

21 April 2022

## **Drill Program Commences at Mavis Lake Lithium Project**

Critical Resources Limited (ASX:CRR) (“Critical Resources” or the “Company”), advises that its inaugural drill program has commenced at its 100% owned Mavis Lake Lithium Project in Ontario, Canada.

### **Highlights**

- **Cyr Drilling International commences the inaugural drill campaign at the Mavis Lake Lithium Project**
- **Program to comprise 49 holes, for a total of 5,000m**
- **<sup>1,2</sup> Previous drill programs have yielded high-grade Li<sub>2</sub>O intercepts including**
  - **55.25m at 1.04% Li<sub>2</sub>O from 80.75m in drill hole MF18-53 and**
  - **26.30m at 1.70% Li<sub>2</sub>O from 111.9m inc. 7.70m at 2.97% Li<sub>2</sub>O from 130.5m in drill hole MF17-491**
- **Previous exploration results demonstrate excellent potential for resource definition and expansion, with additional drill programs being planned**
- **Further exploration plans underway to fast-track the potential for JORC Resource delineation**
- **Mavis Lake represents a transformational opportunity for the company to position itself in the Lithium sector in Ontario, Canada**

The Company is pleased to announce the start of its inaugural drilling campaign at its 100% owned Mavis Lake Lithium Project in Ontario, Canada. Cyr Drilling International (“Cyr”) have mobilised on site and commenced set up on hole MF22-60, the first of 49 planned holes at the Project.

Critical Resources Managing Director Alex Biggs said: “We are pleased to have commenced our maiden drilling campaign at our Mavis Lake Lithium Project. Cyr Drilling provide a strong track record in safety, a high level of expertise and employment of best practice principles. We welcome Cyr Drilling as our drilling partners and look forward to a safe and successful drill campaign. Historical drilling at Mavis Lake has returned multiple high-grade lithium intersects downhole and we anticipate further high-grade intersections from this campaign. The Company has accelerated its drilling and exploration strategy at Mavis Lake with a view to defining a JORC compliant Resource in the future. Further planning is underway for the next stage of exploration at Mavis Lake with multiple targets to explore across the Project.”

<sup>1</sup>The reported intersections are down hole measurements and are not necessarily true width

<sup>2</sup>ASX Announcement 25 October 2021

**Exploration Strategy**

The planned drilling program at Mavis Lake is set to comprise 49 holes for a total of 5,000m. Drill locations are shown in Figure 1.

