



PRESS RELEASE

PRE-TAX NET PRESENT VALUE OF CA\$488 MILLION AT AN 8% DISCOUNT RATE AND INTERNAL RATE OF RETURN OF 33% FOR THE ROSE TANTALUM-LITHIUM PROJECT

NOVEMBER 21, 2011 – MONTRÉAL, QUÉBEC – **CRITICAL ELEMENTS CORPORATION** (TSX.V: CRE) (US OTCQX: CRECF) (FSE: F12) has received the results of a Preliminary Economic Assessment ("PEA") for its 100%-owned Rose Tantalum-Lithium deposit ("Rose Project") located in the James Bay Area of northern Quebec. The PEA study was completed by GENIVAR with the collaboration of BUMIGEME and InnovExplo.

The Rose Tantalum-Lithium Project is located in the *Quebec Plan Nord* designated area where the government is fast-tracking the construction of new infrastructures, accelerating permitting and assisting project financing on a case by case basis.

HIGHLIGHTS OF THE PRELIMINARY ECONOMIC ASSESSMENT STUDY INCLUDE:

The financial analysis of the Rose Project was based of price forecasts of US\$260/kg (\$118/lb) for Ta₂O₅ contained in a tantalite concentrate and US\$6,000/t for lithium carbonate (Li₂CO₃).

The after tax Internal Rate of Return (IRR) of the Rose Project is estimated at 25% , with a 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%.

NPV AS A FUNCTION OF VARIOUS DISCOUNT FACTORS Critical Elements Corporation – Rose Project

DISCOUNT FACTOR	NPV (before taxes)	NPV (after taxes)
0%	CA\$1,078,611,885	CA\$665,122,755
5.0%	CA\$651,789, 479	CA\$387,145,131
8.0%	CA\$488,360,406	CA\$279,358,227
10.0%	CA\$403,744,658	CA\$223,097,949
12.0%	CA\$333,626,451	CA\$176,175,210

The economic analysis is based on a mine life of 17 years, estimated capital costs of CA\$268.6 million and operating costs of CA\$67.65/tonne of ore milled. Ongoing capital investment was estimated at CA\$36.8 million. Calculations include contingencies of 10% and assumed parity between the Canadian and the American dollars.

A sensitivity analysis was completed on the Rose Project cash flow using a ± 15% variance on commodities prices, capital expenditures, operating costs and US\$/CA\$ exchange rate. It demonstrates that the Rose

Project is highly sensitive to changes in lithium carbonate price and has a low sensitivity to fluctuations in the tantalite concentrate price, operating costs and capital expenditures.

PROPERTY

The Rose property comprises 636 active mining titles covering a total of 33,307 ha. The southeast boundary of the Rose property is approximately 30 km north of the community of Nemiscau in the James Bay area of the province of Québec. Geologically, the property is located in the northeast part of the Archean Superior Province of the Canadian Shield craton, within the southern portion of the Middle and Lower Eastmain Greenstone Belt ("MLEGB"). Although the MLEGB displays a wide variety of lithologies, most of the claims of the Rose property are underlain by intrusives.

MINERAL RESOURCE ESTIMATE

Based on an extensive drilling campaign (181 holes) completed in 2010-2011 on the Rose property, InnovExplo completed a Mineral Resources estimate using a cut-off grade of 66\$/t. The Mineral Resources valuation took into consideration Li and Ta recovery as well as current market conditions. A summary of the National Instrument 43-101 compliant Mineral Resources for the Rose Tantalum-Lithium deposit is as follows:

MINERAL RESOURCES ESTIMATE – July 20th, 2011 Critical Elements Corporation – Rose Project

Mineral Resource	Tonnes (x 1,000)	Li₂O equivalent (%)	Li₂O (%)	Ta₂O₅ (ppm)	Rb (ppm)	Cs (ppm)	Be (ppm)	Ga (ppm)
Indicated Mineral Resource	26,500	1.30%	0.98%	163	2,343	92	128	66
Inferred Mineral Resource	10,700	1.14%	0.86%	145	1,418	74	121	61

PEA

The parameters used for the PEA include:

