

PRESS RELEASE

Critical Elements Lithium Identifies New LCT Pegmatite Targets and Announces a Surface Exploration Program in the Nemaska Belt Portfolio

May 31st, 2023 - MONTRÉAL, QUÉBEC – Critical Elements Lithium Corporation (TSX-V: CRE) (US OTCQX: CRECF) (FSE: F12) ("**Critical Elements**" or the "**Company**") is pleased to report the identification of new lithium-cesium-tantalum pegmatite ("LCT pegmatite") trends following advanced geochemical interpretations made by ALS GoldSpot Discoveries Ltd. ("ALS GoldSpot"), and announces a surface exploration program at Duval, Lemare, Valiquette, Arques, Caumont, Dumoulon, New Block 1 to 6, Rose and Rose Nord properties.

Critical Elements has actively explored its Nemaska belt properties (Figure 1) since 2021, which led to the discovery in 2022 of new multi-kilometre-long LCT pegmatite prospective trends on the Company's 100% owned Lemare and Duval properties ([see press release dated October 27, 2022](#)). Following the 2022 field program, the Company mandated ALS GoldSpot to conduct a geochemical interpretation of the Company's multi-element rock sample data, along with legacy geochemical data, for exploration vectoring.

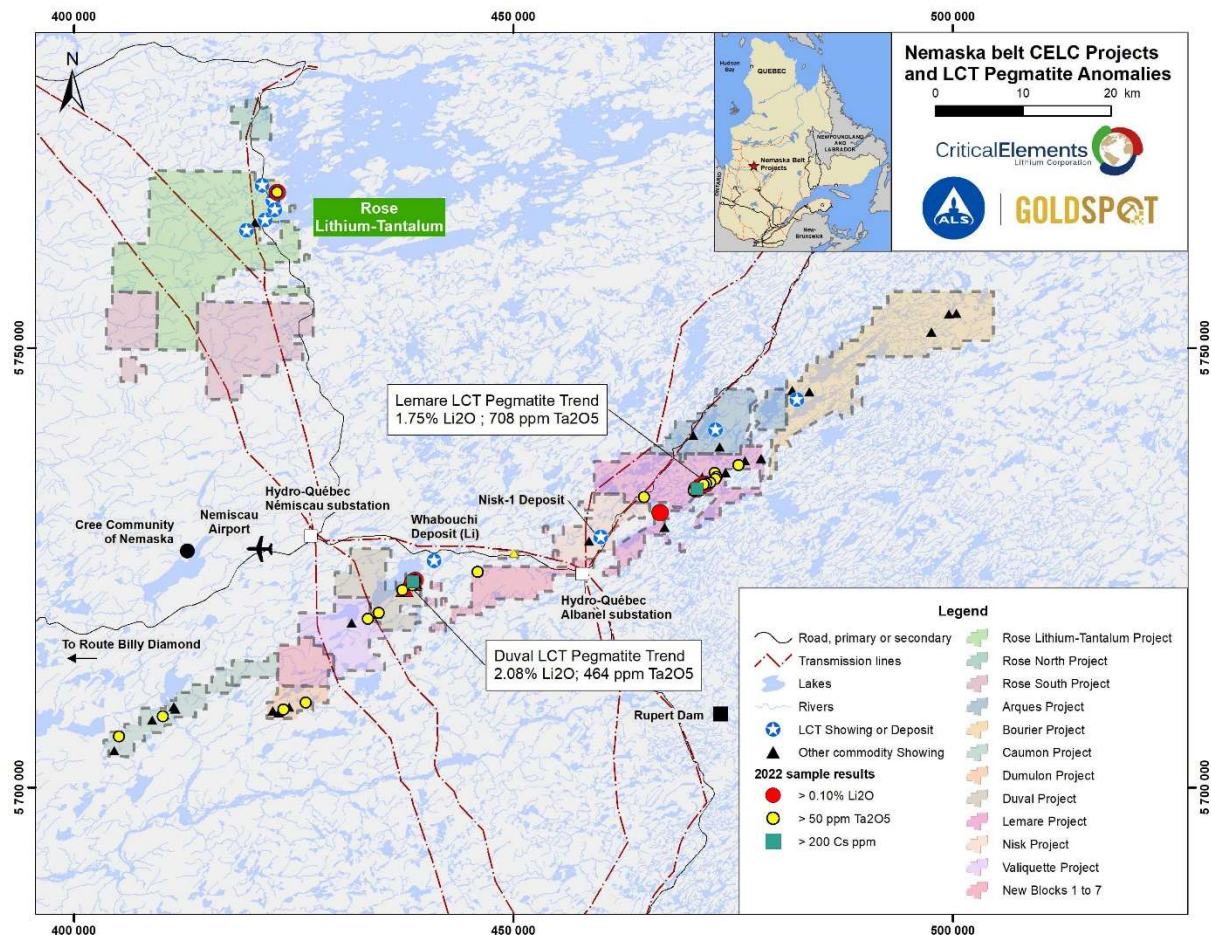


Figure 1 – Nemaska Belt Property Portfolio Location Map.

Geochemical Vectoring

A total of 3,900 surface rock samples were collected in 2021 and 2022, and then prepared by four-acid digestion and analyzed by ICP-MS61 for 47 elements at ALS Laboratory in Val d'Or. Geochemical vectoring effectively isolated fertile pegmatite suites from unprospective rock samples.

ALS GoldSpot applied a signal enhancement and denoising technique coupled with a density-based clustering method on selective immobile elements – lithium, cesium, tantalum elements were not included - to characterize geochemical populations. This approach isolated a unique geochemical signal associated with mineralized LCT pegmatite without considering lithium, cesium or tantalum as input elements, and resulted in the identification of 162 pegmatite samples.

The distribution of fertile LCT pegmatite environments is consistent with interpreted major SW-NE structures that span the Company's Nemaska belt properties (Figure 2). The geochemical approach offers a new outlook on the multi-elements geochemical database to orient early lithium exploration.

