites, providing a potential strike length up to 3km long.*

*The Company's confidence in the asset, as we work towards delineating a maiden JORC Compliant Resource, keeps building as we progress our phase two drilling program. Further, we expect the next round of assay results from the Phase one program imminently.*

*Due to the continued pegmatite intercepts, the Company is now considering fast-tracking a phase three drilling program."*

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

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**Investor Inquiries**

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**EXPLORATION WORK – COMPETENT PERSONS STATEMENT**

The information in this ASX Announcement that relates to Exploration Results is based on information compiled by Troy Gallik (P. Geo), a Competent Person who is a Member of the Association of Professional Geoscientists of Ontario. Troy Gallik is a full-time employee of Critical Resources Ltd. Troy Gallik 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". Troy Gallik consents to the inclusion in this ASX Announcement of the matters based on his information in the form and context in which it appears.

**FORWARD LOOKING STATEMENTS**

This announcement may contain certain forward-looking statements and projections. Such forward looking statements/projections are estimates for discussion purposes only and should not be relied upon. Forward looking statements/projections are inherently uncertain and may therefore differ materially from results ultimately achieved. Critical Resources Limited does not make any representations and provides no warranties concerning the accuracy of the projections and disclaims any obligation to update or revise any forward looking statements/projects based on new information, future events or otherwise except to the extent required by applicable laws. While the information contained in this report has been prepared in good faith, neither Critical Resources Limited or any of its directors, officers, agents, employees or advisors give any representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this announcement.

**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.

**ABOUT THE MAVIS LAKE PROJECT**

The Mavis Lake Lithium Project is 19km east of the town of Dryden, Ontario and in close proximity to the Trans-Canada highway and railway, major transportation arteries which link larger cities such as Thunder Bay, Ontario, to the southeast and Winnipeg, Manitoba, to the west. The region boasts excellent infrastructure with hydropower located a few kilometres to the southwest of the project. The region is an emerging lithium province with multiple projects located nearby.

**ABOUT CRITICAL RESOURCES LIMITED**

Critical Resources is an ASX listed, base metals and lithium exploration and development company headquartered in Perth, Western Australia. The Company is focussed on providing shareholder value through the exploration, development and advancement of the Company's base metals asset in NSW, copper asset in Oman and its suite of hard rock lithium assets in Ontario, Canada



## Appendix 1: Key Results



Figure 3: Significant zone of spodumene-bearing pegmatite zone of MF22-121 from 45.25 to 66.05 metres downhole



Figure 4: Significant zone of spodumene-bearing pegmatite zone of MF22-121 from 45.25 to 66.05 metres downhole



