

# Labrador Uranium Announces Completion of Initial Phase of Regional Exploration Targeting at the Central Mineral Belt Project in Labrador and Appoints Exploration Manager

Toronto, ON, February 22, 2023 – Labrador Uranium Inc. ("LUR", "Labrador Uranium", or "the Company" - <u>https://www.commodity-tv.com/ondemand/companies/profil/labrador-uranium-inc/</u>) (CSE: LUR, OTCQB: LURAF, FRA: EI1) is pleased to announce completion of the initial phase of its Regional Exploration Targeting, integrating a Mineral Systems Approach combined with Machine Learning, over its Central Mineral Belt Project (the "CMB" or "CMB Project") in Central Labrador, Canada (the "CMB Project"). The study successfully defined specific areas for further work and de-risks multiple project areas at varying stages.

Philip Williams, Executive Chairman and Interim CEO commented, "The Central Mineral Belt represents a unique exploration opportunity for LUR. Since its initial discovery in the 1950s, vast amounts of exploration data have been generated leading to the discovery and delineation of several deposits including at Moran Lake and Anna Lake. With most of these deposits found through simple surface prospecting, we believe the potential to find additional mineral deposits under cover remains strong. Our regional exploration, machine learning program was designed to compile and process the vast data over our large, 150,000+ hectare land position, and provide direction for future exploration programs. As part of the validation process, it was confirmed that the algorithm had a high success rate in predicting known mineralization. This gives us confidence in prioritizing new target areas, by extending the predictions to areas of potentially yet to be discovered mineralization. We look forward to ground truthing several of these areas during the upcoming 2023 field season."

### **Results of Machine Learning Workflow**

The initial phase of Artificial Intelligence ("AI") exploration targeting implements a Machine Learning ("ML") workflow, targeting the potential existence of unknown uranium and copper deposits. This was facilitated by the recent release and compilation of both public and private aeromagnetic, radiometric, and geological data over the entire Central Mineral Belt.

Integration of the Mineral Systems approach, focusing on the processes of source, transport, and deposition, assists in focusing the data collection and interpretation without relying on a single deposit "model". Using the location of known deposits and prospects allows the training of the ML algorithm, which objectively predicts the location of deposits without a preconceived notion of importance typically seen in one or more deposit types. The primary objective of this data-driven methodology is to reduce the targeting risk over the CMB Project at an early stage, preparing more target areas for direct detection methods such as drilling.



Each phase of the ML workflow reflects the increasing degrees of data availability over the areas in question. Each successive phase includes the feature data derived from previous phases. The coverage of each ML Phase can be seen in Figure 1, and the data used for each is shown in Table 1.



Figure 1: Data coverage over the Central Mineral Belt for each ML Phase. Phases which overlap include all relevant features. That is ML2 has all features seen in ML1, and so on.

Table 1: Data coverage for the various ML Phases. While ML1 includes only low resolution magnetic data it covers the largest area. ML4 includes all compiled data, but is more constrained geographically to the Moran Lake Area. This approach is intended to de-risk the CMB and advance multiple project areas at varying but appropriate stages.

	ML1	ML2	ML3	ML4
Low Resolution Magnetics	Included	Included	Included	Included
<b>High Resolution Magnetics</b>	-	Included	Included	Included
<b>Regional Structural Mapping</b>	-	Included	Included	Included
<b>Detailed Structural Mapping</b>	-	-	Included	Included
<b>Detailed Geological Mapping</b>	-	-	Included	Included
High Resolution Gravity	-	-	-	Included

The LUR team used up to 138 raw and derived features over a maximum of 18,616 km<sup>2</sup> at varying phases (Table 1).



Table 2: The input used in each phase varied based on the current availability of data in the Central Mineral Belt. Each successive phase included the features from previous phases.

Phase	Number of Features	Area
Phase 1	50	18,616 km <sup>2</sup>
Phase 1+2	101	5,599 km <sup>2</sup>
Phase 1+2+3	125	1,512 km <sup>2</sup>
Phase 1+2+3+4	138	962 km <sup>2</sup>



The initial results include the first four phases of the ML workflow (Figure 2).

Figure 2: Initial ML results from Phase 1 to 4.

Currently the ML model is being interrogated and refined using Shapely Additive Explanations ("SHAP") in order to identify and explain features that best predict deposit locations (Figure 2). This analysis is expected to inform conceptual geological interpretations and guide future data acquisition for improved ML results in future iterations of the ML process and its use on more refined target areas.

### **Next Steps**

In conclusion, the initial phase of LUR's Regional Exploration Targeting has successfully defined specific areas for further work and de-risked multiple project areas at varying stages in the CMB Project. The integration of the Mineral Systems approach with the Machine Learning workflow has reduced the targeting risk over the entire Central Mineral Belt at an early stage, preparing more target areas for direct detection methods such as drilling.

