

8 July 2024

## Bulk Ore Sorting Testwork Achieves High Spodumene Recovery and Improved Feed Grades

### Highlights

- Feasibility-level ore sorting test work completed on bulk sample of Mavis Lake ore.
- Test work confirms suitability of Mavis Lake ore to pre-concentration by ore sorting.
- Results achieved a **30% increase in feed grade**.
- Lithia grades increased by 30%, from 1.00% Li<sub>2</sub>O in sorter feed to 1.30% Li<sub>2</sub>O in sorter product.
- Bulk XRT ore sorting **rejected 97% of waste rock**, removing 96% of iron minerals.
- Iron was effectively reduced from 7.52% Fe<sub>2</sub>O<sub>3</sub> in sorter feed to 0.49% Fe<sub>2</sub>O<sub>3</sub> in sorter product.
- Near **100% spodumene** recovery to product.
- Pre-concentration of mined ore can reduce the capital required for plant construction, enables **lower processing costs** and increased spodumene concentrate production.

Lithium exploration and project development company Critical Resources Limited **ASX:CRR** ("Critical Resources" or "the Company") is pleased to report outstanding results from its current phase of metallurgical test work (bulk testing) on ore from the Mavis Lake Lithium Project in Ontario, Canada.

### Feasibility Level Testing Methodology

Critical Resources commenced its feasibility level metallurgical test work program in May 2024. A total of 1,650kg of drill core was submitted to Saskatchewan Research Council (SRC) for feasibility-level testing.

The sample suite of drill core represents 11 pegmatite intercepts totaling 196m across four HQ drill holes, from a range of spatial locations within the current mineral resource estimate (MRE) at Mavis Lake. The sample suite included ore from depths ranging from 52.7m – 249.3m below surface. The sample suite also comprised waste rock intended to be representative of typical dilution expected from conventional mining methods.

The samples were separated into two lithology composites. The Standard Pegmatite composite consists of pegmatites more than 0.5m from the host rock contact zone. These pegmatite samples comprised zero (0) waste rock dilution and are generally coarser grained. This is the predominant pegmatite mineralogy at Mavis Lake.



The Contact Zone Pegmatite composite consists of pegmatites within 0.5m of the host rock contact zone. These pegmatite samples are generally finer grained and more altered. The Contact Zone Pegmatite composite also comprised ~40% waste rock to reflect worst case mining dilution.

Although Contact Zone pegmatites are a minority within the Mavis Lake deposit, their distinct mineralogy and increased likelihood of mining dilution warrant in depth metallurgical investigation.

Ore sorting has become increasingly adopted in hard rock lithium mining to effectively pre-treat contact zone pegmatites. Ore sorting is employed to reject waste rock and mining dilution from ROM feed, pre-concentrating the ore prior to downstream processing.

This has the advantage of increasing feed grades to the processing plant, de-bottlenecking dense medium separation (DMS) and flotation circuits, increasing spodumene production and improving concentrate quality.

## Testing Process

The Contact Zone Pegmatite was crushed and screened to +25mm -75mm. A 680kg sub sample was then subjected to bulk XRT ore sorting to separate waste rock from pegmatite.

Testwork results summarised in Table 1 and Table 2 show that ore sorting achieved 40% mass rejection to waste, removing 100% of iron bearing waste minerals ferrohornblende and holmquistite as seen in figure 1.

Spodumene recovery to sorter product was 100%. Lithia grades increased by 30%, from 1.00% Li<sub>2</sub>O in sorter feed to 1.30% Li<sub>2</sub>O in sorter product. Iron was effectively reduced from 7.52% Fe<sub>2</sub>O<sub>3</sub> in sorter feed to 0.49% Fe<sub>2</sub>O<sub>3</sub> in sorter product.

**Table 1 - Bulk XRT Sort - Mass Balance and Assays**

| Stream             | Mass  |     | Assays (wt%)      |                                |                  |                                |                  |                   |      |     |     |
|--------------------|-------|-----|-------------------|--------------------------------|------------------|--------------------------------|------------------|-------------------|------|-----|-----|
|                    | kg    | %   | Li <sub>2</sub> O | Fe <sub>2</sub> O <sub>3</sub> | SiO <sub>2</sub> | Al <sub>2</sub> O <sub>3</sub> | K <sub>2</sub> O | Na <sub>2</sub> O | MnO  | CaO | MgO |
| <b>XRT Product</b> | 408.5 | 60  | 1.30              | 0.49                           | 74.2             | 16.8                           | 2.65             | 4.40              | 0.08 | 0.3 | 0.1 |
| <b>XRT Waste</b>   | 271.7 | 40  | 0.53              | 18.10                          | 51.7             | 13.6                           | 0.48             | 1.88              | 0.33 | 8.4 | 4.1 |
| Feed (calc.)       | 680.2 | 100 | 1.00              | 7.52                           | 65.2             | 15.5                           | 1.78             | 3.39              | 0.18 | 3.5 | 1.7 |