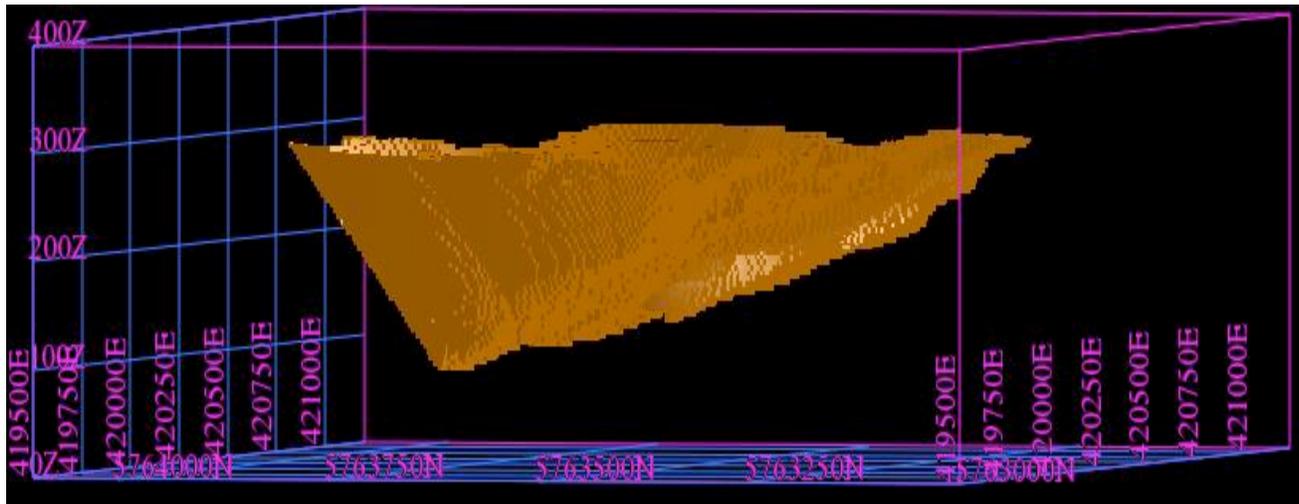
- A 1,500,000 tpy open-pit mine using diesel hydraulic equipment.
- A concentrator at the mine site (crushing, grinding, flotation circuits) with a nominal capacity of 4,600 tpd of ore at 90% availability.
- A lithium bicarbonatation plant at the mine site to convert the lithium oxide ore (Li₂O) to lithium carbonate (Li₂CO₃).

MINING

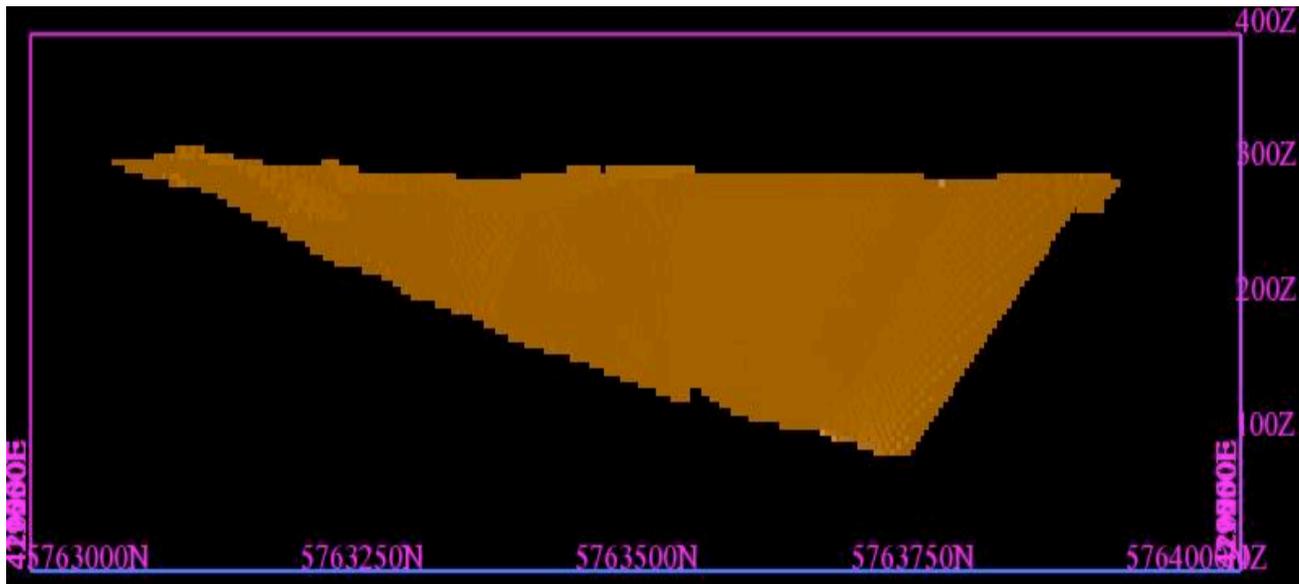
The Rose deposit is a flat lying and thick multi-structure located near the surface. The ore will be mined using a conventional open-pit approach to a depth of 200 m. The Whittle software, a numerical 3D mine optimization tool, was used to assess numerous scenarios. Parameters used to optimize the pit geometry and maximize profitability included a bench face angle of 50°, triple benching arrangement, and an overall slope angle of 50°. The proposed open-pit design did not include geotechnical test results.

