



## **Sampling of Lithium Drill Core Underway at the Jenpeg Lithium Project**

### **HIGHLIGHTS**

- Manitoba Government approves the sampling of 7 historic drill cores with logged spodumene bearing pegmatites
- Sampling has commenced with assay results expected in 4-8 weeks
- Multiple significant spodumene bearing pegmatite intercepts are being sampled, highlights include:
  - XL-17: 35.9m of total pegmatite down hole
  - XL-21: 31.5m of total pegmatite down hole
  - XL-6: 19m of total pegmatite down hole
- Previous results from two historic holes reported on 17 April 2023 delivered high-grade lithium intercepts up to 1.40% Li<sub>2</sub>O
- Summer field program planned for Q3 CY23 to further define targets with mapping, remote sensing and geochemical sampling
- Tanco Lithium Mine operator, Sinomine and LG Energy solutions planning to develop a downstream Lithium Hydroxide plant in Manitoba

### **Managing Director, Christopher Piggott, commented:**

*“Jenpeg is an emerging lithium discovery in Manitoba, with work to date indicating that the region has the potential to host a large-scale, lithium rich pegmatite system.*”

*After successful negotiations, we have achieved positive outcome for the Company and further strengthened our relationship with the Manitoba Government and the Manitoba Geological Survey. The sampling of this historical core is a significant step towards unlocking the value potential at Jenpeg.*

*Manitoba has a long history and expertise within the lithium sector, and we look forward to demonstrating the potential significance of this pegmatite system at our project. With sampling underway, we look forward to updating the market in the coming weeks and months, as we receive results from all our active work programs.”*

Critical metals explorer **Leeuwin Metals Ltd (LMI or the Company) (ASX: LMI)** is pleased to announce it has commenced sampling of 7 historic drill holes with observed spodumene-bearing pegmatites, never assayed for lithium at our 100% owned Jenpeg Lithium project (**Jenpeg**) in Manitoba, Canada.

Jenpeg is a significant large-scale opportunity with mapped pegmatite swarms over +6km of strike that remains inadequately tested for its lithium potential. Historical drilling has successfully intersected multiple, sub-parallel spodumene bearing Lithium-Caesium-Tantalum (LCT) pegmatites up to 20m thick over >400m strike length.



**Figure 1** Core XL-17 - 11.0m of unsampled spodumene bearing pegmatite from 19.8m.

## Sampling for High-Grade Lithium

Successful discussions with the Manitoba Government and Geological Survey have resulted in the sampling of 7 historic drill holes, we expect assay results within 4-8 weeks. This is in addition to the 2 previously announced drill holes which returned high-grade lithium results (refer LMI's ASX announcement 17 April 2023).

With detailed logging and sampling of all available historical core, the Company can now focus on advancing an effective field exploration program aimed at generating high impact results that will assist further targeting.



**Figure 2** Large grained Spodumene (left image), Chief Geologist (centre image) logging historic drill core, and Under UV light (right image) pegmatite with spodumene mineralisation within the core shows as pink fluorescence.