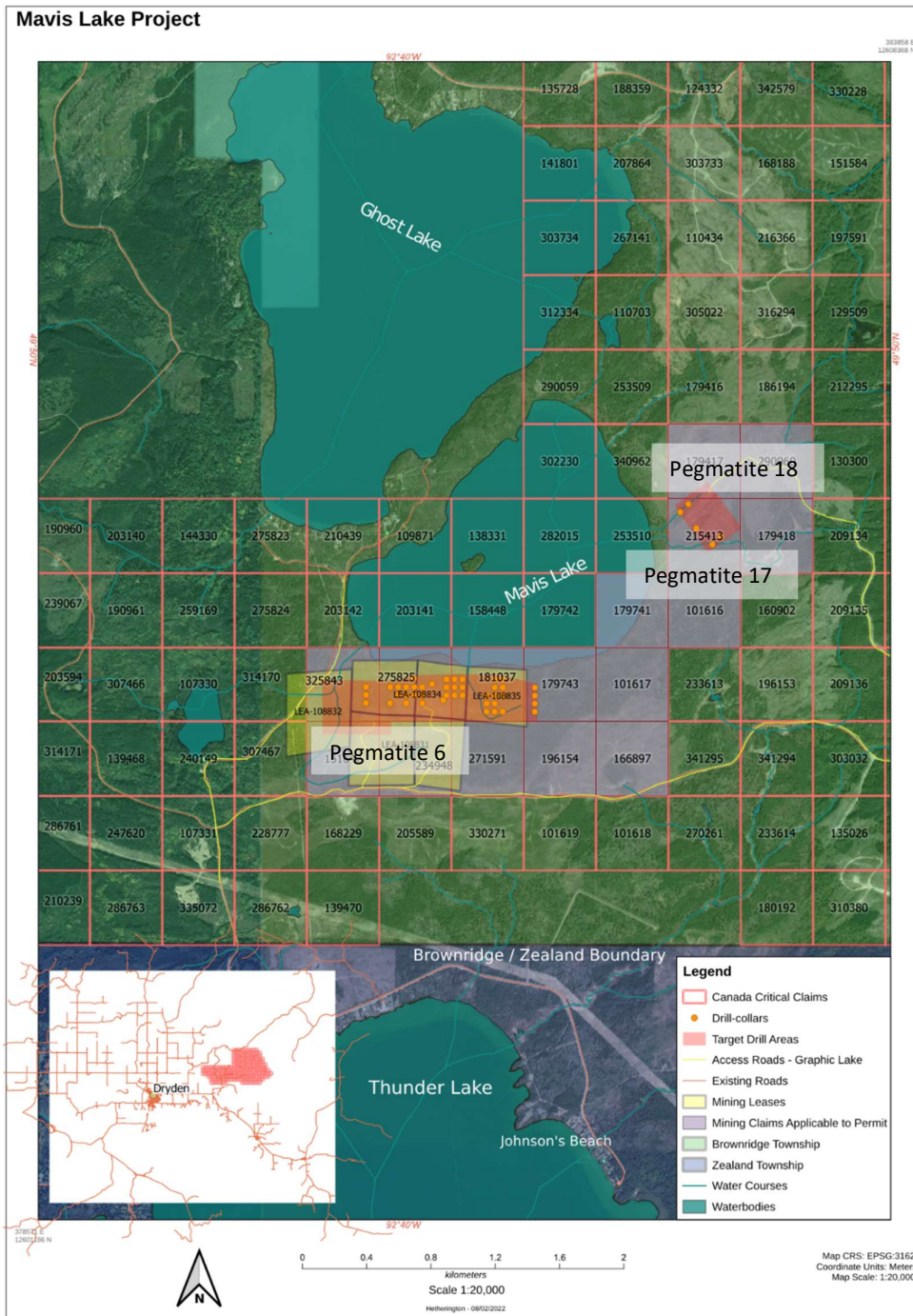
Drilling on the property has occurred intermittently since 1956. Work will be focused on the southern pegmatite outcrop (Pegmatite 6) with the remainder taking place on the northern outcrops (Pegmatite 17 and 18). The proposed drilling of validation holes, infill holes and extensional holes will allow the Company to progress toward its goal of delineating a JORC compliant Mineral Resource.

The first three holes of the drill program, MF22-60, MF22-61, and MF22-62 aim to confirm drilling from the 1950's which intersected mineralisation within Pegmatite 6. These holes aim to confirm mineralisation, quality of survey data, structures and lithologies intersected, all of which are essential to integrate into any potential future JORC compliant Resource estimate.

