

# PRESS RELEASE

## MR. DAVID J. BUCKLEY APPOINTED AS CHIEF PROCESSING OPERATOR

**DECEMBER 9, 2015** – MONTREAL, QUEBEC – **Critical Elements Corporation** (TSX-V: CRE) (US OTCQX: CRECF) (FSE: F12) is pleased to announce the appointment of Mr. David J. Buckley as Chief Processing Operator of the Corporation for the Rose Lithium-Tantalum Project.

Mr. David J. Buckley graduated from Virginia Polytechnic Institute in 1976 with a B.S. in Chemical Engineering. He was the Corporate Process Engineer working to support inorganic, brine-based chemical production processes for finished products, including lithium carbonate, lithium hydroxide and lithium chloride, for Rockwood Lithium Inc. from 2006 to 2015. He acted as a contractor for Southern Design Services and PenPower from 2004 to 2006. He was Engineer Associate and Senior Process Engineer for FMC Lithium from 1992 to 2004.

# His key accomplishments include:

- Acted as Lead Process Engineer on a design team for a battery-grade lithium expansion in Chile with Rockwood Lithium.
- Provided process design for a new lithium hydroxide plant utilizing the traditional carbonate and lime method.
- Proposed and later conducted piloting of an alternative method of lithium hydroxide production via an electrochemical process, building on previous work done by Rockwood Lithium.
- Performed conceptual design and piloting of an electrochemical (bipolar electro dialysis) method for recovery of lithium from potential virgin or recycled lithium waste streams.
- Recommended, designed, wrote the capital authorization for and supervised the installation of an improved solid-liquid separation process, a dryer and a packaging system for lithium hydroxide monohydrate.
- Acted as the production manager responsible for the commercialization of a new formulation of cathodic material for lithium batteries.
- Acted as the primary engineering resource for inorganic lithium salts production at the main chemical plant of FMC Lithium; developed and executed the design for control of the waste stream from the lithium hydroxide plant.

"With his many years of experiences in the lithium processing industry with companies like FMC Lithium and Rockwood Lithium, Mr. Buckley will bring important expertise for proper execution of each step necessary for the successful ramping up of future Lithium Carbonate production from the Rose Lithium-Tantalum project with optimal capital and operation costs," said Jean-Sébastien Lavallée, President and Chief Executive Officer. "His expertise in lithium hydroxide processing and production will also open up the possibility of producing Lithium Hydroxide once commercial-scale production of Lithium Carbonate is in place. It will give Critical Elements the opportunity to capture all segments of the lithium market with spodumene concentrate for the Glass and Ceramic industry, Lithium Carbonate, and potentially Lithium Hydroxide for the battery market and unique conflict-free tantalum concentrate for the Capacitor and Super-Alloy market."

The Corporation has granted Mr. Buckley 250,000 stock options, each of which entitles its holder to acquire one common share for \$0.20 until December 8, 2020. Mr. Buckley will be paid on a consultant basis.

Jean-Sébastien Lavallée (OGQ #773), geologist, shareholder, 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**

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  $Ta_2O_5$  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 are not mineral reserves and do not have demonstrated economic viability). (The preliminary economic assessment is preliminary in nature). (See press release dated November 21, 2011.)

The conclusions of the PEA indicate the operation would support a production rate of 26,606 tons of high purity (99.9% battery grade)  $\text{Li}_2\text{CO}_3$  and 206,670 pounds of  $\text{Ta}_2\text{O}_5$  per year over a 17-year mine life.

The project hosts a current 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  $Ta_2O_{5}$ .

#### FOR MORE INFORMATION:

Jean-Sébastien Lavallée, P.Geo. President and Chief Executive Officer 819-354-5146 president@cecorp.ca www.cecorp.ca

#### **Investor Relations:**

Paradox Public Relations 514-341-0408

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