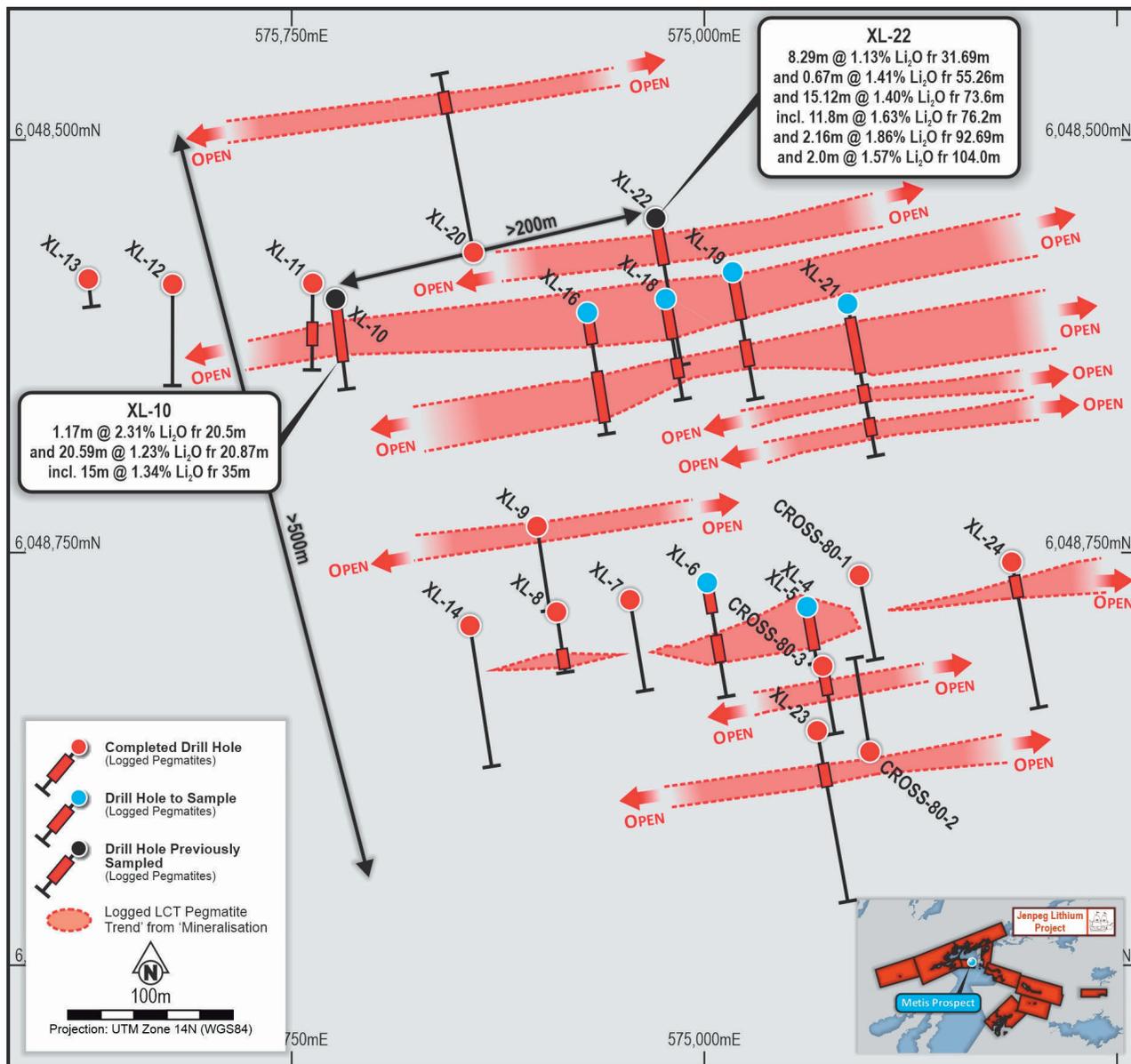


Figure 3 Planned and Completed Sampling of historical drill holes (Coordinates in UTM NAD83 z14N).

## Future Plans

The Company expects to begin summer field work in Q3 CY2023 and initially focus on the +6km trend of known spodumene bearing pegmatites at Spodumene Island. Exploration activities (rock chip and channel sampling, detailed geological mapping and remote sensing) will provide additional targets, informing ongoing exploration within the key areas while assisting regional exploration programs within our +1,700km<sup>2</sup> of tenure. This work will ultimately aim to demonstrate the significant opportunity with the project and assist with the generation of drill targets and assist with the ongoing engagement of all key stakeholders.

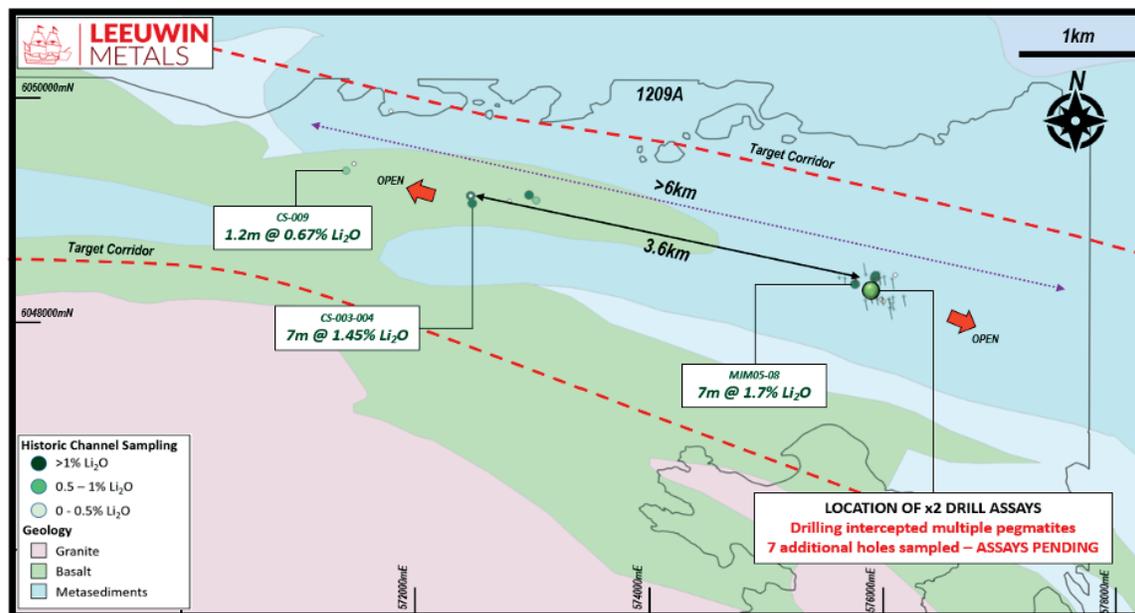


Figure 4 Local Geology of Spodumene Island Prospect area (Coordinates in UTM NAD83 z14N).

