

6 July 2023

Spectacular 74.4 metre Intersept of Continuous Spodumene Mineralisation at Mavis Lake

Highlights

- Outstanding start to the summer drilling program at Mavis Lake, with the first drill hole intersecting a massive 74.4 metres of continuous spodumene-bearing pegmatite
- Diamond drill hole MF23-207 intersected 74.4m of pegmatite with an average estimate of 20% spodumene
- The intercept is outside the current Mineral Resource envelope and is expected to result in a meaningful increase in total Resource tonnage
- Extension drilling will continue throughout the next few months to support a future Resource upgrade
- Assays are expected back from the lab in 6 to 8 weeks
- Planning continues in order to drill test the highly prospective Gullwing and Tot Lakes pegmatites which are contiguous to the Mavis Lake tenements

Lithium development company Critical Resources Limited **ASX:CRR** ("Critical Resources" or "the Company") is pleased to announce that the first drill hole completed as part of its summer 2023 resource extension drilling program, has intersected **74.4 meters of spodumene-bearing pegmatite¹** at the Company's 100%-owned Mavis Lake Lithium Project in Ontario, Canada.

The drill hole which was designed to extend beyond the known mineralisation area that defines the maiden 8Mt lithium Mineral Resource Estimate ("MRE") at Mavis Lake (refer ASX Announcement 5 May 2023)

The intercept is the widest interval of spodumene mineralisation recorded to date, highlighting the Project's significant upside potential. Full exploration results are provided in Appendix 1.

¹ 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 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 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. Refer to Cautionary Note – Visual Estimates



Critical Resources Managing Director, Alex Cheeseman said:

"Extensional and in-fill drilling has been carefully planned as we step off known, modelled mineralisation to upgrade and expand the maiden Resource however, the size of this intercept has well and truly taken Mavis Lake to a new level."

"The intercept, along with other recently released exploration results are not currently included in our 8.0Mt Resource. Targeted drilling will continue over the coming months and we are truly excited as to the resource potential of this world class asset."

"We are also working concurrently to test our Gullwing and Tot Lake pegmatites, where we have 8km of pegmatite clusters to test which can potentially add additional resources."

Spodumene Mineral Percentage Estimates¹

The intercept has been recorded on the western area of the Mavis Lake Main Zone. Figure 1 shows approximately 74.4m of continuous spodumene mineralisation from drillhole MF23-207, with cross section shown in Figure 2. Drillhole summary provided in table 1, with visual estimates of spodumene mineralisation shown in Table 2.

MF23-207 was designed to test the northern extents of the Main Zone for the purposes of both in-fill and extending the mineralisation. This spodumene-bearing pegmatite intercept is ~40m away from previous intercepts and will continue to expand the mineralisation shapes further down-dip.

The pinching and swelling of the Main Zone is complex and warrants further in-fill and extensional drilling to determine the orebody's true geometry. The true thickness of this intercept has yet to be determined due to the irregular contact angles and the location of the pegmatite within the project mineral shapes from the most recent MRE. The significant down-hole width is expected to contribute towards additional tonnage for a MRE upgrade.

Spodumene mineralisation is persistent throughout the pegmatite, averaging approximately 20%, with up to meter-scale highs of over 50% of large, white-grey spodumene laths. The mineralisation appears similar to previously drilled high-grade Li₂O intercepts. The assay results will determine the actual lithium grade of this intercept, and are expected to be received in 6-8 weeks.

Table 1 – Drill Hole Summary

Hole ID	Date Drilled		UTM Zone 15N (NAD83)			Collar Orientation		Metres Drilled	
Hole ID	Start Date	End Date	Easting	Northing	Elevation	Az	Dip	Casing Depth	End Depth
MF23-207	28-June-23	03-July-23	524005	5518044	432	14.7	-75.1	3	365

Table 2 – Spodumene Intercept Main Zone¹

Drill Hole ID	From	To	Length	Visual Estimate of Spodumene
MF23-207	176.15	250.55	74.4	20%



Figure 1 – Approximately 74.4m of continuous spodumene mineralisation from drill hole MF23-207, intercepted from 176.15m to 250.55m down-hole