The ML model is being refined to identify and explain features that best predict deposit locations and to guide future data acquisition for improved ML results in future iterations of the ML process. This includes



the acquisition of new data and the compilation of further existing data for Phase 5 to increase the resolution and accuracy of predictions in the eastern portion of the CMB. The successful completion of this study gives LUR confidence in prioritizing new target areas, and they look forward to ground truthing several of these areas during the upcoming 2023 field season.

### **Appointment of Exploration Manager**

LUR is pleased to announce the appointment of Mr. Dean Courage as Exploration Manager. Mr. Courage has 15 years of experience as a Geologist including three years with Crosshair Exploration drilling the C-Zone uranium deposit in Labrador. He brings valuable local knowledge and field management expertise to the team. In addition, has also worked in prolific mining districts of Australia, Finland, and Canada for precious and base metal deposits. Dean obtained a master's degree in ore deposit research from Memorial University and is a registered Professional Geologist in Newfoundland and Labrador.

### **Technical Disclosure and Qualified Person**

The scientific and technical information contained in this news release was reviewed and approved by Matthew Melnyk, M.Sc., CPG, an advisor to LUR, who is a "Qualified Person" (as defined in NI 43-101).

### About Labrador Uranium Inc.

Labrador Uranium (CSE: LUR) is engaged in the exploration and development of uranium projects in Labrador, Canada and holds a dominant land position with 52 Mineral Licences covering 152,825 ha in the prolific Central Mineral Belt in central Labrador and the Notakwanon Project in northern Labrador. Currently, the Company is advancing the district scale CMB Project which includes the Moran Lake and Anna Lake Deposits. The CMB Project is adjacent to Paladin Energy's Michelin deposit, with substantial past exploration work completed, and numerous occurrences of uranium, copper and IOCG style mineralization.

### For More Information, Please Contact:

Philip Williams Executive Chairman and Interim CEO

**Investor Relations** 

Toll-Free: 1-833-572-2333

Email: info@labradoruranium.com

Website: www.labradoruranium.com



Twitter: @LabradorUr

LinkedIn: https://www.linkedin.com/company/labrador-uranium-inc/

In Europe: Swiss Resource Capital AG Jochen Staiger & Marc Ollinger info@resource-capital.ch www.resource-capital.ch

## **Cautionary Statement Regarding "Forward-Looking" Information**

This news release contains "forward-looking information" within the meaning of applicable Canadian securities laws. Forward-looking information includes, but is not limited to, potential mineralization, exploration activities and planned future exploration activities, and other activities, events or developments that are expected, anticipated or may occur in the future. Generally, but not always, forward-looking information and statements can be identified by the use of words such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "believes" or the negative connotation thereof or variations of such words and phrases or statements that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved" or the negative connotation thereof.

Forward-looking information and statements are based on our current expectations, beliefs, assumptions, estimates and forecasts about LUR's business and the industry and markets in which it operates. Such forward information and statements are based on numerous assumptions, including among others, that general business and economic conditions will not change in a material adverse manner, that locations of historical mineral resources estimates could lead to new mineralization discoveries and potentially be verified as current mineral resource estimates, that financing will be available if and when needed and on reasonable terms to conduct further exploration and operational activities, and that third party contractors, equipment and supplies and governmental and other approvals required to conduct the Company's planned exploration activities will be available on reasonable terms and in a timely manner. Although the assumptions made by LUR in providing forward-looking information or making forward-looking statements are considered reasonable by management at the time, there can be no assurance that such assumptions will prove to be accurate.

Forward-looking information and statements also involve known and unknown risks and uncertainties and other factors, which may cause actual results, performances and achievements of Labrador Uranium to differ materially from any projections of results, performances and achievements of Labrador Uranium expressed or implied by such forward-looking information or statements, including, among others: limited operating history, negative operating cash flow and dependence on third party financing, uncertainty of additional financing, delays or failure to obtain required permits and regulatory approvals, no known mineral resources/reserves, aboriginal title and consultation issues, reliance on key management and other personnel; potential downturns in economic conditions; availability of third party contractors;



availability of equipment and supplies; failure of equipment to operate as anticipated; accidents, effects of weather and other natural phenomena and other risks associated with the mineral exploration industry; changes in laws and regulation, competition, and uninsurable risks, community relations, delays in obtaining governmental or other approvals and the risk factors with respect to Labrador Uranium set out in LUR's listing statement dated March 2, 2022 filed with the Canadian securities regulators and available under LUR's profile on SEDAR at www.sedar.com.

Although LUR has attempted to identify important factors that could cause actual actions, events or results to differ materially from those contained in the forward-looking information or implied by forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking information and statements will prove to be accurate, as actual results and future events could differ materially from those anticipated, estimated or intended. Accordingly, readers should not place undue reliance on forward-looking statements or information. LUR undertakes no obligation to update or reissue forward-looking information as a result of new information or events except as required by applicable securities laws.