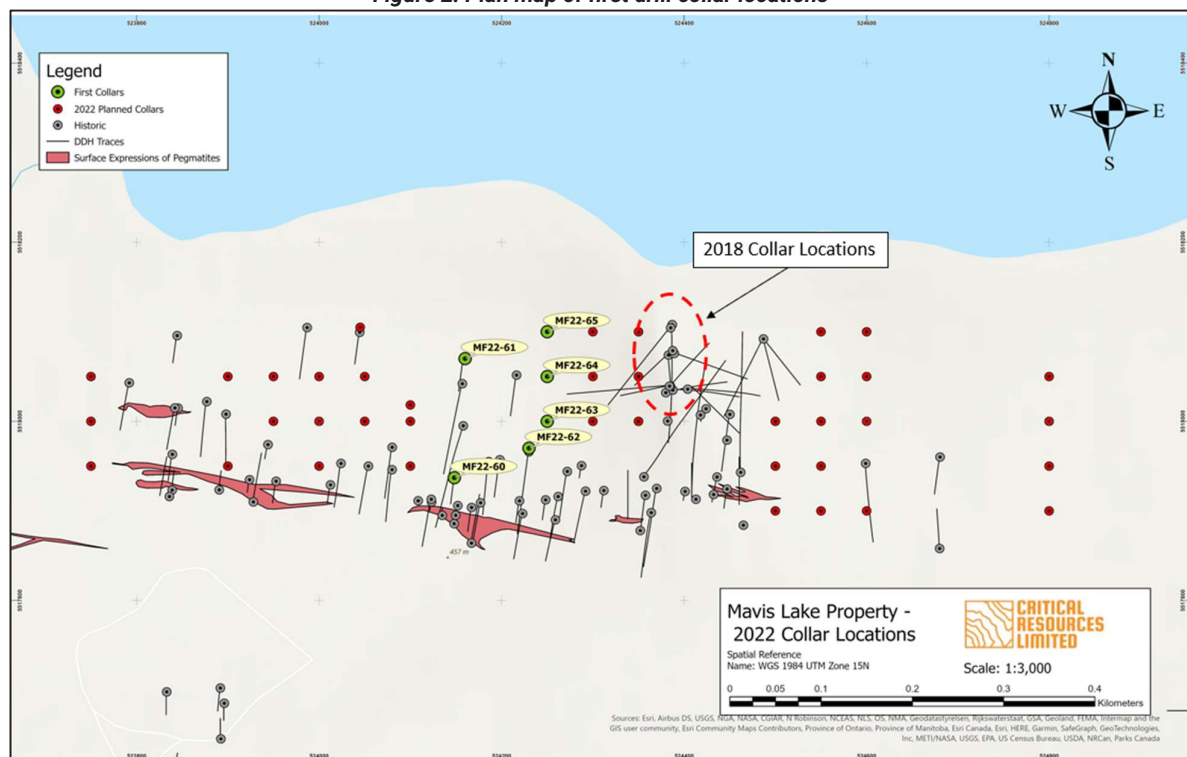
Drill holes MF22-63, MF22-64 and MF22-65 will test lithium grade continuity of Pegmatite 6 as observed from the 2018 drilling as shown in Figure 5. Collar locations are shown in Figure 2.

Planned drill holes MF22-60 and MF22-61 are shown in Figure 3, including historical surveyed drill holes and planned drill holes MF22-63, MF22-64 and MF22-65 are shown in Figure 4.

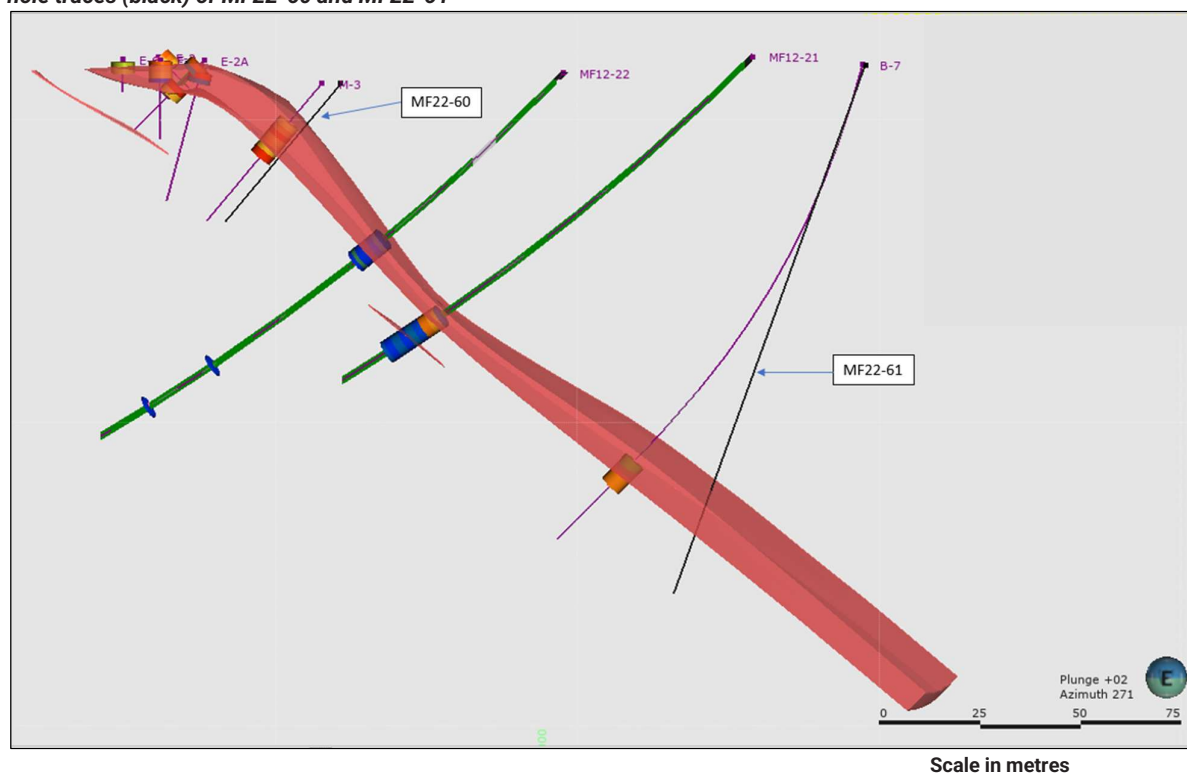
**Figure 1: Mavis Lake drill locations**