**Table 2 - Bulk XRT Sort - Mineral Balance**

| Stream             | Mass  |     | Distribution (%) |        |        |            |           |                 |              |
|--------------------|-------|-----|------------------|--------|--------|------------|-----------|-----------------|--------------|
|                    | kg    | %   | Spodumene        | Quartz | Albite | Orthoclase | Muscovite | Ferrohornblende | Holmquistite |
| <b>XRT Product</b> | 408.5 | 60  | 100              | 66     | 82     | 100        | 100       | 0               | 0            |
| <b>XRT Waste</b>   | 271.7 | 40  | 0                | 34     | 18     | 0          | 0         | 100             | 100          |
| Feed (calc.)       | 680.2 | 100 | 100              | 100    | 100    | 100        | 100       | 100             | 100          |



**Figure 1 - Bulk ore sorting results showing mafic waste rock (top) separated from Contact Zone pegmatite (bottom)**



The bulk ore sorting testwork results confirm the findings of amenability studies completed earlier this year (refer to ASX Announcement 2 May 2024). Mavis Lake ore is highly amenable to pre-concentration by XRT sorting in the coarse, dry phase of the flowsheet.

The ability to reject mining dilution prior to processing helps unlock the full potential of the Mavis Lake resource. By removing iron bearing minerals early in the beneficiation flowsheet (refer to figure 2), the performance of both dense medium separation (DMS) and flotation processes can be optimised. This facilitates higher plant throughout rates, increased spodumene recoveries and an improved spodumene concentrate quality.