### Summary log:

The following table displays the seven historical drill holes which intercepted significant widths of logged spodumene bearing pegmatites, which were never assayed for lithium. Sampling of these holes and corresponding intervals are underway:

| Holes For Sampling | From (m) | To (m) | Peg Interval (m) | Total Peg in hole (m) | Lithology |
|--------------------|----------|--------|------------------|-----------------------|-----------|
| XL4                | 13.8     | 22.3   | 8.5              | 18.5                  | Pegmatite |
|                    | 24.4     | 26.8   | 2.4              |                       |           |
|                    | 45.2     | 52.8   | 7.6              |                       |           |
| XL5                | 19.2     | 25.2   | 6.0              | 11.8                  | Pegmatite |
|                    | 32.5     | 36.0   | 3.5              |                       |           |
|                    | 40.2     | 42.5   | 2.3              |                       |           |
| XL6                | 20.8     | 27.7   | 6.9              | 19.0                  | Pegmatite |
|                    | 55.1     | 67.2   | 12.1             |                       |           |
| XL-17              | 9.8      | 15.8   | 6.0              | 35.9                  | Pegmatite |
|                    | 19.4     | 30.4   | 11.0             |                       |           |
|                    | 65.0     | 67.7   | 2.7              |                       |           |
|                    | 79.5     | 85.6   | 6.1              |                       |           |
|                    | 89.0     | 93.7   | 4.7              |                       |           |
| XL-18              | 10.0     | 11.8   | 1.8              | 14.7                  | Pegmatite |
|                    | 16.0     | 18.0   | 2.0              |                       |           |
|                    | 27.4     | 38.3   | 10.9             |                       |           |
| XL-19              | 17.5     | 27.5   | 10.0             | 15.5                  | Pegmatite |
|                    | 40.8     | 46.3   | 5.5              |                       |           |
| XL-21              | 28.5     | 35.0   | 6.5              | 31.5                  | Pegmatite |
|                    | 39.8     | 45.0   | 5.2              |                       |           |
|                    | 53.5     | 63.0   | 9.5              |                       |           |
|                    | 92.9     | 103.2  | 10.3             |                       |           |

Figure 5 Summary logs of Holes for Sampling (refer to Appendix B, Table 1 for collar details). All Pegmatite intervals in the above table contain visible estimates of spodumene content between 10%-20%. See Appendix A with respect to cautionary statement for visual estimates.

## Jenpeg Lithium Project – Manitoba, Canada

The Jenpeg project is a significant early-stage opportunity with mapped pegmatite swarms over +6km of strike that remains inadequately tested for lithium.

To date Leeuwin has only received assays for 2 holes from the 23-hole 1981 drill program (refer to Figure 3).

Multiple, shallow, spodumene bearing pegmatites, dipping gently to the north have been defined by the drilling with many of the holes not yet assayed for lithium.

Significant results from the 2 assayed holes include (Refer to ASX announcement 17 April 2023):

- XL-10 **1.17m @ 2.31% Li<sub>2</sub>O** from 20.5m; and **20.59m @ 1.23% Li<sub>2</sub>O** from 29.87m, incl. **15m @ 1.34% Li<sub>2</sub>O** from 35m.
- XL-22 **8.29m @ 1.13% Li<sub>2</sub>O** from 31.69m; **0.67m @ 1.41% Li<sub>2</sub>O** from 55.26m; **15.12m @ 1.40% Li<sub>2</sub>O** from 73.6m, incl. **11.8m @ 1.63% Li<sub>2</sub>O** from 76.2m; **2.16m @ 1.86% Li<sub>2</sub>O** from 92.69m; and **2.0m @ 1.57% Li<sub>2</sub>O** from 104.0m.

### Regional Exploration

Although only limited lithium focused regional exploration has occurred, previously reported rock chips and historic channel sampling from spodumene bearing pegmatites returned 13 samples out of 29 with assay results greater than 1% Li<sub>2</sub>O. Results include (refer to the ITAR in the LMI's prospectus on the ASX 28 March 2023):

- **1.7% Li<sub>2</sub>O** over 7 m
- **1.45% Li<sub>2</sub>O** over 7 m
- **1.11% Li<sub>2</sub>O** over 4.4 m
- **0.94% Li<sub>2</sub>O** over 9.2 m.

Combined with the historical drilling and sampling at Metis Island these results define more than 3.6km of prospective strike extent for LCT Pegmatite mineralisation which remains open in all directions (refer to Figure 4).

**Infrastructure and Location**

The Jenpeg project is located in the Canadian province of Manitoba, around 120km south of the major regional mining centre of Thompson. The project is accessed by Provincial Highway 6 and is well serviced by hydroelectric power from the Jenpeg power station to the south.

The 100% owned Jenpeg project consists of the 57.4km<sup>2</sup> granted Mineral Exploration Licences (MEL1209A) within a larger area of applications covering more than 1,724.04km<sup>2</sup>, refer to Figure 6 below.

Tanco Mine, operated by mining giant Sinomine Resource Group Co. Ltd., is currently active in Manitoba, with plans in progress for the development of a downstream Lithium Hydroxide plant in Manitoba, in collaboration with LG Energy Solutions.<sup>1</sup>