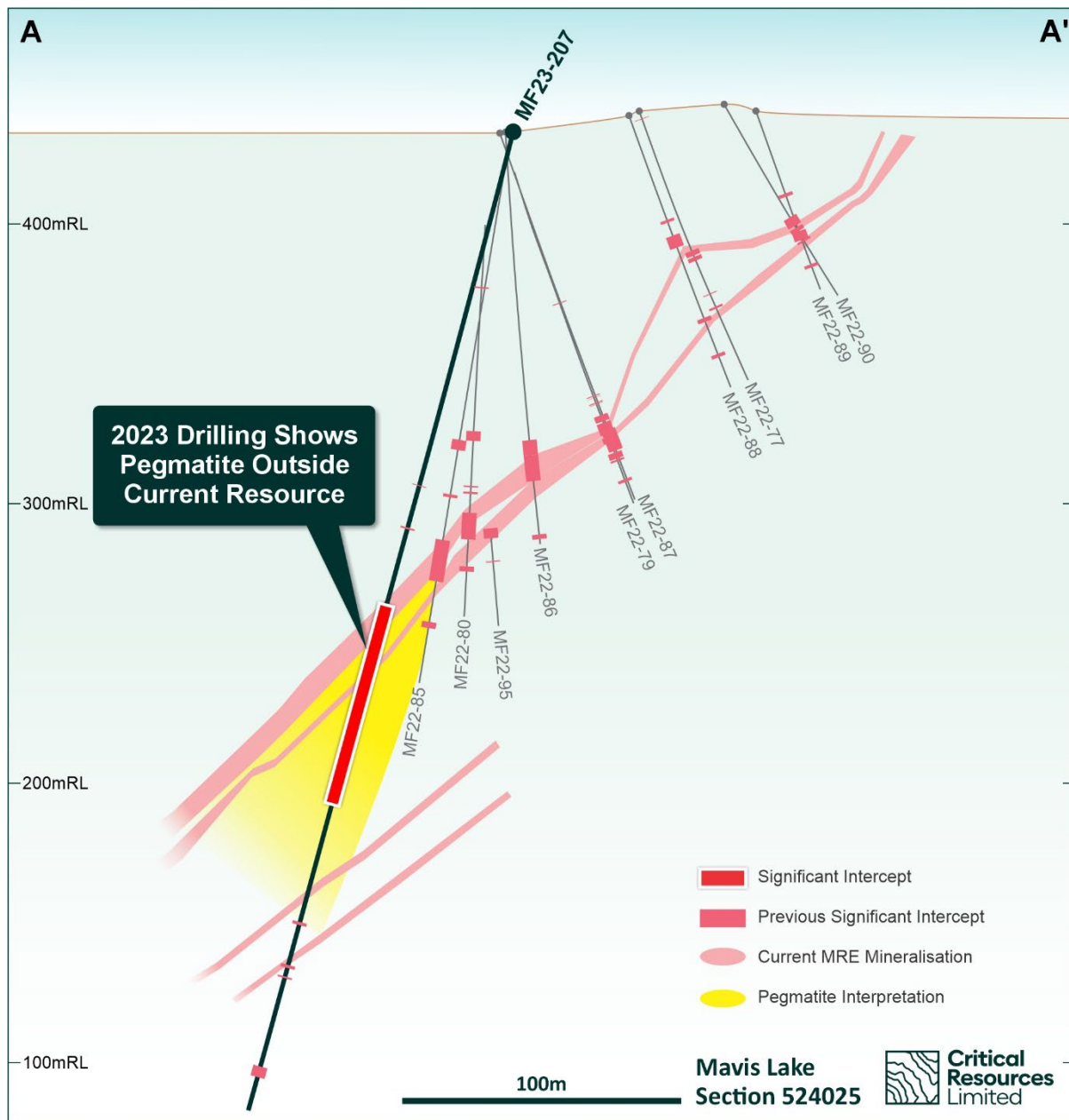


Figure 2 – Cross Section of Drill hole MF23-207, in context to previous drilling

Future Work

Immediate drilling will continue to test proximal to MF23-207 to gain an understanding for the large swell area within the Main Zone. More drilling will test laterally and to the north for resource expansion.

Future in-fill drilling will test the up-dip extents of this swell area. Drilling will also test for more lower stacks of mineralised pegmatites that have been previously intersected.

High priority resource expansion at the Main Zone includes testing pegmatite 9, which has never been drill tested. Priority targets are all located in the western portion of the Main Zone.