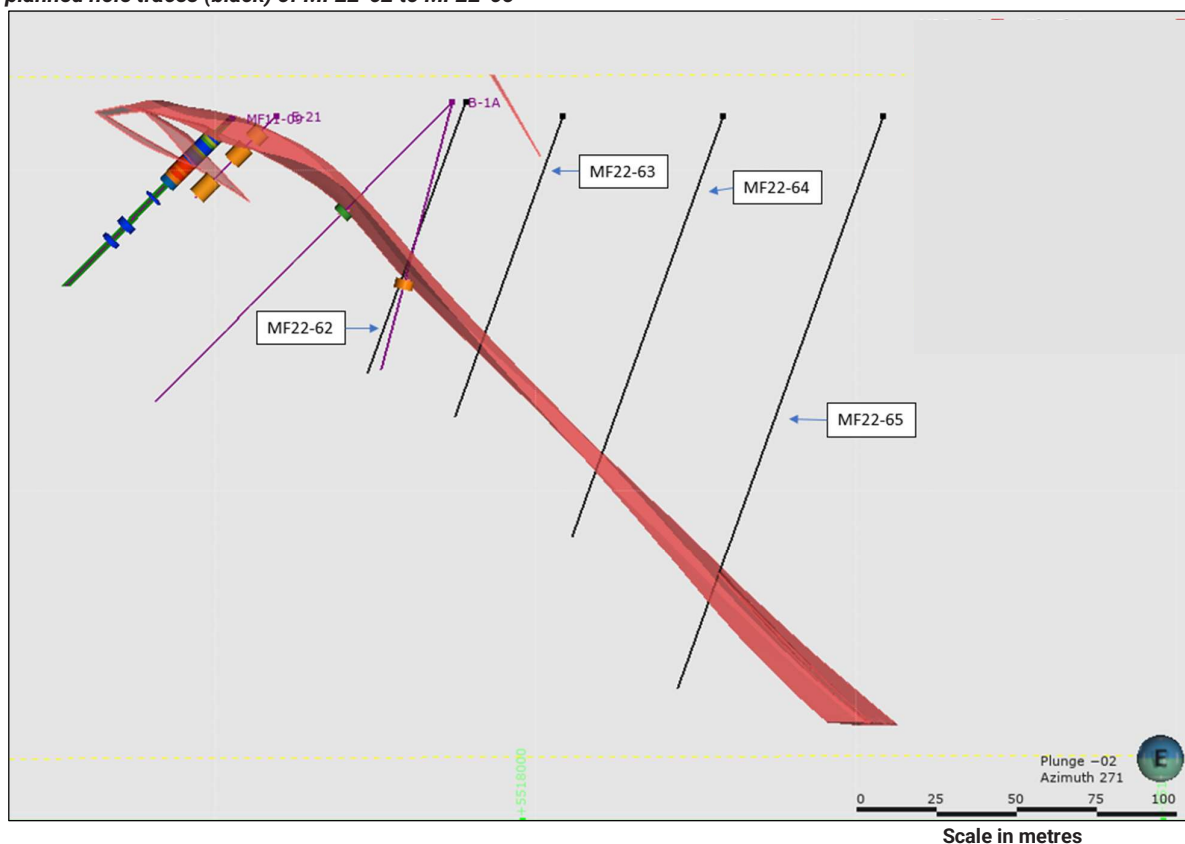
**Figure 2: Plan map of first drill collar locations**



