



## PRESS RELEASE

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### CRITICAL ELEMENTS RECEIVES POSITIVE MATERIAL TESTING RESULTS FROM MULTIPLE GLASS AND CERAMIC MANUFACTURERS

**AUGUST 14, 2014** – MONTREAL, QUEBEC – **Critical Elements Corporation** (TSX-V: CRE) (US OTCQX: CRECF) (FSE: F12) is pleased to announce that its low-iron lithium concentrate has been successfully tested by ceramic and glass manufacturers. Samples sent to multiple end-users for testing in May all tested positively.

As a result of the positive testing, the Company will be able to add a third revenue stream to its commercialization plans by diversifying its finished product output to de-risk the ramp-up of the operation. This positive addition to the business plan is based on last year's optimization program, which enabled the Company to change the product output sequence and generate finished material throughout the transformation process. The new flowsheet design has the flotation plant producing a tantalite concentrate from magnetic separation and a spodumene concentrate (lithium oxide concentrate) by flotation. Additionally, the low-iron portion of the concentrate will be suitable for sale to the glass and ceramic industry

The remainder of the spodumene concentrate (lithium oxide concentrate) would then be put through the transformation plant (carbonation plant) to produce battery-grade lithium carbonate as a secondary transformation.

As mentioned in our August 5<sup>th</sup> press release, overall purity (calculated by subtracting the main impurities) was as high as **99.98%**, exceeding the requirements for **battery-grade lithium carbonate**.

Critical Elements will thus diversify its material output with at least three different products:

- 1-Tantalum concentrate
- 2-Low-iron lithium concentrate
- 3-Battery-grade lithium carbonate

Also, the August 5<sup>th</sup> press release noted that the Company will begin production testing of lithium hydroxide (LiOH) from the lithium carbonate (Li CO ) with the aim of proving an integrated production system for the two lithium products and generating greater flexibility in terms of market opportunities.

A final component of the planned testing is the investigation of the potential for recovery of by-products such as alumina (in the form of alumina tri-hydrate -ATH), for which there is currently strong market demand, primarily for use as a fire retardant, and silica (as pure silicates). It is worth noting that in addition to generating more value for the project, recovery of these by-products will also significantly reduce the solid waste from the process, i.e., the project's environmental impact. These tests will be performed at XSTRATA's pyrometallurgical laboratory (**XPS Consulting & Testwork Services**) in Falconbridge, Ontario.

Management is also planning to return to Japan in September to expedite negotiations aimed at securing an off-take agreement(s) for its lithium carbonate and tantalum concentrate. In addition, management will meet with glass and ceramic manufacturers who tested the material to advance discussion for off-take agreements.

"We are very enthusiastic about the quality of the materials produced from the Rose lithium-tantalum deposit. To date, high-value material has tested positively by leading end-users, which is an important endorsement of our product. Furthermore, our recently-announced high-purity lithium carbonate results were very well received by end-users," said Jean-Sébastien Lavallée, President and Chief Executive Officer.

#### **ABOUT CRITICAL ELEMENTS CORPORATION**

Critical Elements Corporation is actively developing its 100%-owned Rose lithium-tantalum flagship project in Quebec.

**A recent financial analysis (Technical Report and preliminary economic assessment (PEA) on the Rose Lithium-Tantalum project, Genivar, December 2011) of the Rose project based on price forecasts of US\$260/kg (\$118/lb) for Ta<sub>2</sub>O<sub>5</sub> contained in a tantalite concentrate and US\$6,000/t for lithium carbonate (Li<sub>2</sub>CO<sub>3</sub>) showed an estimated after-tax Internal Rate of Return (IRR) of 25% for the Rose project, with an estimated Net Present Value (NPV) of CA\$279 million at an 8% discount rate. The payback period is estimated at 4.1 years. The pre-tax IRR is estimated at 33% and the NPV at \$488 million at a discount rate of 8%. (Mineral resources that are not mineral reserves and do not have demonstrated economic viability). (See press release dated November 21, 2011.)**

**The operation is scheduled to produce 26,606 tons of high purity (99.9% battery grade) Li<sub>2</sub>CO<sub>3</sub> and 206,670 pounds of Ta<sub>2</sub>O<sub>5</sub> per year over a 17-year mine life.**

The project hosts a current **Indicated resource of 26.5 million tonnes of 1.30% Li<sub>2</sub>O Eq. or 0.98% Li<sub>2</sub>O and 163 ppm Ta<sub>2</sub>O<sub>5</sub> and an Inferred resource of 10.7 million tonnes of 1.14% Li<sub>2</sub>O Eq. or 0.86% Li<sub>2</sub>O and 145 ppm Ta<sub>2</sub>O<sub>5</sub>.**

#### **FOR MORE INFORMATION:**

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This news release contains "forward-looking information" including without limitation statements relating to realization of resource estimates, reduction of capital and operating costs, success of mining operations and the ranking of the project in terms of production. Readers should not place undue reliance on forward-looking statements.

Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Until a positive feasibility study has been completed, and even with the completion of a positive feasibility study, there are no assurances that the Rose project will be placed into production. Factors that could affect the outcome include, among others: the actual results of development activities; project delays; inability to raise the funds necessary to complete development; general business, economic, competitive, political and social uncertainties; future prices of metals; availability of alternative lithium or tantalum sources; actual rates of recovery; conclusions of economic evaluations;

changes in project parameters as plans continue to be refined; accidents, labour disputes and other risks of the mining industry; political instability, terrorism, insurrection or war; delays in obtaining governmental approvals, necessary permitting or in the completion of development or construction activities. For a more detailed discussion of such risks and other factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements, refer to the Company's filings with Canadian securities regulators available on SEDAR at [www.sedar.com](http://www.sedar.com).

Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results to differ from those anticipated, estimated or intended. Forward-looking statements contained herein are made as of the date of this news release and the Company disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or results or otherwise, except as required by applicable securities laws.

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