The following figure shows an isometric view of the open-pit outline retained for the PEA. The total amount of material to be mined is estimated at 193 Mt consisting of 24 Mt of ore and 169 Mt of waste for a stripping ratio of 7:1. Mining equipment will include down-the-hole ("DTH") drill rigs well suited to large-scale production work and capable of drilling holes ranging between 110 to 203 mm in diameter. 33 tonne hydraulic shovels and 27 tonne backhoes will be used to load ore and waste into 150 tonne trucks. The proposed pit will be approximately 1.8 km long by 0.8 km wide.

OPEN-PIT OUTLINE FOR THE ROSE TANTALUM-LITHIUM PROJECT



Looking South



Looking North

Infrastructures that will be erected on the Rose property include ore, waste and overburden stockpiles, tailings management facility, an explosives mixing plant, administrative offices, telecommunications and ancillary facilities, mechanical shops, haulage and access roads and a water management system.

Based on a preliminary rock mass assessment, which indicates that the ground is competent, and on preliminary overburden test results, a positive approach was adopted in the design of the various stockpiles, the tailings management facility and the mine closure plan.

The proposed mining plan includes drainage of two small lakes and the construction of a retaining dyke across a third lake.

Talks have been initiated with Hydro-Québec concerning the relocation of electrical towers that currently bisect the Rose property.

MINERAL PROCESSING

A standard flotation process will be used to concentrate the lithium and tantalum minerals into a high grade mixed concentrate. The tantalite is separated from this concentrate by high gradient magnetic separation. The non-magnetic fraction containing the lithium mineral (spodumene) will be treated to produce pure lithium carbonate (+99.5% Li_2CO_3) using the same industrial process employed at the Quebec Lithium mine, while it was part of the Sullivan Mining Group in the 1960's, and later refined by the *Centre de Recherches Minérales* (CRM) of the Ministry of Natural Resources and Wildlife.

ENVIRONMENTAL IMPACT STUDY

Initial campaigns for the characterization of the Rose Project site have already been completed. Several meetings with the local communities have already taken place and further discussions are being planned.

Exceptionally, preliminary results from the environmental impact study were available during the completion of the PEA. This information was used to limit the ecological footprint of the infrastructures.

CAPITAL COSTS

Capital and operating costs were estimated in 2011 Canadian dollars. An economic analysis was carried out by means of an undiscounted cash flow analysis expressed in constant dollar terms on a pre-tax and pre-finance basis. Pre-production capital costs for the Rose Project were estimated at CA\$268.6 million and include all the infrastructures listed under the Mining and Mineral Processing sections of this press release.

Total quantity of payable commodities is estimated at 1.6 Mkg Ta_2O_5 (1.3 Mkg Tantalum) and 452 Mkg Li_2CO_3 (85 Mkg Lithium). The following table presents a summary of the major criteria applicable to the Rose Project.