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

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ABOUT CRITICAL RESOURCES LIMITED Critical Resources is advancing and developing critical metals projects for a decarbonised future. The Company holds a suite of lithium prospects across Ontario, Canada, including Mavis Lake, Graphic Lake, Plaid and Whiteloon Lake. The Company's other projects include a copper project in Oman, and a base metals project in Halls Peak NSW, Australia. The Company's primary focus is the rapid development of its flagship Mavis Lake Lithium Project. Mavis Lake is an advanced exploration project with near-term development potential. The Company completed over 19,500m of drilling in 2022 and has commenced another significant drilling program in 2023. In early 2023, Critical Resources released its maiden JORC Code 2012 Compliant Inferred Mineral Resource Estimate (MRE) for Mavis Lake – making Critical Resources just one of two ASX-listed companies with a JORC Code 2012 compliant mineral resource in Ontario. In parallel, the Company has also commenced initial studies that will underpin the transition from explorer to developer.

CAUTIONARY NOTE – VISUAL ESTIMATES The Company stresses that the reported visual estimated percentages in Table 1 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 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. 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 Lab.

COMPETENT PERSONS STATEMENT The information in this ASX Announcement that relates to Exploration Results is based on information compiled by Mr. 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. Mr. 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". Mr. Gallik consents to the inclusion in this Announcement of the matters based on his information in the form and context in which it appears.

This announcement contains information regarding the Mavis Lake Mineral Resource Estimate extracted from ASX market announcement dated 5 May 2023 and reported in accordance with the 2012 JORC Code and available for viewing at criticalresources.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in any original announcement and that all material assumptions and technical parameters underpinning the estimates in the original market announcement continue to apply and have not materially changed. This document contains information on the Mavis Lake Lithium Project extracted from ASX market announcements reported in accordance with the 2012 JORC Code and available for viewing at www.criticalresources.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in any original ASX market announcement. ASX announcements pertaining to key assays are 16 June 2022, 21 July 2022, 17 August 2022, 13 September 2022, 28 September 2022, 31 October 2022, 27 March 2023 and 27 June 2023.

This announcement contains information relating to Exploration Results in respect of the Gullwing-Tot Lakes Property extracted from ASX market announcements dated 20 December 2022 and 18 May 2023 and reported by the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (2012 JORC Code) and available for viewing at criticalresources.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in any original ASX market announcement.



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.

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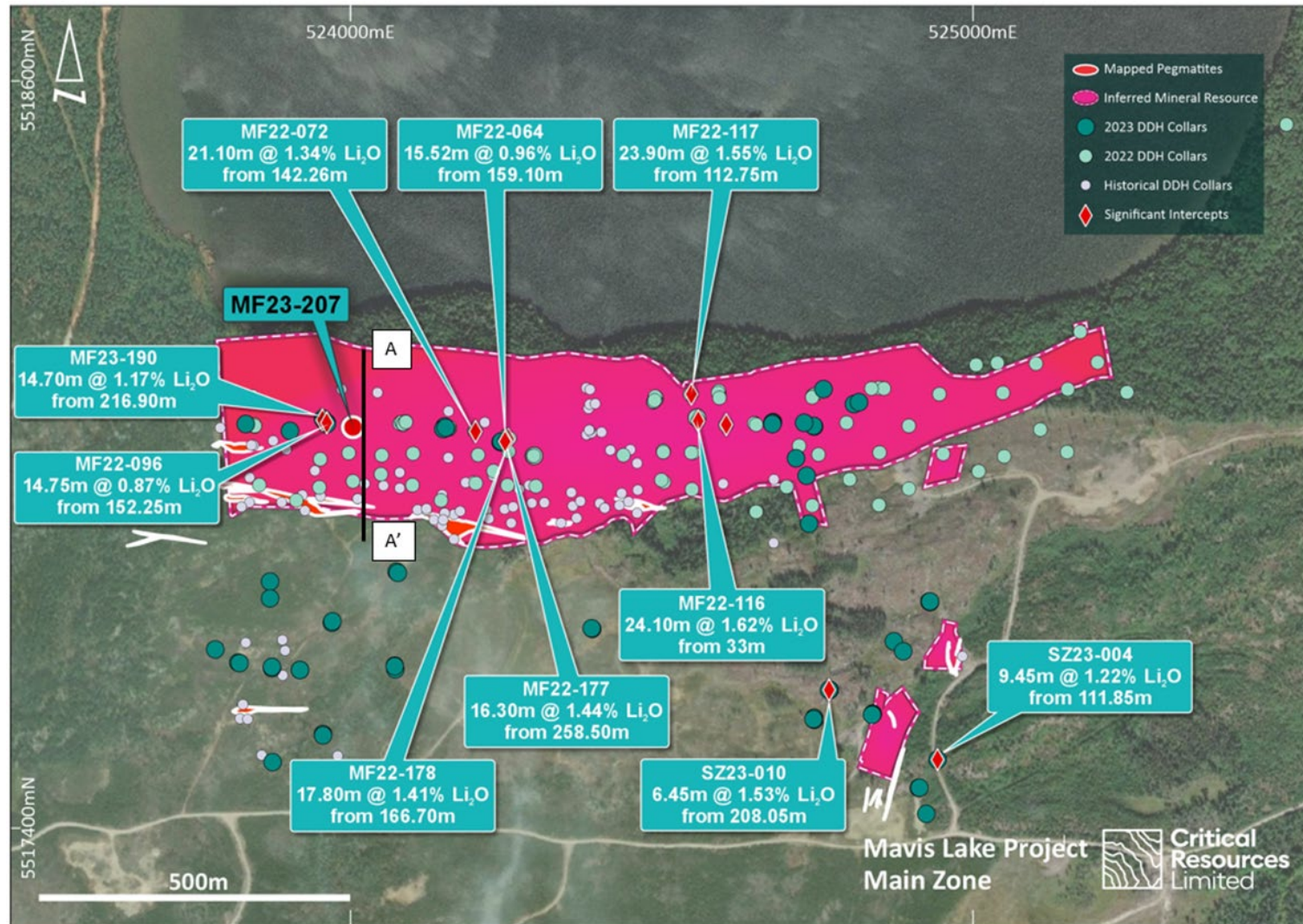