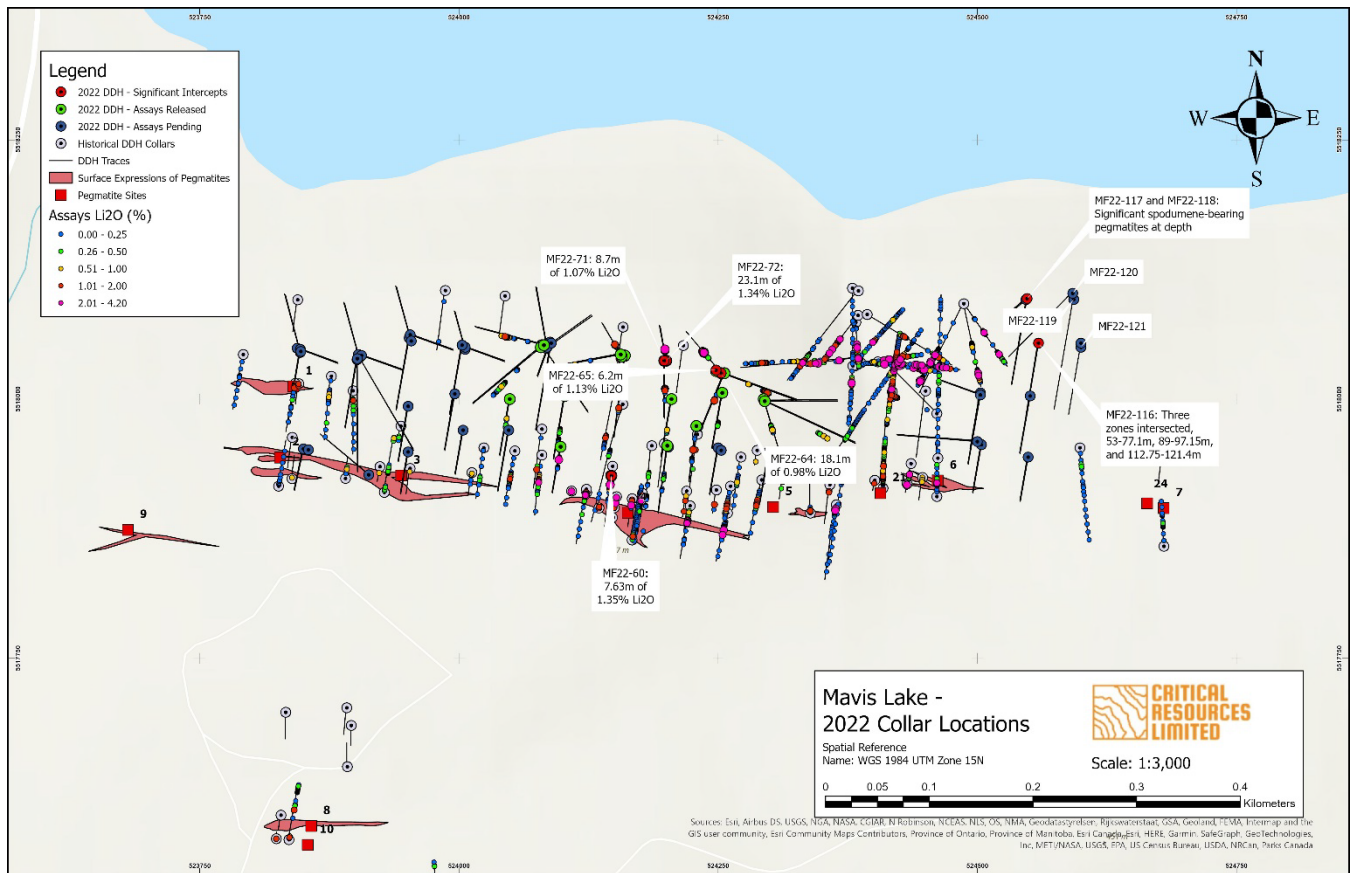


Figure 5: Plan map of Mavis Lake Drilling including highlights from the 2022 drill program

Table 1: Recent Significant Visual Estimates of Exploration Results

Hole ID	From	To	Length	Visual Estimate of Spodumene
MF22-119	54.7	56.2	1.5	17%
and	204.5	205.85	1.35	25%
MF22-120	122.6	124.8	2.2	15%
and	137.6	142.2	4.6	19%
and	161.9	164.4	2.5	5%
and	238.2	242.1	3.9	40%
MF22-121	45.25	66.05	20.8	30%
and	78.6	81.4	2.8	27%
and	97	103.3	6.3	35%

Table 2: Drill Hole Summary

Hole ID	Date Drilled		UTM Zone 15N (NAD 83)			Collar Orientation		Metres Drilled	
	Start Date	End Date	Easting	Northing	Elevation (m)	Az	Dip	Casing Depth (m)	End Depth (m)
MF22-119	August 2, 2022	August 5, 2022	524593	5518096	434	190	-70.2	3	260
MF22-120	August 5, 2022	August 7, 2022	524592	5518102	434	224.8	-75.1	3	260
MF22-121	August 8, 2022	August 9, 2022	524600	5518050	440	190.1	-70.1	3	137

**Cautionary Note:**

The Company stresses that the reported visual estimated percentages in Table 1 above relate specifically to the abundance of spodumene logged in the drill core and is not estimated lithium grade for the interval.

In relation to the disclosure of visual mineralisation, the Company cautions that visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analysis. Laboratory assay results are required to determine the widths and grade of the visible mineralisation reported in preliminary geological logging. The Company will update the market when laboratory analytical results become available.

The reported intersections are down hole measurements and are not necessarily true width. Descriptions of the mineral amounts seen and logged in the core are qualitative, visual estimates (they are listed in order of abundance of estimated combined percentages). Quantitative assays will be completed by Activation Labs in Dryden, Ontario.

