

PRESS RELEASE

Critical Elements Lithium Announces the Continued Strengthening of its Board of Directors with Two New Appointments

July 25, 2022 - MONTRÉAL, QUÉBEC – Critical Elements Lithium Corporation (TSX-V: CRE) (US OTCQX: CRECF) (FSE: F12) ("**Critical Elements**" or the "**Corporation**") is pleased to announce the appointments of Ms. Maysa Habelrih and Ms. Vanessa Laplante to its Board of Directors.

Ms. Maysa Habelrih is a result-oriented executive and board director leveraging global experience and a track record of delivering operational excellence and transforming business objectives into bottom line growth within complex environments. She has expertise in international joint ventures management and board oversight with solid knowledge of environmental, social, and corporate governance (ESG) business practices. Over the past year, Maysa has been the CEO of Mouvement Québécois de la Qualité, a non-profit focused on increasing the competitiveness and productivity of Quebec organizations. From 1989 to 2019, she worked for Alcan, which company became Rio Tinto Aluminium in 2007. Maysa ending as General Manager / Vice-President Joint Ventures with full governance and fiscal accountability for nine joint venture operations globally, featuring \$2 billion in revenues, \$400 million in EBITDA and 1,900 direct and indirect employees. This included the oversight of the successful design and implementation of an \$850 million mine expansion project in Guinea. Maysa holds Bachelor and Master degrees in Chemical Engineering from McGill University in Montréal, as well as an International Masters Program in Practicing Management (IMPM) which is offered in partnership by INSEAD, McGill University, and 3 others universities.

Ms. Vanessa Laplante has more than 30 years of experience in finance and taxation, including 16 years in the mining industry. She is a leader in her field of specialization, mining taxation, which has allowed her to be recognized as Chair of the Tax Committee of the Association Minière du Québec since 2011, and Chair of the Board of Directors of the Association Minière du Québec since June 2021. Since 2014, Vanessa is the Tax and Montreal office Director, as well as treasurer, for Canadian Malartic Partnership, a joint venture between Agnico Eagle Mines Limited and Yamana Gold Inc., which operates Canada's largest open pit gold mine. From 2019 to 2020, she was a board member and Chair of the Audit and Risk Management Committee of Nemaska Lithium Inc. As part of her functions at Osisko Mining Corporation from 2010 to 2014 she was a member of the Audit Committee. From 2015 to 2019 Vanessa was a member of the advisory committee on the simplification of the mining royalty regime, formed by the Ministry of Natural Resources of Québec. Vanessa holds a Bachelor of Business Administration from the University of Sherbrooke (1991) and is a Member of the Order of Chartered Professional Accountants of Quebec (CPA).

In connection with their appointments, Ms. Habelrih and Ms. Laplante have each been awarded 200,000 stock options of the Corporation at an exercise price of \$1.35 per share for a term of five years.

Eric Zaunscherb, Chair of the Board of Critical Elements commented: "It is a pleasure to welcome Maysa and Vanessa to our board. Once we receive our Certificate of Authorization from the Province of Quebec, we will be well-positioned to finance and advance the high-purity Rose lithium-tantalum project into production. This quality Board of Directors now has the requisite skill set to support management at this intense and exciting time, for the benefit of the Corporation's stakeholders."

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. Rose is the Corporation's first lithium project to be advanced within a land portfolio of over 700 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 93% 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; The Corporation is working to obtain similar approval under the Québec environmental assessment process. The Corporation also has a good, formalized relationship with the Cree Nation.

For further information, please contact:

Patrick Laperrière
Director of Investor Relations and Corporate Development
514-817-1119
plaperrière@cecorp.ca
www.cecorp.ca

Jean-Sébastien Lavallée, P. Géo. Chief Executive Officer 819-354-5146 jslavallee@cecorp.ca www.cecorp.ca

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Cautionary statement concerning forward-looking statements

This news release contains "forward-looking information" within the meaning of Canadian Securities legislation. Generally, forward-looking information can be identified by the use of forward-looking terminology such as "scheduled", "anticipates", "expects" or "does not expect", "is expected", "scheduled", "targeted", or "believes", 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". Forward-looking information contained herein include, without limitation, statements relating to the completion of the 2022 exploration program and its related objectives, the completion of the provincial permitting process and its potential positive effects on the Corporation and the Project, the completion of engineering study for a chemical plant to produce high quality lithium hydroxide monohydrate, the preparation of the front-end engineering design work for the process plant and related infrastructure, the announce, on June 13th, 2022, of results of a feasibility study on Rose for the production of spodumene concentrate, off-take agreements and purchasers for the Corporation's products, securing sufficient financing on acceptable terms and continued positive discussions and relationships with local communities and stakeholders. Forward-looking information is based on assumptions management believes to be reasonable at the time such statements are made. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking information.

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 2022 exploration program and effects on the Corporation's stated objectives, results of the engineering study for a chemical plant to produce high quality lithium hydroxide monohydrate, issues encountered in connection with the front-end engineering work, impact of the Updated Feasibility Study on the Project, Critical Elements' ability to secure sufficient financing to advance and complete the Project, uncertainties associated with the Corporation's resource and reserve estimates, uncertainties regarding global supply and demand for lithium and tantalum and market and sales prices, uncertainties associated with securing off-take agreements and customer contracts, uncertainties with respect to social, community and environmental impacts, uncertainties with respect to optimization opportunities for the Project, as well as those risk

factors set out in the Corporation's year-end Management Discussion and Analysis dated August 31, 2021 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.