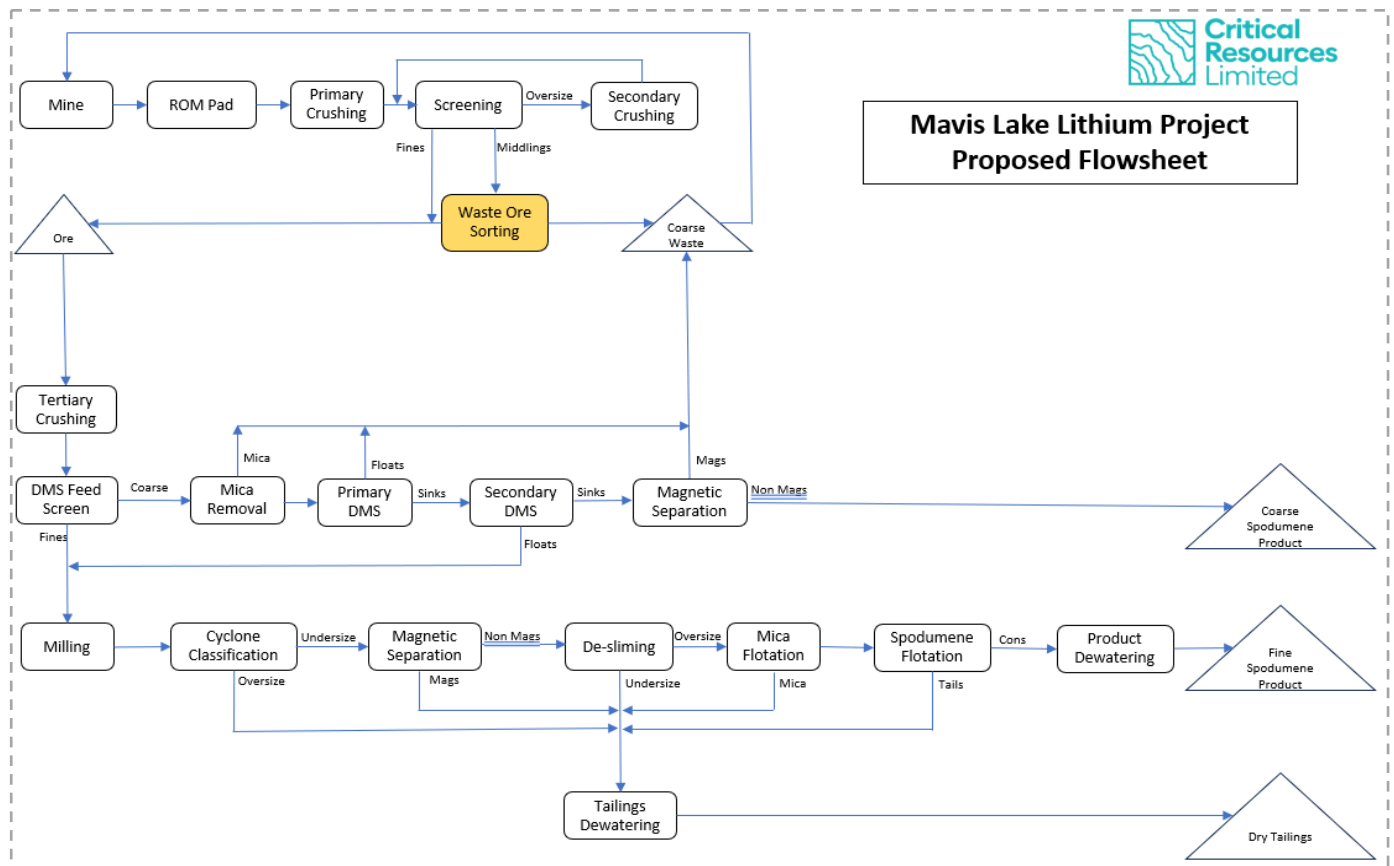


Figure 2 – Proposed Flowsheet for Mavis Lake ore



**Figure 3 – XRT Testing Facility at SRC Canada**

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

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**ABOUT CRITICAL RESOURCES LIMITED** Critical Resources is focused on the exploration, development and delivery of the critical metals required for a decarbonized future, underpinned by a portfolio of lithium projects in Ontario, Canada which are ideally positioned to participate in the rapidly growing North American battery materials supply chain.

The Company's principal focus is on its flagship Mavis Lake Lithium Project in Ontario, Canada, where it has completed over 45,000m of drilling and defined a maiden Inferred Mineral Resource of 8Mt grading 1.07% Li<sub>2</sub>O. Recent exploration success has demonstrated substantial potential to expand this resource and make new discoveries in the surrounding area. Critical is progressing a dual-track strategy at Mavis Lake of targeting resource growth in parallel with multiple permitting and project development workstreams.

**ABOUT SASKATCHEWAN RESEARCH COUNCIL** The Saskatchewan Research Council (SRC) is Canada's second largest research and technology organization. SRC focuses its efforts on the mining, minerals, agriculture and energy sectors, and the environmental considerations that are important across each sector. SRC's Mining and Energy Division provides applied research, development and demonstration to exploration and mining companies, as well as oil and gas producers and pipeline operators. The Mineral Processing Business Unit provides leading-edge solutions to mining and mineral clients. Services focus on RD&D for uranium, potash, rare earths, lithium, diamonds, gold, base metals, industrial minerals (mineral sands, quartz, feldspars) and other priority minerals.

**COMPETENT PERSONS STATEMENT** The information in this ASX Announcement that relates to Metallurgical results is based on information compiled by Mr Brady Jenkins, a Competent Person who is a Member of the Australian Institute of Mining and Metallurgy (MAusIMM). Mr Jenkins is an employee of Critical Resources. Mr Jenkins has sufficient experience in mineral processing of this nature 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 Jenkins consents to the inclusion in this Announcement in the form and context in which it appears.

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.

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## Appendix 1 – Samples and Related Exploration Results

**Table A1-1 - ICP Assays - Ore Sorting Products**

| XRT Stream | Assays    |              |               |              |               |             |              |             |             |             |              |              |           |           |           |           |          |           |             |
|------------|-----------|--------------|---------------|--------------|---------------|-------------|--------------|-------------|-------------|-------------|--------------|--------------|-----------|-----------|-----------|-----------|----------|-----------|-------------|
|            | Li<br>ppm | Li2O<br>wt % | Fe2O3<br>wt % | SiO2<br>wt % | Al2O3<br>wt % | K2O<br>wt % | Na2O<br>wt % | MnO<br>wt % | CaO<br>wt % | MgO<br>wt % | P2O5<br>wt % | TiO2<br>wt % | Ba<br>ppm | Cr<br>ppm | Sc<br>ppm | Sr<br>ppm | Y<br>ppm | Zr<br>ppm | LOI<br>wt % |
| Product    | 6060      | 1.30         | 0.49          | 74.2         | 16.8          | 2.65        | 4.4          | 0.08        | 0.27        | 0.06        | 0.27         | 0.02         | 12        | 173       | <2        | 38        | <2       | 21        | 0.50        |
| Waste      | 2480      | 0.53         | 18.1          | 51.7         | 13.6          | 0.48        | 1.88         | 0.33        | 8.42        | 4.06        | 0.20         | 1.46         | 87        | 83        | 37        | 157       | 44       | 131       | 0.40        |