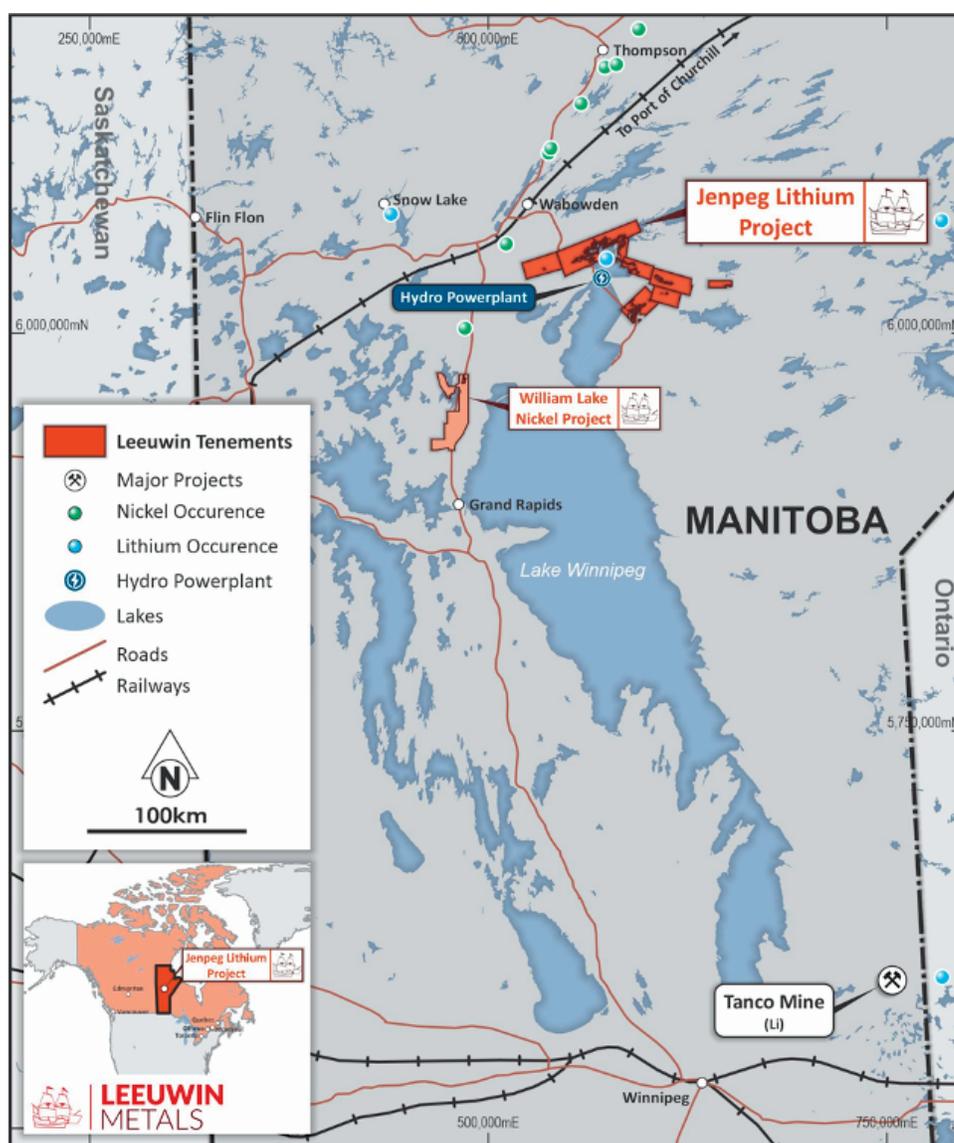


Figure 6 Location of the 100% owned Jenpeg Lithium Project MEL Applications. Coordinates in UTM NAD 83 z14.

1. <https://www.theglobeandmail.com/business/article-chinese-mining-company-sinomine-planning-manitoba-lithium-refinery/>

Released with the authority of Leeuwin Metals Ltd's Board of Directors.

**KEY CONTACTS**

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**ABOUT LEEUWIN METALS LTD**

Leeuwin is a mineral explorer committed to securing critical metals vital for the advancement of electric vehicles and renewable energy.