**Figure 3: Cross-section, looking west, of Pegmatite 6 (red shape) with previous drill hole traces (purple) and planned hole traces (black) of MF22-60 and MF22-61**



**Figure 4: Cross-section, looking west, of Pegmatite 6 (red shape) with previous drill hole traces (purple) and planned hole traces (black) of MF22-62 to MF22-65**



### **Mavis Lake Project Description**

The Mavis Lake Lithium Project is 19 kilometres east of the town of Dryden, Ontario. The Project is in close vicinity to the Trans-Canada highway and railway major transportation arteries linking larger cities such as Thunder Bay, Ontario, to the southeast and Winnipeg, Manitoba, to the west. The region boasts excellent infrastructure with hydro-power located a few kilometres to the south-west of the project. The region is a well-established lithium province with multiple projects located within the vicinity.

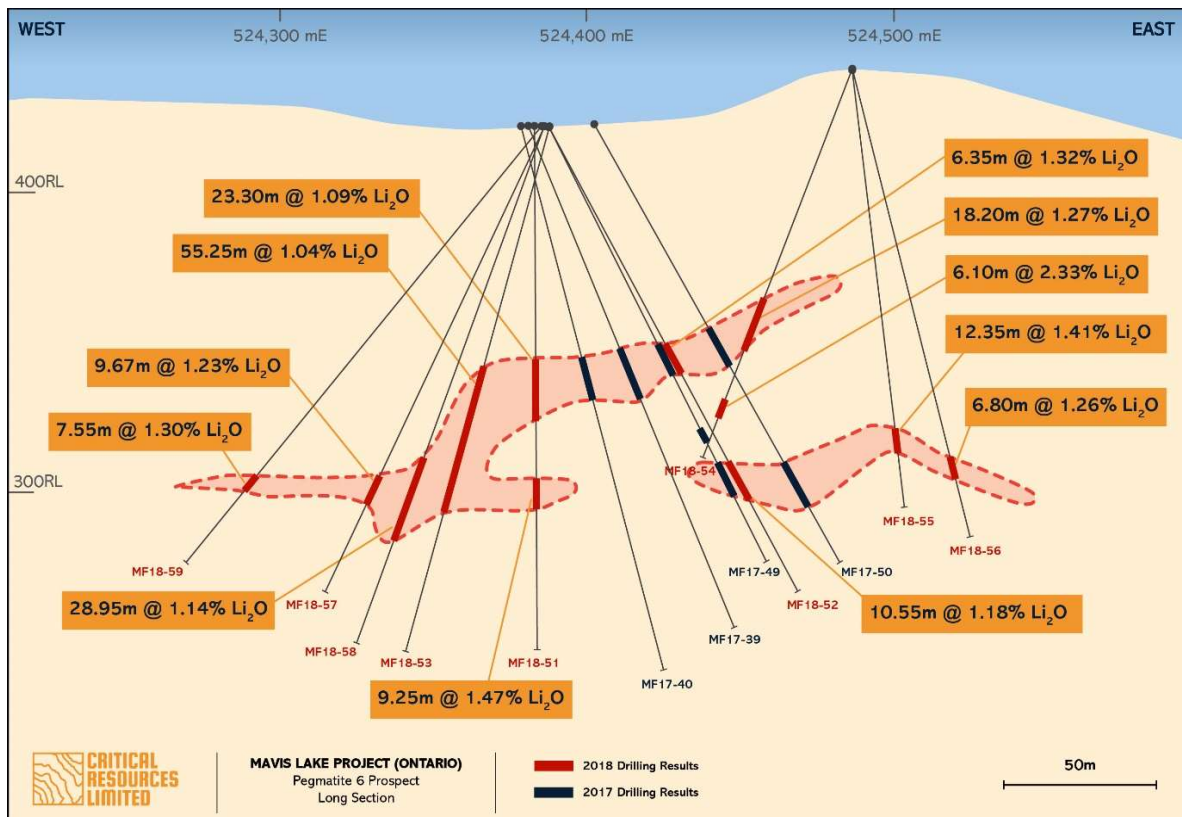
Previous drill programs have yielded high-grade  $\text{Li}_2\text{O}$  intercepts including:

