Critical Elements Reports Robust Tantalum Recoveries in Optimization Batch Testing With Up to 84% Ta2O5 Recovery Compared to 50% in Initial PEA

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MONTREAL, QUEBEC--(Marketwired - Sep 23, 2013) - **Critical Elements Corporation (TSX VENTURE:CRE)(OTCQX:CRECF) (FRANKFURT:F12)** is pleased to report the latest results of the optimization metallurgical program underway at SGS Canada Inc. (Lakefield) for its Rose lithium-tantalum deposit in James Bay, Quebec.

The program has resulted in significant tantalite optimization recoveries, achieving tantalum recoveries of up to **84%** with a concentration grade of 11,713 g/t Ta (14,303 g/t Ta_2O_5) in laboratory batch tests using wet high intensity magnetic separation (WHIMS). The average Ta recovery rate for the program stands at **77.6%** with a concentration grade of 10,700 g/t Ta (13,066 g/t Ta_2O_5) in batch magnetic separation tests (see table below).

The Corporation expects these results to dramatically increase the projected amount of tantalite (Ta_2O_5) produced from the Rose project, although additional testing is needed to confirm this with greater certainty. The initial economic numbers from the December 2011 PEA analysis were based on a tantalum recovery of 50%. The latest results indicate a **27.6%** increase in average recovery compared to the PEA figures, which could potentially mean more than **100,000** additional pounds of tantalite (Ta_2O_5) produced per year. The estimated final recovery rate and quantity of tantalite to be produced will be better defined by pilot plant testing, as well as in the upcoming feasibility study.

"To the best of our knowledge, the Rose lithium-tantalum deposit is the only new economic conflict-free tantalum industrial-scale source in the world. The recent robust recoveries and high purity results from the optimization testing program prove the stand-alone class of the deposit, which has the potential to become a key source of strategic metal supply," said Jean-Sébastien Lavallée, President and Chief Executive Officer of Critical Elements Corporation.

Results of Batch Magnetic Separation Tests to Recover Ta Concentrate

Test No.	Assay Ta g/t	Assay Ta_2O_5 g/t	Distribution % Ta
F10	11,713	14,303	80.3
F11	10,388	12,685	84.0
F12	11,200	13,676	73.9
F13	10,200	12,455	77.6
F14	10,000	12,211	72.2
AVERAGE	10,700	13,066	77.6

Mr. Lavallée said: "This new forecast level of tantalite concentrate production could make Critical Elements one of the largest tantalum producers in the world. Recent tantalum mine closures in Canada, Mozambique and Australia are creating a major shortage of supply from which we expect to benefit".

The results of the optimization metallurgical testing program for the processing of the ore from the Rose deposit were generated by SGS Canada Inc. in Lakefield, Ontario. The tests were carried out on a composite sample from surface outcrop of the Rose mineralized zone.

The recent results from the optimization program are very positive and will be used to finalize the flow sheet for the pilot plant program. The pilot plant program will produce enough material to proceed with a flotation or other suitable beneficiation methods aimed at increasing the grade of the tantalite concentrate.

As announced in press release dated September 5th, 2013, the program has also resulted in the successful optimization of lithium recovery rates and grades. Batch flotation tests yielded an average recovery of **90.88% at 6.20% Li_2O**, but most importantly, the flow sheet is substantially simplified. Moreover, the reagents used in the optimization program are significantly cheaper. This could dramatically reduce the mill construction costs (CAPEX) and the operating costs (OPEX) to produce the Li_2O concentrate. These assumptions should be confirmed by the upcoming feasibility study.

In addition to recovery and grade testing, the iron content of spodumene grains and the flotation concentrate as a whole have been determined. Analytical results indicate that the average spodumene grain contains **0.13% Fe_2O_3** as solid solution in its crystal structure. To the best of the Company's knowledge, this is the lowest spodumene iron substitution seen in Quebec and Ontario lithium deposits. As a result, the flotation concentrate as a whole may contain **<0.3% Fe_2O_3**. Due to the low iron content, the lithium concentrate could also be appropriate for use in the ceramics industry. The roasted concentrate is white as opposed to the light reddish colour normally seen in spodumene concentrates with high iron content. Pictures are available on the Company's website at: www.cecorp.ca.

A small batch of flotation concentrate has been collected and roasted and sent to SGS Canada Inc.'s hydrometallurgical testing department to start the carbonation optimization program.

The laboratory is planning to produce more spodumene concentrate to be distributed to various glass and ceramic producers for specification evaluation.

Pictures of the laboratory testing are available on the Company's website at: www.cecorp.ca.

The objective of the program was to optimize the flow sheet for producing a spodumene concentrate with a minimum grade of 6% Li_2O at a recovery of about 90% for hydrometallurgical lithium extraction. The next step is the Phase 2 program aimed at optimizing the purity of the lithium carbonate produced by bi-carbonation to create a final flow sheet. Another objective was to improve the recovery of tantalum as a by-product, currently at about 60%. The final flow sheet will be used to advance the pilot plant for the feasibility study.

The Critical Elements team is also pursuing its discussions regarding potential long-term sales contracts with a number of potential lithium carbonate and tantalite end-users.

Jean-Sébastien Lavallée (OGQ #773), geologist, shareholder and President and Chief Executive Officer of the Company and a Qualified Person under NI 43-101, has reviewed and approved the technical content of this release.

About Critical Elements Corporation

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

A recent financial analysis of the Rose project based on price forecasts of US$260/kg ($118/lb) for Ta_2O_5 contained in a tantalite concentrate and US$6,000/t for lithium carbonate (Li_2CO_3) 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_2CO_3 and 206,670 pounds of Ta_2O_5 per year over a 17-year mine life.

The project hosts a current NI 43-101-compliant **Indicated resource of 26.5 million tonnes of 1.30% Li_2O Eq. or 0.98% Li_2O and 163 ppm Ta_2O_5 and an Inferred resource of 10.7 million tonnes of 1.14% Li_2O Eq. or 0.86% Li_2O and 145 ppm Ta_2O_5.**

The Company is presently at the feasibility study stage on the Rose project.

Critical Elements' portfolio also includes rare-earth and tantalum-niobium projects in the Rocky Mountains of British Columbia and in Quebec, as well as a 50% interest in the Croinor project, which is located in Quebec and hosts a current NI 43-101-compliant Measured and Indicated resource of 506,700 tonnes at 10.66 g/t Au, for 173,700 ounces of gold at a 5 g/t cut-off.

Cautionary Statement Concerning Forward-Looking Statements

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.

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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