ROSE PROJECT CRITERIA

Item	Unit	Quantity
Production including dilution		
Ta-Li bearing ore (pit only)	tonnes	24,260,534
Diluted metal grades		
Tantalum	ppm	108
Lithium	ppm	4,131
Ta_2O_5	ppm	132
Li_2O	%	0.89
Plant overall recoveries		
Tantalum	%	50
Lithium	%	84.8
Total payable commodities produced		
Ta_2O_5	'000 kg	1,597
Li_2CO_3	'000 kg	452,306
Tantalum	'000 kg	1,308
Lithium	'000 kg	84,981
Preproduction capital costs (contingency included)		
Site preparation	'000 CA\$	22,102
Mine equipment & Development	'000 CA\$	55,312
Energy & Indirect cost	'000 CA\$	62,590
Surface infrastructures	'000 CA\$	128,581
Total preproduction capital	'000 CA\$	268,584
Ongoing investment over 17 years	'000 CA\$	36,818

Revenues generated by the recovery of rubidium (Rb), cesium (Cs), beryllium (Be), and gallium (Ga) were not factored into the estimated revenues stream of the Rose Project considered in the PEA.

OPERATING COSTS

Operating costs are estimated at CA\$67.65 per tonne of ore milled and comprised of:

- CA\$24.25 per tonne of ore milled for mining cost;
- CA\$7.17 per tonne of ore milled for G&A;
- CA\$36.23 per tonne of ore milled for mineral processing (concentrator and bicarbonatation plant).

"We are extremely pleased with the results of this study which represents a major milestone in the progress toward the development of the Rose deposit. Results of the PEA prepared by GENIVAR, Bumigeme and InnovExplo which are reported today further confirm that Critical Elements is in the process of building a very important long-term source of conflict free and ethical tantalum as well as high quality lithium carbonate suitable for battery manufacturing, in one of the best mining jurisdictions in the world", said Jean-Sébastien Lavallée, Critical Elements' President.

Critical Elements wishes to avoid dilution of its equity in the Rose Tantalum-Lithium Project. Off-take arrangements are being discussed with potential Lithium Carbonate and Tantalite Concentrate buyers. The intent is to fund most of the capital requirements through an arrangement of pre-paid production and/or debt financing.

WORK IN PROGRESS

GENIVAR has started working on the Prefeasibility Study (PFS) of the Rose Project. The PFS focuses on refining the mining parameters while considering the option of implementing an underground approach to mine part of the Rose deposit. Results from the PFS are expected during the first quarter of 2012.

Metallurgical testing is on-going at the AcmeMet laboratory in Vancouver.

A geotechnical study was initiated to assess the RQD and joint structure. Once this information becomes available, laboratory tests will be done to characterize the rock mass including Unconfined Compressive Tests, Compressive Resistance Tests, and Brazilian Tests. Test results will be used to improve pit design, determine ground support requirements and ramp dimensions at the next stage of the studies.

Final results from the Environmental Impact Study are expected in September 2012.

NATIONAL INSTRUMENT 43-101 DISCLOSURE

The Technical Report for the PEA was prepared for Critical Elements Corporation, by or under the supervision of Qualified Persons (QPs) as defined in National Instrument 43-101 and in compliance with Form 43-101F1. The qualified persons (QP) who collaborated to this PEA include GENIVAR employees: Charles Gagnon, Eng., M.Sc, France Gauthier, Eng., Simon Latulippe, Eng.; from BUMIGENE: Florent Baril, Eng., and from InnovExplo, Carl Pelletier, B.Sc., Geo., and Pierre-Luc Richard, B.Sc., Geo. The Qualified Persons have read and approved the contents of this news release.

A Technical Report compliant with National Instrument 43-101 summarizing the Preliminary Economic Assessment findings and recommendations will be filed on SEDAR (www.sedar.com) within 45 days.

The economic analysis contained in the PEA is based on Indicated Mineral Resources and is preliminary in nature. Inferred Mineral Resources were not considered in the PEA as they are considered too speculative to have mining and economic considerations applied to them that would enable them to be categorized as Mineral Reserves. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

ABOUT CRITICAL ELEMENTS CORPORATION

Critical Elements is actively developing its 100%-owned Rose lithium-tantalum flagship project located in Quebec. The project hosts a current NI 43-101 compliant **Indicated Mineral Resource of 26.5 million tonnes at 1.30% Li₂O Eq. or 0.98% Li₂O and 163 ppm Ta₂O₅ and an Inferred Mineral Resource of 10.7 million tonnes at 1.14% Li₂O Eq. or 0.86% Li₂O and 145 ppm Ta₂O₅.**

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 Mineral Resource of 814,228 tonnes at 9.11 g/t Au, for 238,414 ounces of gold at a 5 g/t cut-off.

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.

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