- 55.25m at 1.04%  $\text{Li}_2\text{O}$  from 80.75m in drill hole MF18-53 and
- 26.30m at 1.70%  $\text{Li}_2\text{O}$  from 111.9m inc. 7.70m at 2.97%  $\text{Li}_2\text{O}$  from 130.5m in drill hole MF17-491.

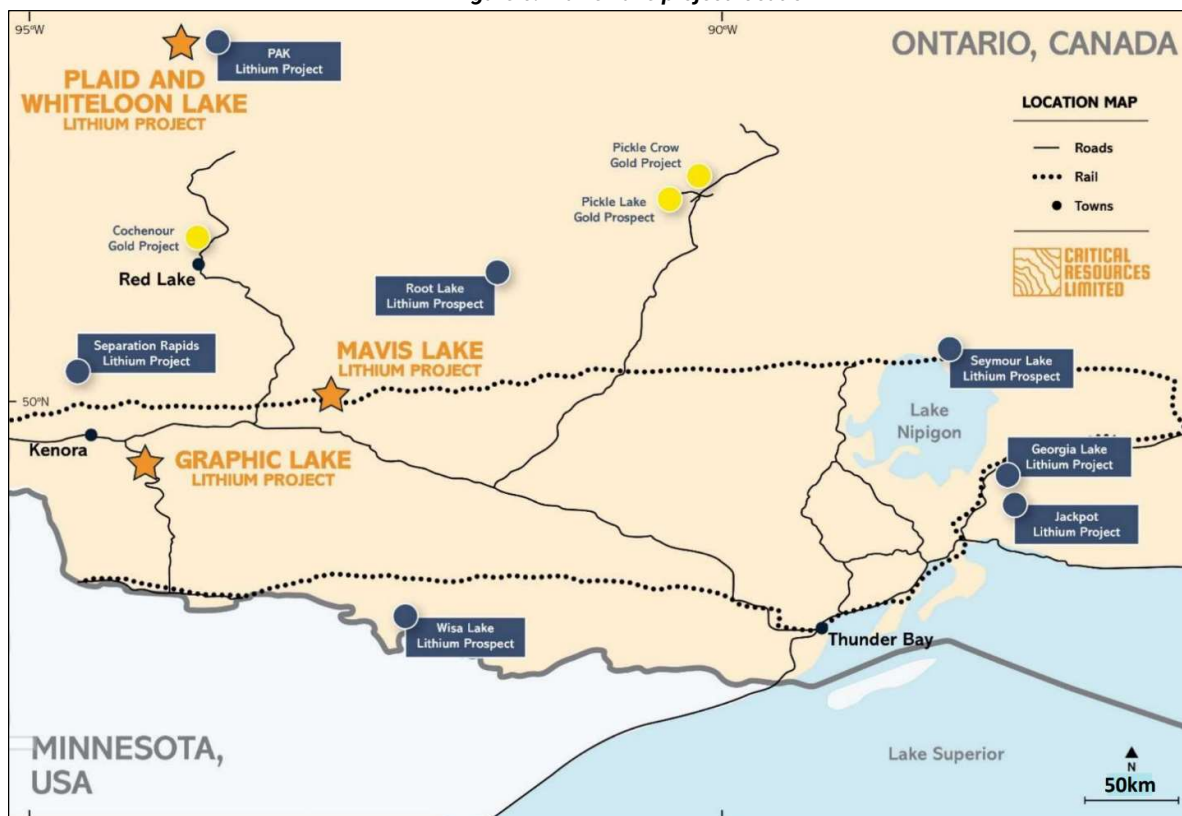
These results present significant exploration potential, a summary of previous results can be seen in ASX announcement dated 25 October 2021. A future work program has been determined and is outlined in detail in ASX announcement dated 13 Dec 2021.