## Appendix 2: JORC Table 1 – MF22-119 to MF22-121 Exploration Results

### 2.1 Section 1: Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)

Criteria	JORC-Code Explanation	Commentary
<b>Sampling techniques</b>	<i>Nature and quality of sampling (e.g., 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.</i>	<ul style="list-style-type: none"> <li>• Oriented NQ core was cut in half using a diamond saw, with a half core sent for assay and half core retained.</li> <li>• No other measurement tools other than directional survey tools have been used in the holes at this stage.</li> </ul>
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	<ul style="list-style-type: none"> <li>• Oriented core was placed V-rail and a consistent cutline drawn along core to ensure cutting (halving) of representative samples</li> <li>• Core sample interval was based in logged mineralisation</li> </ul>
	<i>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 (e.g., '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 (e.g., submarine nodules) may warrant disclosure of detailed information.</i>	<ul style="list-style-type: none"> <li>• Determination of mineralisation has been based on geological logging and photo analysis.</li> <li>• Diamond Core drilling was used to obtain 3m length samples from the barrel which are then marked in one metre intervals based on the drillers core block measurement.</li> <li>• Assay samples will be selected based on geological logging boundaries or on the nominal metre marks.</li> <li>• Samples will be dispatched to an accredited laboratory (ActLabs) in Dryden, Ontario, Canada for sample preparation and shipment to analysis</li> </ul>
<b>Drilling techniques</b>	<i>Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., 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).</i>	<ul style="list-style-type: none"> <li>• NQ2 diamond double tube coring by Cyr EF-50 rig was used throughout the hole.</li> <li>• Core orientation was carried out by the drilling contractor.</li> </ul>

Criteria	JORC-Code Explanation	Commentary
<b>Drill sample recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	<ul style="list-style-type: none"> <li>• Lithological logging, photography</li> <li>• Core samples were measured with a standard tape within the core trays. Length of core was then compared to the interval drilled, and any core loss was attributed to individual rock units based on the amount of fracturing, abrasion of core contacts, and the conservative judgment of the core logger. Results of core loss are discussed below.</li> </ul>
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	<ul style="list-style-type: none"> <li>• Experienced driller contracted to carry out drilling.</li> <li>• In broken ground the driller produced NQ core from short runs to maximise core recovery.</li> <li>• Core was washed before placing in the core trays.</li> </ul>
	<i>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.</i>	<ul style="list-style-type: none"> <li>• Core was visually assessed by professional geologists before cutting to ensure representative sampling.</li> <li>• See “Aspects of the determination of mineralisation that are Material to the Public Report” above.</li> </ul>
<b>Logging</b>	<i>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.</i>	<ul style="list-style-type: none"> <li>• Core samples were not geotechnically logged.</li> <li>• Core samples have been geologically logged to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> </ul>
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	<ul style="list-style-type: none"> <li>• The core logging was qualitative in nature.</li> <li>• All core was photographed</li> </ul>
	<i>The total length and percentage of the relevant intersections logged.</i>	<ul style="list-style-type: none"> <li>• Total length of the MF22-119 was 260m 100% of the relevant intersections were logged.</li> <li>• Total length of the MF22-120 was 260m 100% of the relevant intersections were logged.</li> <li>• Total length of the MF22-121 was 137m 100% of the relevant intersections were logged.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all cores taken.</i>	<ul style="list-style-type: none"> <li>• No sampling completed at this stage</li> </ul>
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	



Criteria	JORC-Code Explanation	Commentary
	<p><i>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.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	
<b>Quality of assay data and laboratory tests</b>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><i>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.</i></p> <p><i>Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.</i></p>	<ul style="list-style-type: none"> <li>• No assays have been conducted for this drill program at this time. Techniques will be updated when assays are completed.</li> </ul>
<b>Verification of sampling and assaying</b>	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data.</i></p>	<ul style="list-style-type: none"> <li>• No independent verification completed at this stage</li> <li>• No holes are twins of previous holes</li> <li>• Core measured, photographed and logged by geologists. Digitally recorded plus back-up records.</li> <li>• No assay data received at this stage</li> </ul>
<b>Location of data points</b>	<p><i>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.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<ul style="list-style-type: none"> <li>• Drill collars recorded with Garmin GPS that has an accuracy in the order of <math>\pm 3</math> metres for location. A registered surveyor will be contracted to accurately survey all drill collars at completed of drill program.</li> <li>• WGS 1984 UTM Zone 15N</li> <li>• No specific topography survey has been completed over the project area</li> </ul>
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	

Criteria	JORC-Code Explanation	Commentary
	<p>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.</p> <p>Whether sample compositing has been applied.</p>	<ul style="list-style-type: none"> <li>• Not relevant to current drilling.</li> <li>• Not relevant to current drilling.</li> <li>• No sample compositing has been applied.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<p>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</p> <p>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.</p>	<ul style="list-style-type: none"> <li>• The orientation of the mineralisation is unknown. The drilling program is aimed at determining orientation of the mineralisation.</li> <li>• If orientation of mineralisation is known or thought to be known, drill holes are planned to intersect at an appropriate angle relative to true width of the mineralisation. Intercepts with mineralisation released are given as downhole widths, not true widths unless true widths are stated</li> <li>• It is uncertain whether sampling bias has been introduced, or whether the thickness drilled is a true thickness.</li> </ul>
<b>Sample security</b>	The measures taken to ensure sample security.	<ul style="list-style-type: none"> <li>• Core samples will be stored the Dryden core yard before delivery to ActLabsGroups in Dryden, Ontario for analysis.</li> </ul>
<b>Audits or reviews</b>	The results of any audits or reviews of sampling techniques and data.	<ul style="list-style-type: none"> <li>• Not undertaken at this stage</li> </ul>