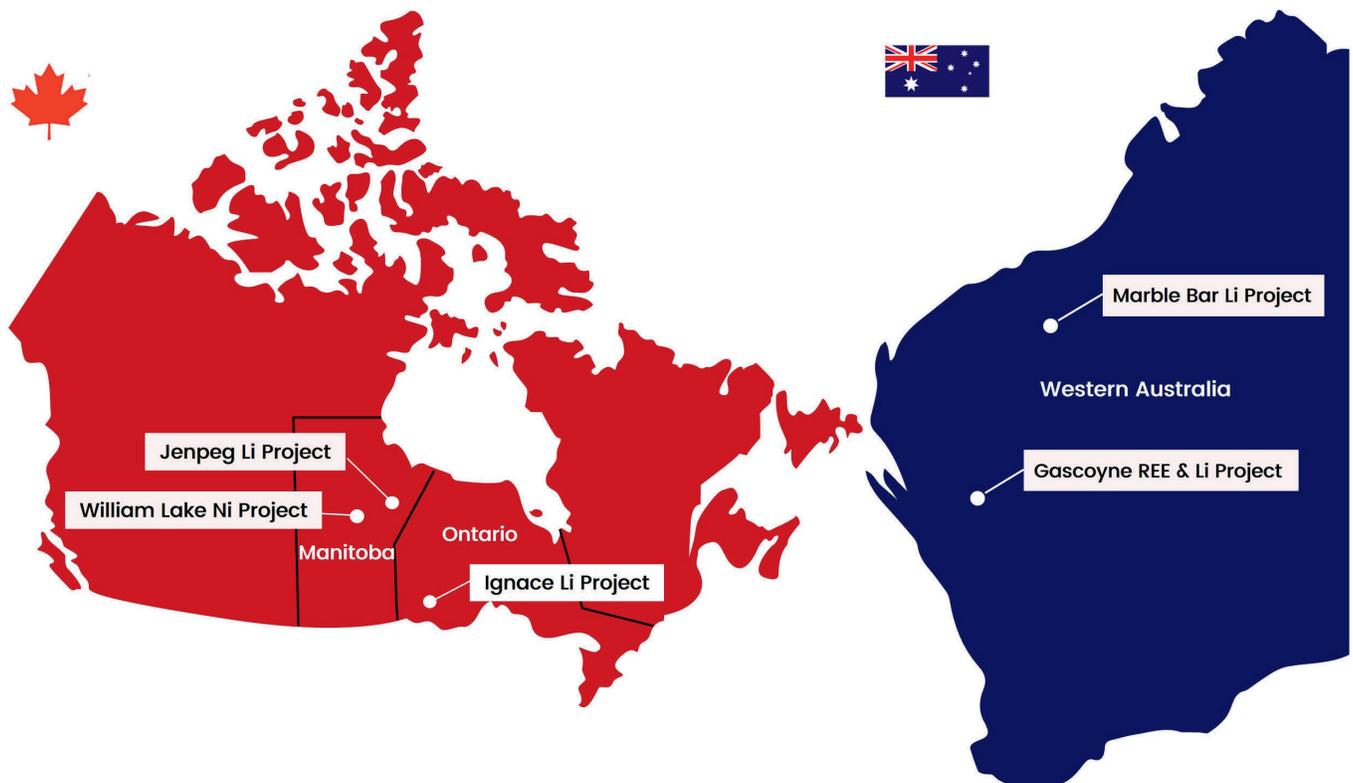
Leeuwin has five projects, three located in Canada and two Western Australia which are highly prospective for Nickel, Copper, PGE, and Lithium.

Our goal is to contribute to the global shift towards decarbonisation and electrification, working towards a greener future. Led by a skilled team with expertise in project generation, discovery, development, operations, and transactions.

**William Lake Nickel Project** is the flagship asset where the Company is exploring for high grade Nickel, Copper and PGE mineralisation hosted in sulphides. The project is located in the Thompson Nickel Belt, this belt is highly fertile with several existing nickel mines currently in production.

**Jenpeg Lithium Project** is highly prospective for LCT type pegmatites. The project is located in the Cross Lake greenstone belt with previous drilling intercepting spodumene bearing pegmatites with grades of +1% Li<sub>2</sub>O present.

**Complimentary Projects** located in Western Australia and Ontario targeting Lithium and REE's.



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## APPENDIX A: IMPORTANT NOTICES

Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses 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 Company expects to receive the laboratory analytical results of the sampled drill holes in 4-8 weeks.

### No new information

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

### Competent Person Statement

The information in this report that relates to exploration results is based on and fairly represents information compiled by Mr Marcus Harden, a Competent Person whom is a Member of the Australasian Institute of Mining and Metallurgy. Mr Harden 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 Harden consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### Forward Looking Statements

Various statements in this announcement constitute statements relating to intentions, future acts and events. Such statements are generally classified as "forward looking statements" and involve known and unknown risks, uncertainties and other important factors that could cause those future acts, events and circumstances to differ materially from what is presented or implicitly portrayed herein. The Company gives no assurances that the anticipated results, performance or achievements expressed or implied in these forward-looking statements will be achieved.

## APPENDIX B: JORC CODE, 2012 EDITION – Table I Report

### Significant Intercept table

Cut-off grade of >0.5% Li<sub>2</sub>O and allowing for up to 1m interval of internal waste. Intercept lengths may not add up due to rounding to appropriate precision. Coordinates are in UTM NAD 83 z14 projection.