**Figure 5: Sample of Mavis Lake intersections from 2017 and 2018 drilling campaign**



**Figure 6: Mavis Lake project location**

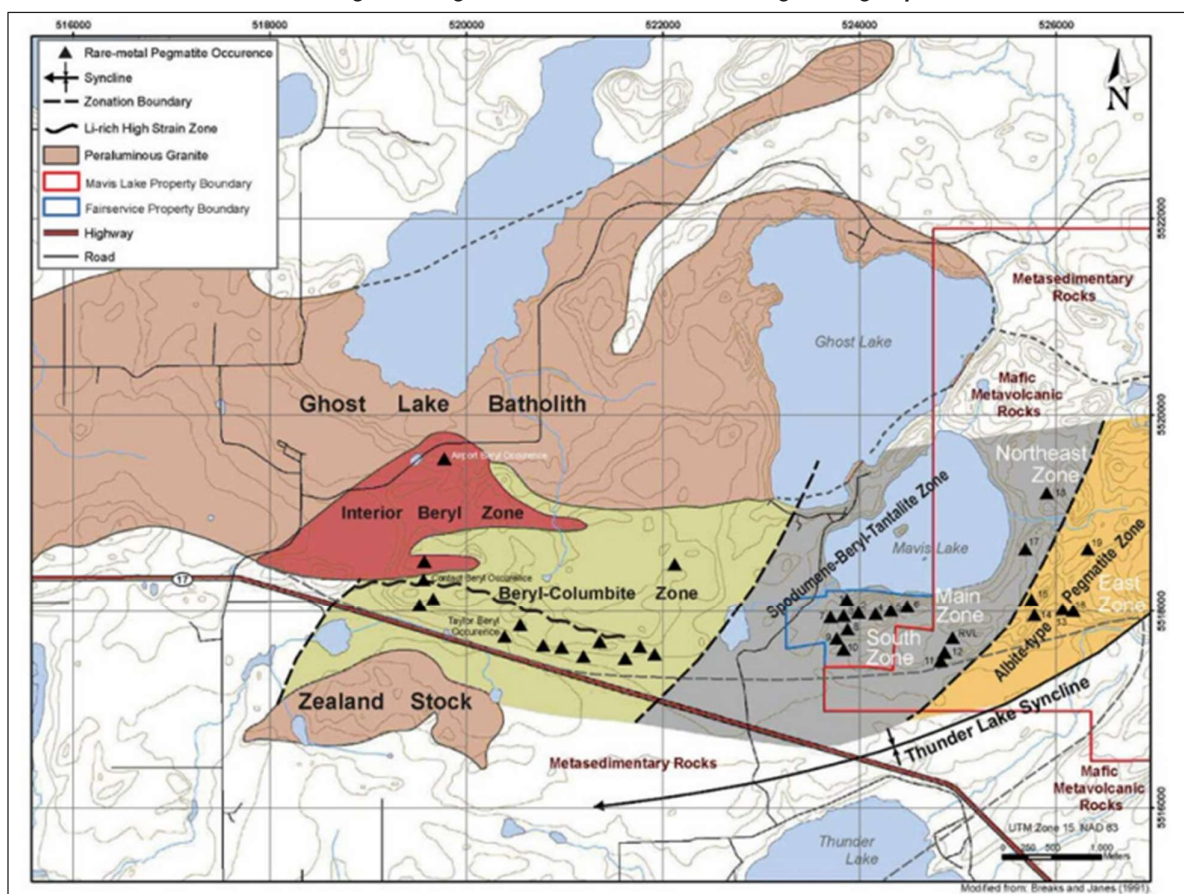


## Deposit Type and Exploration Thesis

Previous exploration campaigns at Mavis Lake have confirmed the presence of lithium bearing pegmatites.