## 2 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>	<p>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.</p> <p>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.</p>	<ul style="list-style-type: none"> <li>• The Mavis Lake Lithium Project consists of 189 unpatented Single Cell Mining Claims and six separate surface leases which secure the surface rights of the land required for the Project footprint.</li> <li>• All claims and leases are active and in good standing. The leases have a term of 21 years and are not set to expire until 2032, at which time they can be renewed for an additional 21 years if required.</li> </ul>

Criteria	JORC-Code Explanation	Commentary																												
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul style="list-style-type: none"><li>• Previous exploration has been conducted by a number of parties including Lun-Echo Gold Mines Limited (1956), Selco Mining Corporation (1979-1980), Tantalum Mining Corporation of Canada Limited (1981-1982), Emerald Field Resources (2002), International Lithium Corp (2006-2021) and Pioneer Resources Limited/Essential Metals Limited (2018-2021).</li></ul>																												
Geology	Deposit type, geological setting, and style of mineralisation.	<ul style="list-style-type: none"><li>• The Fairservice and Mavis Lake Prospects host zoned pegmatites that are prospective for lithium and tantalum</li></ul>																												
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:	<table><tr><th>Hole ID</th><th>Easting</th><th>Northing</th><th>RL</th><th>Azimuth</th><th>Dip</th><th>To Depth</th></tr><tr><td>MF22-119</td><td>524593</td><td>5518096</td><td>434</td><td>190</td><td>-70.2</td><td>260</td></tr><tr><td>MF22-120</td><td>524592</td><td>5518102</td><td>434</td><td>224.8</td><td>-75.1</td><td>260</td></tr><tr><td>MF22-121</td><td>524600</td><td>5518050</td><td>440</td><td>190.1</td><td>-70.1</td><td>137</td></tr></table>	Hole ID	Easting	Northing	RL	Azimuth	Dip	To Depth	MF22-119	524593	5518096	434	190	-70.2	260	MF22-120	524592	5518102	434	224.8	-75.1	260	MF22-121	524600	5518050	440	190.1	-70.1	137
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	easting and northing of the drill hole collar	*Collar coordinates are in WGS 1984 UTM Zone 15N																												
	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	<ul style="list-style-type: none"><li>• Not relevant</li></ul>																													



Criteria	JORC-Code Explanation	Commentary
	<i>should clearly explain why this is the case.</i>	
<b>Data aggregation methods</b>	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	<ul style="list-style-type: none"> <li>• <i>Uncut</i></li> <li>• <i>All aggregate intercepts detailed on tables are weighted averages.</i></li> <li>• <i>None used</i></li> </ul>
	<i>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.</i>	
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	
<b>Relationship between mineralisation widths and intercept lengths</b>	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	<ul style="list-style-type: none"> <li>• <i>True width not currently known. All lengths are down-hole lengths and not true width.</i></li> <li>• <i>The precise geometry is not currently known but is being tested by the planned drilling, with diamond drill hole azimuths designed to drill normal to the interpreted mineralised structure.</i></li> <li>• <i>Down-hole length reported, true width not known.</i></li> </ul>
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	
	<i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').</i>	
<b>Diagrams</b>	<i>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.</i>	<ul style="list-style-type: none"> <li>• <i>The drilling is aimed at clarifying the structure of the mineralisation.</i></li> </ul>
<b>Balanced reporting</b>	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.</i>	<ul style="list-style-type: none"> <li>• <i>Representative reporting of all relevant grades is provided in tables to avoid misleading reporting of Exploration Results.</i></li> </ul>

Criteria	JORC-Code Explanation	Commentary
<b>Other substantive exploration data</b>	<i>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.</i>	<ul style="list-style-type: none"> <li>• Overview of exploration data leading to selection of drill targets provided.</li> <li>• There were no deleterious elements identified.</li> </ul>
<b>Further work</b>	<i>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	<ul style="list-style-type: none"> <li>• Further drilling underway to confirm, infill and extend previous drilling conducted by various parties, bringing total drilling by the Company to 10,000m</li> </ul>