| Hole ID    | Easting m | Northing m | RL m | EOH Depth | Azimuth | Dip   | From                     | To    | Interval | Li <sub>2</sub> O (%) | Ta <sub>2</sub> O <sub>5</sub> ppm |
|------------|-----------|------------|------|-----------|---------|-------|--------------------------|-------|----------|-----------------------|------------------------------------|
| CROSS-80-1 | 576094    | 6048236    | 225  | 84.7      | 170     | -50   | Unavailable for sampling |       |          |                       |                                    |
| CROSS-80-2 | 576100    | 6048129    | 225  | 76.8      | 350     | -45   | Unavailable for sampling |       |          |                       |                                    |
| CROSS-80-3 | 576072    | 6048181    | 225  | 61.6      | 170     | -45   | Unavailable for sampling |       |          |                       |                                    |
| XL-4       | 576062    | 6048217    | 225  | 90.2      | 170     | -60   | Assaying underway        |       |          |                       |                                    |
| XL-5       | 576062    | 6048217    | 225  | 89        | 360     | -90   | Assaying underway        |       |          |                       |                                    |
| XL-6       | 576002    | 6048232    | 225  | 102.4     | 170     | -45   | Assaying underway        |       |          |                       |                                    |
| XL-7       | 575955    | 6048221    | 225  | 90.2      | 170     | -50   | Unavailable for sampling |       |          |                       |                                    |
| XL-8       | 575911    | 6048214    | 225  | 61        | 170     | -50   | Unavailable for sampling |       |          |                       |                                    |
| XL-9       | 575899    | 6048266    | 225  | 95.4      | 170     | -50   | Unavailable for sampling |       |          |                       |                                    |
| XL-10      | 575776    | 6048404    | 225  | 89.3      | 170     | -50   | 20.5                     | 21.67 | 1.17     | 2.31                  | 485                                |
|            |           |            |      |           |         |       | 29.87                    | 50.46 | 20.59    | 1.23                  | 194                                |
|            |           |            |      |           |         | incl: | 35                       | 50    | 15       | 1.34                  | 194                                |
|            |           |            |      |           |         |       | 51.32                    | 52.12 | 0.8      | 0.84                  | 4                                  |
| XL-11      | 575766    | 6048408    | 225  | 92.4      | 180     | -50   | Unavailable for sampling |       |          |                       |                                    |
| XL-12      | 575682    | 6048407    | 225  | 93.3      | 180     | -50   | Unavailable for sampling |       |          |                       |                                    |
| XL-13      | 575631    | 6048410    | 225  | 22.9      | 170     | -50   | Unavailable for sampling |       |          |                       |                                    |
| XL-14      | 575858    | 6048206    | 225  | 155.4     | 170     | -55   | Unavailable for sampling |       |          |                       |                                    |
| XL-16      | 575929    | 6048396    | 225  | 105.5     | 80      | -50   | Unavailable for sampling |       |          |                       |                                    |
| XL-17      | 575929    | 6048395    | 225  | 123.7     | 170     | -50   | Assaying underway        |       |          |                       |                                    |
| XL-18      | 575977    | 6048404    | 225  | 102.4     | 170     | -50   | Assaying underway        |       |          |                       |                                    |
| XL-19      | 576017    | 6048420    | 225  | 126.8     | 170     | -50   | Assaying underway        |       |          |                       |                                    |
| XL-20      | 575860    | 6048432    | 225  | 160.9     | 350     | -50   | Unavailable for sampling |       |          |                       |                                    |
| XL-21      | 576087    | 6048401    | 225  | 150.3     | 170     | -50   | Assaying underway        |       |          |                       |                                    |
| XL-22      | 575971    | 6048452    | 225  | 154.2     | 170     | -50   | 31.69                    | 39.98 | 8.29     | 1.13                  | 153                                |
|            |           |            |      |           |         |       | 55.26                    | 55.93 | 0.67     | 1.41                  | 107                                |
|            |           |            |      |           |         |       | 72.83                    | 72.9  | 0.07     | 0.78                  | 10                                 |
|            |           |            |      |           |         |       | 73.6                     | 88.72 | 15.12    | 1.4                   | 159                                |
|            |           |            |      |           |         | incl: | 76.2                     | 88    | 11.8     | 1.63                  | 143                                |
|            |           |            |      |           |         |       | 92.69                    | 94.85 | 2.16     | 1.86                  | 50                                 |
|            |           |            |      |           |         |       | 104                      | 106   | 2        | 1.57                  | 128                                |
| XL-23      | 576068    | 6048142    | 225  | 212.1     | 170     | -60   | Unavailable for sampling |       |          |                       |                                    |
| XL-24      | 576186    | 6048244    | 225  | 142       | 170     | -50   | Unavailable for sampling |       |          |                       |                                    |

**Section 1: Sampling techniques and data**

(Criteria in this section apply to all succeeding sections.)

| Criteria                   | JORC Code explanation   | Commentary  |
|----------------------------|---|---|
| <b>Sampling techniques</b> | 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 downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.  | <p>All drilling quoted is from Historical Operators. Drill is predominantly AQ diameter and is now stored at the Brady Road Core Facility of the Manitoban Geological Survey.</p> <p>Recent re-sampling of the drill core was ¼ core of residual reference core under the supervision of a qualified geologist on nominal 1m intervals. Interval lengths were adjusted to logged geological intervals. ¼ core samples were taken from the split core using a core saw with half the core placed in plastic sample bags and the remaining half left in the core box. For consistency the same half of core was collected for successive samples.</p>   |
|                            | Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.   | <p>Re-sampling of the drill core was ¼ core of residual reference core under the supervision of a qualified geologist on nominal 1m intervals. Interval lengths were adjusted to logged geological intervals. ¼ core samples were taken from the split core using a core saw with half the core placed in plastic sample bags and the remaining half left in the core box. For consistency the same half of core was collected for successive samples.</p> <p>Sampling was completed based on geological intervals on a nominal 1m interval but can range between 0.2m and up to 2m's. The holes have meter marks down holes. Sample sizes are considered appropriate and correctly represent the style and type of mineralisation.</p> <p>Field standards, laboratory standards and laboratory repeats were used to monitor quality of analysis.</p> |
|                            | 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. | <p>Diamond drilling was used to obtain AQ sized diamond core which was split for sample submission. Lithium assays are outstanding for today's samples.</p> <p>Resampled ¼ core is being submitted to Actlabs Laboratories in Thunder Bay, assays are currently outstanding.</p>  |
| <b>Drilling techniques</b> | Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).  | <p>All drilling quoted is from Historical Operators, Tanco Mining. Drilling is predominantly AQ diameter.</p> <p>Diamond Drill core was not historically oriented.</p>  |