The pegmatite occurrences at Mavis Lake are found within the correct zonation for lithium enrichment from the Ghost Lake Batholith, a fertile granite intrusion. The zonation of pegmatite occurrences can be seen in Figure 7.

**Figure 7: Regional zonation of Mavis Lake Pegmatite group**



Sources: Demmeier and Mercier (2011), modified from Breaks and James (1991)

The recently conducted airborne survey (see ASX announcement dated 01 February 2022) demonstrated the potential continuity of geological trends between Pegmatite 6 and Pegmatite 18. This potential continuity represents new areas of interest for the company that will be investigated via surface mapping and sampling with the aim of identifying new drill targets.

## The Lithium Industry in Ontario

### Canadian Government's C\$3.8 Billion Critical Minerals Strategy

Recently announced strategy by the Canadian government to boost domestic production of lithium, copper and other strategic minerals to help propel the country's efforts to become a key part of the global electric vehicle supply chain. The spending, announced during Canada's federal budget unveiling on 7 April 22, promises grants for mineral surveying, processing and recycling, as well as tax credits for development of new mines and subsidies for infrastructure.

#### *Ontario's First-Ever Critical Mineral Strategy*

In March of 2022 the government of Ontario announced their first-ever critical minerals strategy. The strategy aims to secure Ontario's position as a global leader of responsibly sourced critical minerals. To achieve this, collaboration is dependent between government, industry, Indigenous peoples, communities, and other stakeholders. Working together, this strategy will build a stronger, more resilient economy and revitalise local communities. The strategy is comprised of six pillars, or areas of government action, which will solidify Ontario's position as a global leader of responsibly sourced critical minerals. The pillars are; Enhancing geoscience information and supporting critical minerals exploration, Growing Domestic processing and creating resilient supply chains, Improving Ontario's regulatory framework, Investing in innovation, research, and development, Building economic development opportunities with Indigenous partners, and Growing labour supply and developing a skilled labour force.

#### *Tesla Battery Gear Manufacturing Plant Opens*

Tesla has recently announced the opening of a battery gear manufacturing plant in Markham, Ontario demonstrating the significant opportunity for Ontario to become one of the world's leading lithium provinces. The facility will be the first branded Tesla Canada manufacturing facility in Canada. A significant amount of activity in the lithium exploration sector is currently occurring in Ontario. Due to the quality of lithium assets in the region, the fundamental drivers behind the lithium market and the intent of North American manufacturers to source lithium for battery manufacturing from localised supply-chains, it is an excellent time to be gaining a foothold in Ontario.

#### *Thunder Bay Regional Lithium Refinery*

Avalon Advanced Materials Inc (TSX:AVL) has recently announced the agreement of a binding letter of intent to develop a regional battery supply chain in Ontario and elsewhere. The first step of this development will be establishing a lithium refinery in Thunder Bay, Ontario, approximately 350km from the Mavis Lake Lithium Project. The plant aims for a production capacity of 20,000 tonnes per annum of lithium hydroxide and/or lithium carbonate. Sources of lithium concentrate will be initially from Avalon's Separation Rapids Lithium Project while other projects begin production.

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

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#### **ABOUT CRITICAL RESOURCES LIMITED**

Critical Resources is a base metals and lithium exploration and development focused company headquartered in Perth, Western Australia and is listed on the Australian Securities Exchange (ASX:CRR). The Company has recently been undergoing a structured process of change at the Director and Executive level. These changes mark the commencement of a renewed focus by the Company on providing shareholder value through the exploration, development and advancement of the Company's long held NSW assets, newly acquired Lithium assets in Canada and Copper assets in Oman.



**FORWARD LOOKING STATEMENTS**

Information included in this release constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as “may”, “will”, “expect”, “intend”, “plan”, “estimate”, “anticipate”, “continue”, and “guidance”, or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company’s actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licences and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management’s good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company’s business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company’s business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company’s control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

**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.