Figure 3 - Plan Map of Mavis Lake with Figure 2 cross section reference points identified



JORC Table 1 – MF23–207 Exploration Results

Section 1: Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC-Code Explanation	Commentary
Sampling techniques	<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"> • Oriented NQ core was cut in half using a diamond saw, with a half core sent for assay and half core retained. • No other measurement tools other than directional survey tools have been used in the holes at this stage.
	<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"> • Oriented core was placed V-rail and a consistent cut-line drawn along core to ensure cutting (halving) of representative samples.
	<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"> • Sampling is conducted based on core logging, 100% of drill hole core is logged. The core logger is a geologist, has experience in lithium mineralisation, and determines the intervals of samples. All pegmatite intersections are sampled regardless of the visual presence of lithium minerals/spodumene. Host rock is typically not sampled as lithium mineralisation is localized to pegmatites (spodumene mineral) or their alteration halos (holmquistite mineral) within mafic volcanic host rock. • Determination of mineralisation has been based on geological logging and photo analysis. • 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. • Assay samples are selected based on geological logging boundaries or on the nominal metre marks. • Samples will be dispatched to an accredited laboratory (ActLabs) in Dryden, Ontario, Canada for sample preparation and shipment to analysis.
Drilling techniques	<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</i>	<ul style="list-style-type: none"> • NQ2 diamond double tube coring by Cyr EF-50 rig was used throughout the hole. • Core orientation was carried out by the drilling contractor.



Criteria	JORC-Code Explanation	Commentary
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	<ul style="list-style-type: none">• Lithological logging, photography• 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.• Experienced driller contracted to carry out drilling.• In broken ground the driller produced NQ core from short runs to maximise core recovery.• Core was washed before placing in the core trays.• Core was visually assessed by professional geologists before cutting to ensure representative sampling.• See "Aspects of the determination of mineralisation that are Material to the Public Report" above.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	
	<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>	
Logging	<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">• Core samples were not geotechnically logged.• Core samples have been geologically logged to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.• The core logging was qualitative in nature.• All core was photographed <p>Total length of the MF23-207 was 365m</p> <ul style="list-style-type: none">• 100% of the relevant intersections were logged.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	
	<i>The total length and percentage of the relevant intersections logged.</i>	
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	
	<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>	