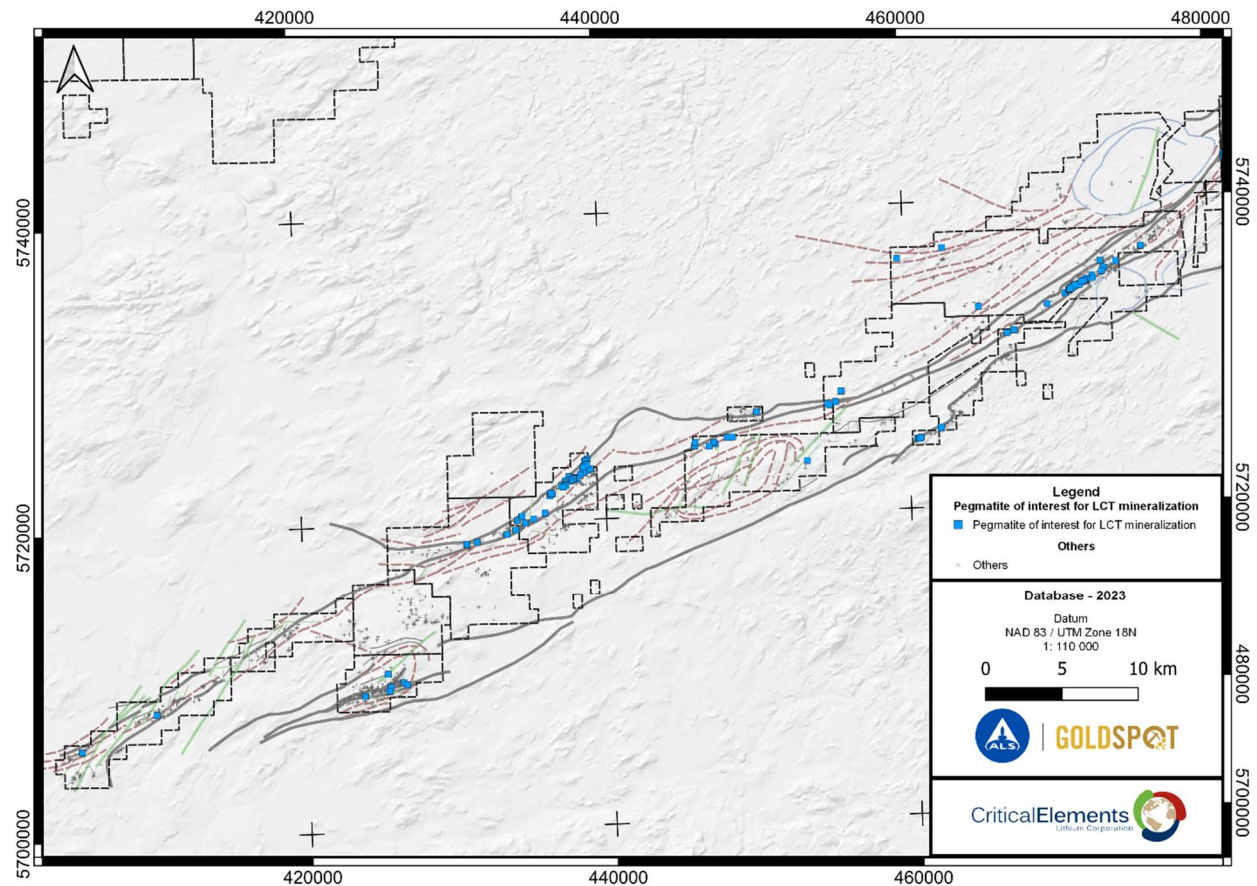


Figure 2 – Geochemical Vectoring of LCT pegmatite at the Nemaska belt property portfolio.

2023 Surface Exploration Program

The Company announces a surface exploration program focussed on prospecting the identified fertile pegmatite environments. Starting early June, the 12-week program will consist of prospecting, mapping and trenching. The Company has mandated ALS GoldSpot to manage the 2023 exploration program, in collaboration with the Company's teams. Following the surface exploration program, the results will inform a drill program designed to confirm in three dimensions the discovery of new spodumene-bearing pegmatite bodies.

Qualified persons

Ludovic Bigot, P. Geo., Senior Project Manager at ALS GoldSpot Discoveries Ltd., and Qualified Person under NI 43-101 on standards of disclosure for mineral projects, has prepared and reviewed the content of this press release.

About Critical Elements Lithium Corporation

Critical Elements aspires to become a large, responsible supplier of lithium to the flourishing electric vehicle and energy storage system industries. To this end, Critical Elements is advancing the wholly owned, high purity Rose lithium project in Québec, the Corporation's first lithium project to be advanced within a land portfolio of over 1,000 square kilometers. On June 13th, 2022, the Corporation announced results of a feasibility study on Rose for the production of spodumene concentrate. The after-tax internal rate of return for the Project is estimated at 82.4%, with an estimated after-tax net present value of US\$1.9 B at an 8% discount rate. In the Corporation's view, Québec is strategically well-positioned for US and EU markets and boasts good infrastructure including a low-cost, low-carbon power grid featuring 94% hydroelectricity. The project has received approval from the Federal Minister of Environment and Climate Change on the recommendation of the Joint Assessment Committee, comprised of representatives from the Impact Assessment Agency of Canada and the Cree Nation Government and also received the Certificate of Authorization pursuant to section 164 of Québec's *Environment Quality Act* from the Québec Minister of the Environment, the Fight against Climate Change, Wildlife and Parks.

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Although Critical Elements has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. Factors that may cause actual results to differ materially from expected results described in forward-looking information include, but are not limited to: results of the Corporation's 2023 exploration program and effects on the Corporation's stated objectives, as well as those risk factors set out in the Corporation's Management Discussion and Analysis for its most recent quarter ended February 28, 2023 and other disclosure documents available under the Corporation's SEDAR profile. Forward-looking information contained herein is made as of the date of this news release and Critical Elements disclaims any obligation to update any forward-looking information, whether as a result of new information, future events or results or otherwise, except as required by applicable securities laws.