| <b>Criteria</b>                                      | <b>JORC Code explanation</b>  | <b>Commentary</b>   |
|--|---|---|
| <b>Drill sample recovery</b>                         | Method of recording and assessing core and chip sample recoveries and results assessed.   | All drilling quoted is AQ diamond core. There is no recorded RQD data as is standard by observations by Leeuwin Minerals geologists do not record significant zones of core loss.   |
|  | Measures taken to maximise sample recovery and ensure representative nature of the samples.   | Unknown, not recorded by previous operators.  |
|  | 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.                                  | There is no relationship between sample recovery and grade indicated by previous operators of the project.  |
| <b>Logging</b>                                       | 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. | All samples were geologically logged on site by professional geologists. Details on the host lithology, deformation, dominant minerals and alteration minerals plus veining are recorded. Logging is to a sufficient standard to support Mineral Resource Estimation, mining studies and metallurgical studies.   |
|  | Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.   | All samples have been qualitatively logged for lithology, alteration, weathering and foliation and qualitatively logged for vein percentage, mineralisation/sulphide percentage.  |
|  | The total length and percentage of the relevant intersections logged.   | All samples were geologically logged on site by professional geologists. Details on the host lithology, deformation, dominant minerals including sulphide species and alteration minerals plus veining are recorded.  |
| <b>Subsampling techniques and sample preparation</b> | If core, whether cut or sawn and whether quarter, half or all core taken.   | Sampling of mineralised intervals was done on a geological basis under supervision of the responsible geologist. Recent re-sampling of the drill core was ¼ core of residual reference core under the supervision of a qualified geologist on nominal 1m intervals. Interval lengths were adjusted to logged geological intervals. ¼ core samples were taken from the split core using a core saw with half the core placed in plastic sample bags and the remaining half left in the core box. For consistency the same half of core was collected for successive samples. |
|  | If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.  | Not applicable.   |
|  | For all sample types, the nature, quality and appropriateness of the sample preparation technique.  | Sampling techniques are industry standard and deemed appropriate.   |
|  | Quality control procedures adopted for all subsampling stages to maximise representivity of samples.  | For consistency the same half of core was collected for successive samples. Recent re-sampling of the drill core was ¼ core of residual reference core under the supervision of a qualified geologist on nominal 1m intervals. Interval lengths were adjusted to logged geological intervals. ¼ core samples were taken from the split core using a core saw with half the core placed in plastic sample bags and the remaining half left in the core box. For consistency the same half of core was collected for successive samples.                                      |
|  | 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.                          | The samples are considered representative.  |
|  | Whether sample sizes are appropriate to the grain size of the material being sampled.   | Given the reconnaissance nature of the drilling sample sizes are deemed industry standard for LCT Pegmatite exploration.  |

| <b>Criteria</b>                                   | <b>JORC Code explanation</b>  | <b>Commentary</b>  |
|---|---|--|
| <b>Quality of assay data and laboratory tests</b> | The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.  | Diamond drilling was used to obtain AQ sized diamond core which was split for sample submission.<br><br>Resampled ¼ core is being submitted to Actlabs Laboratories in Thunder Bay, assays are currently outstanding.  |
|   | 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. | No handheld XRF or spectrometer data is recorded for the project.  |
|   | 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.                  | Resampled ¼ core is being submitted to Actlabs Laboratories in Thunder Bay, assays are currently outstanding.  |
| <b>Verification of sampling and assaying</b>      | The verification of significant intersections by either independent or alternative company personnel.   | Historical results have not been reviewed and verified by Leeuwin Metals professional geologists, however, the diamond drill core is stored by the Manitoban Geological Survey and has been reviewed and intersections are coincident with LCT pegmatite occurrences in the drill holes.<br><br>Results from recent sampling has been under the supervision of Leeuwin geologists and has been verified by professional consultant geologists. |
|   | The use of twinned holes.   | There are no twinned holes in the dataset but a comparison of the results of different drilling generations showed that results were comparable.   |
|   | Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.  | Details of primary data acquisition, data entry and verification procedures utilised by previous operators are unavailable but logging and data entry was captured on paper logs, now in Manitoba Assessment report no: 93742.<br><br>Recent sampling and assay results have been documented in digital format, verified and stored by the Company.  |
|   | Discuss any adjustment to assay data.   | No adjustments were made to assay data in results quoted.  |