Criteria	JORC-Code Explanation	Commentary
		<ul style="list-style-type: none">• Oriented core was placed V-rail and a consistent cut-line drawn along core to ensure cutting (halving) of representative samples
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	<ul style="list-style-type: none">• Oriented NQ core was cut in half using a diamond saw, with half core sent for assay and half core retained.
	<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>	<ul style="list-style-type: none">• Core sample intervals were based in logged mineralisation• No duplicates or second half-sampling• Appropriate method: oriented NQ core cut in half using a diamond saw, with a half core sent for assay and half core retained
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	<ul style="list-style-type: none">• Assays methods appropriate for style of mineralisation will be used: UT-7 (Li up to 5%) QOP Sodium Peroxide (Sodium Peroxide Fusion ICPOES + ICPMS. - No assay results are available nor have been reported at this time.
	<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>	<ul style="list-style-type: none">• Samples have been sent to an accredited laboratory - Activation Laboratories Ltd. (ActLabs).• Either standards or blanks are inserted every 10th sample interval as a part of a QA/QC process. Standard and blank results from recent drilling are within acceptable margins of error.
	<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>	<ul style="list-style-type: none">• Activation Laboratory performs internal QA/QC measures. Results are released once all internal QA/QC is verified and confirmed to be acceptable.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	<ul style="list-style-type: none">• No independent verification completed at this stage.• No holes are twins of previous holes.• Core measured, photographed and logged by geologists. Digitally recorded plus back-up records.
	<i>The use of twinned holes.</i>	<ul style="list-style-type: none">• All assay results are provided.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	<ul style="list-style-type: none">• No adjustments to the assay data.• No assay cut off grades are applied.



Criteria	JORC-Code Explanation	Commentary
	<i>Discuss any adjustment to assay data.</i>	
Location of data points	<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>	<ul style="list-style-type: none"> • Drill collars recorded with Garmin GPS that has an accuracy in the order of ± 3 metres for location. A registered surveyor will be contracted to accurately survey all drill collars at completed of drill program. • WGS 1984 UTM Zone 15N. • No specific topography survey has been completed over the project area.
	<i>Specification of the grid system used.</i>	
	<i>Quality and adequacy of topographic control.</i>	
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	<ul style="list-style-type: none"> • Not relevant to current drilling. • Not relevant to current drilling. • Core sample intervals were based in logged mineralisation and no sample composting applied. Reporting of final results includes many weighted average- composting of assay data.
	<i>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.</i>	
	<i>Whether sample compositing has been applied.</i>	
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	<ul style="list-style-type: none"> • The orientation of the mineralisation is unknown. The drilling program is aimed at determining orientation of the mineralisation. • 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 • It is uncertain whether sampling bias has been introduced, or whether the thickness drilled is a true thickness.
	<i>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.</i>	
Sample security	<i>The measures taken to ensure sample security.</i>	<ul style="list-style-type: none"> • Core samples were stored at the Dryden core yard and core shack under lock and key before delivery to ActLabsGroups in Dryden, Ontario for analysis.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	<ul style="list-style-type: none"> • Not undertaken at this stage.



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 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. 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.						
	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.							
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	• 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).						
Geology	Deposit type, geological setting and style of mineralisation.	• The Fairservice and Mavis Lake Prospects host zoned pegmatites that are prospective for lithium and tantalum						
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:	Hole ID	Easting	Northing	Elevation	Az	Dip	End Depth
		MF23-207	524005	5518044	432	14.7	-75.1	365
	Easting and northing of the drill hole collar	• All drill collars are re-surveyed at a later date upon completion of drill hole for accurate collar coordinates.						
	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.							



Criteria	JORC-Code Explanation	Commentary
Data aggregation methods	<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">• Uncut.• All aggregate intercepts detailed on tables are weighted averages.• None used.
	<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>	
Relationship between mineralisation widths and intercept lengths	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	<ul style="list-style-type: none">• True width is calculated from logging geologists structural measurements from upper and lower contacts of pegmatite dyke and the host rock. Resource shapes and geometries may aid in determine true widths as the pegmatites chaotic contacts can be miss leading. True widths are provided unless otherwise stated.• 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.• Down-hole length reported, true width not known.
	<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>	
Diagrams	<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">• Cross section of intercept relative to previous drilling data has been provided.Plan map of drill collar and cross-section references have been provided.Drilling continues to clarifying the structure of the mineralisation.
Balanced reporting	<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 to avoid misleading reporting of Exploration Results.</i>	<ul style="list-style-type: none">• Representative reporting of all relevant grades is provided in tables to avoid misleading reporting of Exploration Results.



Criteria	JORC-Code Explanation	Commentary
Other substantive exploration data	<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">• Overview of exploration data leading to selection of drill targets provided.
Further work	<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">• Further drilling underway to confirm, infill and extend known mineralisation.• A total of 20,000m of drilling for CY2023 has currently been approved with consideration for further extensions at the Board's discretion.