**Table A1-2 - XRD Assays - Ore Sorting Products**

| XRT Stream | XRD Mineralogy |             |             |                 |                |                      |                   |            |
|------------|----------------|-------------|-------------|-----------------|----------------|----------------------|-------------------|------------|
|            | Spodumene wt % | Quartz wt % | Albite wt % | Orthoclase wt % | Muscovite wt % | Ferrohornblende wt % | Holmquistite wt % | Total wt % |
| Product    | 16.2           | 30.1        | 37.3        | 11.7            | 4.8            | 0.0                  | 0.0               | 100.1      |
| Waste      | 0.0            | 23.2        | 12.6        | 0.0             | 0.0            | 44.4                 | 19.8              | 100        |

**Table A1-3: List of samples taken for metallurgical testwork composite.**

|                                    | Drill Hole | Twinned Hole | Core Type | From (m) | To (m) | Length (m) | Est. Sample (kg) |
|------------------------------------|------------|--------------|-----------|----------|--------|------------|------------------|
| Samples for Metallurgical Testwork | MET23-002  | MF22-121     | HQ        | 46.0     | 64.5   | 18.5       | 155              |
|                                    | MET23-003R | MF22-116     | HQ        | 52.7     | 54.7   | 2.0        | 17               |
|                                    | MET23-003R | MF22-116     | HQ        | 54.7     | 76.0   | 21.3       | 178              |
|                                    | MET23-003R | MF22-116     | HQ        | 76.0     | 82.8   | 6.8        | 57               |
|                                    | MET23-003R | MF22-116     | HQ        | 87.0     | 100.3  | 13.3       | 112              |
|                                    | MET23-003R | MF22-116     | HQ        | 110.5    | 123.3  | 12.8       | 108              |
|                                    | MET23-004  | MF22-163     | HQ        | 81.5     | 108.0  | 26.5       | 223              |
|                                    | MET23-004  | MF22-163     | HQ        | 112.1    | 123.6  | 11.5       | 97               |
|                                    | MET23-004  | MF22-163     | HQ        | 131.3    | 142.9  | 11.6       | 97               |
|                                    | MET23-005  | MF23-207     | HQ        | 177.6    | 186.0  | 8.4        | 71               |
|                                    | MET23-005  | MF23-207     | HQ        | 186.0    | 249.3  | 63.3       | 532              |



## JORC Table 1 – MET23-002, MET23-003R, MET23-004, MET23-005

### 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>• Drill core samples were provided by drill holes from the 2022 and 2023 Mavis Lake Drill Program performed by Critical Resources Limited.</li> <li>• Oriented NQ core was cut in half and quarters using a diamond saw.</li> <li>• No other measurement tools other than directional survey tools have been used in the holes at this stage.</li> <li>• Oriented core was placed V-rail and a consistent cut-line drawn along core to ensure cutting (halving) of representative samples.</li> <li>• 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.</li> </ul> |
|                            | <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                            | <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>• Ore sorting testing samples are selected based on lithology and geological logging boundaries or on the nominal metre marks.</li> <li>• Samples sent to SRC were bagged on site with security tags, shipped to Saskatchewan Research Council (SRC) via vehicle transport and recovered by SRC Laboratory in Saskatoon, Saskatchewan Canada.</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</i>                                                                                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>• NQ2 and HQ2 diamond double tube coring by Cyr Drilling's 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> <li>• Experienced driller contracted to carry out drilling.</li> <li>• In broken ground the drillers produced NQ core from short runs to maximise core recovery.</li> <li>• Core was washed before placing in the core trays.</li> <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>                                                                                                                                                                                               |
|                              | <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>                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <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 geotechnically logged.</li> <li>• Core samples have been geologically logged to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>• The core logging was qualitative in nature.</li> <li>• All core was photographed</li> </ul> <p>Total length of the MF22-064 was 185m</p> <p>100% of the relevant intersections were logged.</p> <p>Total length of the MF22-121 was 137m</p> <p>100% of the relevant intersections were logged.</p> <p>Total length of the MF23-192 was 327.75m</p> <p>100% of the relevant intersections were logged.</p> <p>Total length of the MF23-215 was 368m</p> <p>100% of the relevant intersections were logged.</p> <p>Total length of the MF23-219 was 299m</p> <p>100% of the relevant intersections were logged.</p> <p>Total length of the MF23-230 was 425m</p> <p>100% of the relevant intersections were logged.</p> <p>Total length of the SZ23-002 was 173m</p> <p>100% of the relevant intersections were logged</p> <p>Total length of the SZ23-005 was 110m</p> |
|                              | <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>                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |



| Criteria                                              | JORC-Code Explanation                                                                                                                                                           | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                       |                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>• 100% of the relevant intersections were logged</li> </ul> <p>Total length of the SZ23-006 was 200m</p> <ul style="list-style-type: none"> <li>• 100% of the relevant intersections were logged</li> </ul> <p>Total length of the SZ23-007 was 113m</p> <ul style="list-style-type: none"> <li>• 100% of the relevant intersections were logged</li> </ul> <p>Total length of the SZ23-009 was 182m</p> <ul style="list-style-type: none"> <li>• 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 core taken.</i>                                                                                                | <ul style="list-style-type: none"> <li>• Oriented core was placed V-rail and a consistent cut-line drawn along core to ensure cutting (halving) of representative samples.</li> <li>• Core sample intervals were based in logged mineralisation</li> <li>• No duplicates or second half-sampling.</li> <li>• Appropriate method: oriented NQ and HQ core cut in half using a diamond saw, with a half core sent for assay and half core retained.</li> <li>• Core samples were sent to Saskatchewan Research Council (SRC) Laboratory for the purposes of mineralogical analysis and ore sorting testwork.</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>                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                                       | <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> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                                       | <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Quality of assay data and laboratory tests</b>     | <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"> <li>• Samples were previously assayed from accredited lab – Activation Laboratories.</li> <li>• Methods appropriate for style of mineralisation:<br/>UT-7 (Li up to 5%) QOP Sodium Peroxide (Sodium Peroxide Fusion ICPOES + ICPMS.</li> </ul>                                                                                                                                                                                                                                                                                                                                     |



| Criteria                                     | JORC-Code Explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                              | <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>Assays were released in previous announcements.</li> <li>Either standards or blanks are inserted every 10<sup>th</sup> sample interval as a part of a QAQC process. Standard and blank results from recent drilling are within acceptable margins of error.</li> <li>Activation Laboratory performs internal QA/QC measures. Results are released once all internal QA/QC is verified and confirmed to be acceptable.</li> <li>Samples sent to SRC were bagged on site with security tags, shipped to Saskatchewan Research Council (SRC) via vehicle transport and recovered by SRC Laboratory in Saskatoon, Saskatchewan Canada.</li> <li>The ore sorting testing samples were sent to an accredited laboratory – SRC Laboratory in Saskatoon, Saskatchewan, Canada.</li> <li>Additional assay analysis was conducted by SGS on the concentrates</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>Core measured, photographed and logged by geologists. Digitally recorded plus back-up records.</li> <li>No adjustments to the laboratory assay data.</li> <li>No assay cut off grades are applied.</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 initially recorded with Garmin GPS that has an accuracy in the order of <math>\pm 3</math> metres for location. A registered surveyor utilized DPGS survey with an accuracy of <math>\pm 0.30</math>m</li> <li>WGS 1984 UTM Zone 15N.</li> <li>No specific topography survey has been completed over the project area.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |



| Criteria                                                       | JORC-Code Explanation                                                                                                                                                                                                                | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Data spacing and distribution</b>                           | <i>Data spacing for reporting of Exploration Results.</i>                                                                                                                                                                            | <ul style="list-style-type: none"> <li>• Not relevant to current drilling.</li> <li>• Not relevant to current drilling.</li> <li>• 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.</li> </ul>                                                                                                                                                                                                                                                                                                 |
|                                                                | <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 composting has been applied.</i>                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Orientation of data in relation to geological structure</b> | <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"> <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> |
|                                                                | <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>                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Sample security</b>                                         | <i>The measures taken to ensure sample security.</i>                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>• Core samples were stored at the Dryden core yard and core shack under lock and key before delivery</li> <li>• Samples sent to SRC were bagged on site with security tags, shipped to Saskatchewan Research Council (SRC) via vehicle transport and recovered by SRC Laboratory in Saskatoon, Saskatchewan Canada.</li> </ul>                                                                                                                                                                                                                                                          |
| <b>Audits or reviews</b>                                       | <i>The results of any audits or reviews of sampling techniques and data.</i>                                                                                                                                                         | <ul style="list-style-type: none"> <li>• Not undertaken at this stage.</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> | 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. | <ul style="list-style-type: none"><li>• The Mavis Lake Lithium Project consists of 1097 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> |          |          |         |       |       |          |
|                                                | 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.                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |          |          |         |       |       |          |
| <b>Exploration done by other parties</b>       | 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>                                                                 |          |          |         |       |       |          |
| <b>Geology</b>                                 | 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>                                                                                                                                                                                                                                                                                                             |          |          |         |       |       |          |
| <b>Drill hole Information</b>                  | 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 | RL      | Azi   | Dip   | To Depth |
|                                                |                                                                                                                                                                                                                                                                              | MF22-121                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 524603.3 | 5518047  | 435.67  | 190.1 | -70.1 | 137      |
|                                                |                                                                                                                                                                                                                                                                              | MF22-64                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 524254.3 | 5518025  | 445.371 | 319.9 | -80.2 | 185      |
|                                                | Easting and northing of the drill hole collar                                                                                                                                                                                                                                | MF23-192                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 523901.1 | 5518034  | 425.466 | 339.9 | -69.7 | 327.75   |
|                                                |                                                                                                                                                                                                                                                                              | MF23-215                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 524082.9 | 5518047  | 439.333 | 355   | -68   | 368      |
|                                                | Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar                                                                                                                                                                               | MF23-219                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 523905.8 | 5518034  | 425.562 | 355   | -65   | 299      |
|                                                |                                                                                                                                                                                                                                                                              | MF23-230                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 524300.6 | 5517994  | 444.467 | 348   | -73   | 425      |
|                                                | Dip and azimuth of the hole                                                                                                                                                                                                                                                  | SZ23-002                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 524915.6 | 5517461  | 414.895 | 290   | -44.7 | 173      |
|                                                |                                                                                                                                                                                                                                                                              | SZ23-005                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 524841.3 | 5517581  | 419.713 | 109.9 | -45.5 | 110      |
|                                                | down hole length and interception depth                                                                                                                                                                                                                                      | SZ23-006                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 524840.7 | 5517580  | 419.744 | 45    | -45.4 | 200      |
|                                                |                                                                                                                                                                                                                                                                              | SZ23-007                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 524840.1 | 5517580  | 419.717 | 110   | -60   | 113      |
|                                                | hole length.                                                                                                                                                                                                                                                                 | SZ23-009                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 524770.8 | 5517620  | 430.739 | 109.8 | -45.3 | 182      |



| Criteria                                                                | JORC-Code Explanation                                                                                                                                                                                                                                         | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                         | <i>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.</i>        | All drill collars are re-surveyed at a later date upon completion of drill hole for accurate collar coordinates.                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <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>• Uncut.</li> <li>• All aggregate intercepts detailed on tables are weighted averages.</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>• True width is calculated from logging geologists structural measurements from upper and lower contacts of pegmatite dyke and the host rock. Both apparent downhole lengths and true widths are provided.</li> <li>• 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.</li> <li>• Only down-hole length reported, when true width not known.</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</i>                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |



| Criteria                                  | JORC-Code Explanation                                                                                                                                                                                                                                                                                                                        | Commentary                                                                                                                                                                                                                                              |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                           | (e.g., 'down hole length, true width not known').                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                         |
| <b>Diagrams</b>                           | Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not                                                                                                                                                                     | <ul style="list-style-type: none"> <li>The drilling is aimed at clarifying the structure of the mineralisation.</li> </ul>                                                                                                                              |
| <b>Balanced reporting</b>                 | 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                                                                                                                                                                       | <ul style="list-style-type: none"> <li>Representative reporting of all relevant grades is provided in tables to avoid misleading reporting of Exploration Results.</li> </ul>                                                                           |
| <b>Other substantive exploration data</b> | 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 | <ul style="list-style-type: none"> <li>Overview of exploration data leading to selection of drill targets provided.</li> </ul>                                                                                                                          |
| <b>Further work</b>                       | The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>Further exploration, resource defining, and metallurgical drilling will continue to commence throughout the Mavis Lake Project Area. Ongoing field programs and geophysical surveys may be conducted.</li> </ul> |