| <b>Criteria</b>  | <b>JORC Code explanation</b>   | <b>Commentary</b>  |
|--|--|--|
| <b>Location of data points</b>                                 | Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.  | Drill holes were collared in local grid coordinates. Later the grids were georeferenced manually to take advantage of GIS mapping technology.  |
|  | Specification of the grid system used.   | Drill holes were collared in local grid coordinates. Later the grids were georeferenced manually to take advantage of GIS mapping technology. The mainly idealised grids were approximately positioned by rotation and translation to fit with known topographic features, and collars were positioned on the georeferenced grids and in turn georeferenced. Drilling is now recorded in the UTM NAD 83 coordinate system Zone 14. |
|  | Quality and adequacy of topographic control.   | Topographic control is based on government topographic maps. This method of topographic control is deemed adequate at this exploration stage of the project.   |
| <b>Data spacing &amp; distribution</b>                         | Data spacing for reporting of Exploration Results.   | Due to the reconnaissance stage of the Jenpeg roject the hole spacing is highly variable and of a progressive exploration in nature. However, a nominal spacing of 100m line spacing over the drill areas has been completed.  |
|  | 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. | Data spacing is not considered sufficient to establish geological and grade continuities for Mineral Resource estimation at this stage.  |
|  | Whether sample compositing has been applied.   | No sample compositing has been applied.  |
| <b>Orientation of data in relation to geological structure</b> | Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.   | Drill hole orientations were designed to test perpendicular or sub-perpendicular to the orientation of the intersected mineralisation. Drilling was typically oriented perpendicular to the trend of geophysical anomalism and the mapped strike and dip of observed mineralisation on surface and elsewhere in the project area.  |
|  | 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.                   | Due to the density of drilling and the orientation of drilling perpendicular to mineralised bodies there is limited bias introduced by drillhole orientation.  |
| <b>Sample security</b>   | The measures taken to ensure sample security.  | Measures taken to ensure sample security by historic operators are unknown. Recent resampling was secured at the Manitoba Geological Survey prior to shipping via commercial transport directly to the Actlabs laboratory in Thunder Bay for assay.  |
| <b>Audits or reviews</b>                                       | The results of any audits or reviews of sampling techniques and data.  | There have been no audits or reviews of sampling techniques and data.  |

## 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.<br>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. | The Jenpeg project is comprised of one granted and three Mineral Exploration Licence (MEL) applications covering an area of 1724.04km <sup>2</sup> surrounding the granted MEL1209A licence 57.4km <sup>2</sup> .<br><br>All drilling and results reported in the body of this release are from within the granted MEL1209A licence.<br><br>Leeuwin has submitted applications based on the Manitoban Staking process and as such will have a 100% interest in the project areas.  |
| <b>Exploration done by other parties</b>       | Acknowledgment and appraisal of exploration by other parties.  | The area covering the Jenpeg project has been the subject of exploration since the 1950s, by XL Syndicate – 1958, Noranda Exploration Company (Noranda) – 1959 to 1968, Falconbridge – 1963, Guggenheim Exploration (1969), Tantalum Mining Corporation of Canada Ltd (TANCO) – 1970 to 1982, Cross Lake Indian Band (1988), Gossan Resources Ltd – 1994 to 1995, and Alix Resources (Alix) – 2016 to 2018.<br><br>TANCO discovered tantalum and niobium oxide mineralisation in granitic pegmatites in the project area in 1979 and drilled 23 holes in 1980 but did not assay for Lithium. These holes are the subject of this release. Alix undertook 65 line km of prospecting and supported by rock chipping and trenching in 2016 which are also reported in this release. |
| <b>Geology</b>                                 | Deposit type, geological setting and style of mineralisation.  | Pegmatites in the Cross Lake area are enriched in lithium, niobium, tantalum and may contain spodumene, tourmaline, muscovite, beryl and apatite.<br><br>The Cross Lake area is underlain by rocks of the Archean Superior Province. The area is subdivided into the Molson Lake domain in the southern area and the Gods Lake domain in the northern area.<br><br>The Moslon Lake domain is dominated by granodiorites, with widespread granitic rocks, granites and pegmatites; monzodiorites and gabbroic dykes are also present.<br><br>The Gods Lake domain is characterised by amphibolite facies mafic and ultramafic metavolcanics and metasedimentary rocks.<br><br>Lithium mineralisation is associated with REE pegmatites and lithium-tin-tantalum pegmatites.       |
| <b>Drillhole 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 drillholes:<br>· easting and northing of the drillhole collar<br>· elevation or RL (elevation above sea level in metres) of the drillhole collar<br>· dip and azimuth of the hole<br>downhole length and interception<br>depth hole length.                   | Please refer to Appendix B in the body of the release for the 7 holes reported in addition to previous results reported.   |

| <b>Criteria</b>   | <b>JORC Code explanation</b>  | <b>Commentary</b>   |
|---|---|---|
| <b>Data aggregation methods</b>   | 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.  | No analytical results are being reported.<br><br>Metal equivalent values are not used.  |
| <b>Relationship between mineralisation widths and intercept lengths</b> | If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').   | The majority of the drill holes are drilled as close to orthogonal to the plane of the mineralised lodes as possible. A number of drill holes have intersected the mineralisation at high angles.<br><br>Only down hole lengths are reported.   |
| <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 be limited to a plan view of drillhole collar locations and appropriate sectional views.   | Exploration plans and further diagrams are included in the body of this release as deemed appropriate by the competent person.  |
| <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 avoid misleading reporting of Exploration Results  | No new drill hole assays are being reported. For all reported assay results from holes XL-10 and XL-22 please refer to ASX announcement 17 April 2023 and Appendix B for full table of results.<br><br>For all other results refer to the ITAR in the Company's prospectus from the 28th of March 2023. |
| <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 deleterious or contaminating substances. | All substantive exploration data as known at the time of this release is included in the release.<br><br>No metallurgical test work has been completed on the property to date.   |
| <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).  | Please refer to the body of this release.   |

### Section 3: Estimation & Reporting of Mineral Resources

Not applicable.