NAMIBIA CRITICAL METALS INC.

Press Release

Namibia Critical Metals Successfully Completes Optimization on Hydrometallurgical Flowsheet for the Lofdal Heavy Rare Earth Deposit

Halifax, Nova Scotia May 13, 2024 – Namibia Critical Metals Inc. ("Namibia Critical Metals" or the "Company" or "NCMI") (TSXV: NMI OTCQB: NMREF) is pleased to announce key results of the optimization test program in preparation for scale-up hydrometallurgical tests for its "Lofdal 2B-4" heavy rare earth project.

Tests were conducted on a 93 kg concentrate sample produced by a flotation pilot plant at SGS Lakefield, using run-of-mine material from the Lofdal Area 4 starter pit. The pilot plant flotation program confirmed the performance of the Lofdal beneficiation flowsheet in a continuous operation and demonstrated the ability to produce an upgrade mineral concentrate. Previous test on bulk flotation concentrate showed promising results in terms of REE extraction and reduced reagent consumption. The current hydrometallurgical testing aims to replicate the previous result using the concentrate produced from the flotation pilot plant. Preliminary confirmatory tests showed consistent high REE dissolution and established a relation between sulphation temperature, REE extraction and iron co-extraction.

Key results include:

- Low (~ 300°C) temperature sulphation yields higher REE dissolution, but also higher iron dissolution. High iron dissolution leads to high reagent consumption to remove the iron in the leach solution.
- High (~ 600°C) temperature sulphation proved to be beneficial in suppressing iron dissolution into the leach solution. The process was able to reduce iron dissolution from around 60% (low temperature bake) to around 30%. This leads to a net reduction in $MgCO_3$ consumption. However, some REE losses were observed at these high temperature bake conditions.
- Impurity removal process was shown to be successful in removing the iron and thorium and at minimum REE losses whether from high temperature or low temperature sulphation conditions.

Darrin Campbell, President of Namibia Critical Metals, stated:

"I am very pleased to see the hydrometallurgical optimization test work completed with positive results. The unusual primary xenotime mineralization forced us to practically pioneer all beneficiation steps. During our recent visit to the SGS test facilities at Lakefield we were impressed with how our lead consultants at SGS Canada master the optimization of the earlier developed flowsheet. Based on the data, it seems we see further significant reduction of OPEX compared to the previous financial estimations."

Optimization of Hydrometallurgical Flowsheet

Test-work was conducted at SGS Lakefield from October 2023 to April 2024 in preparation of acid sulphation scale-up test-work planned for Q2 2024.

Flotation concentrate samples with varying iron levels (by applying magnetic separation) were used in hydrometallurgical tests. The results showed that higher or lower iron levels in the flotation concentrate were equally manageable in the sulphation process.

Low temperature acid sulphation led to higher REE extraction (and high iron dissolution).

High temperature sulphation, on the other hand, showed that iron dissolution could be reduced leading to a reduction in magnesium carbonate required for iron precipitation in the impurity removal step. Preliminary confirmatory hydrometallurgical testing at high temperature sulphation using the concentrate produced from flotation pilot plant shows an improved REE dissolution coupled with high iron dissolution.

A trade-off study is being conducted by SGS Bateman to identify the optimum route for the upstream hydrometallurgical process.

The ongoing test-work program and trade-off study aims to establish the process conditions applied in the scale up program of the acid sulphation and water leach unit operations. This work will be followed by further optimisation of the downstream REE recovery steps to produce a mixed rare earth oxide product.

About Namibia Critical Metals Inc.

NCMI is developing the Tier-1 Heavy Rare Earth Project, Lofdal, a globally significant deposit of the heavy rare earth metals dysprosium and terbium. Demand for these critical metals used in permanent magnets for electric vehicles, wind turbines and other electronics is driven by innovations linked to energy and technology transformations. The geopolitical risks associated with sourcing many of these metals has become a repeated concern for manufacturers and end users. Namibia is a proven and stable mining jurisdiction.

The Lofdal Project is fully permitted with a 25-year Mining License and is under a Joint Venture Agreement with Japan Organization for Metals and Energy Security (**JOGMEC**).

The Company filed a robust updated PEA for "Lofdal 2B-4" on November 14, 2022, with a post-tax NPV of USD$391 million and an annual IRR of 28% with a capital expenditure of USD$207 million. The project is projected to generate a life of mine nominal cash flow of USD$698 million post-tax over a 16-year mine life.

About Japan Organization for Metals and Energy Security (JOGMEC) and the JV

JOGMEC is a Japanese government independent administrative agency which seeks to secure stable resource supplies for Japan. JOGMEC has a strong reputation as a long term, strategic partner in mineral projects globally. JOGMEC facilitates opportunities with Japanese private companies to secure supplies of natural resources for the benefit of the country's economic development.

Rare earth elements are of critical importance to Japanese industrial interests and JOGMEC has extensive experience with all aspects of the sector. JOGMEC provided Lynas with USD$250,000,000 in loans and equity in 2011 to ensure supplies of the Light Rare Earths metals suite to the Japanese industry.

Namibia Critical Metals owns a 95% interest in the Lofdal project with the remaining 5% held for the benefit of historically disadvantaged Namibians. The terms of the JOGMEC joint venture agreement with the Company stipulate that JOGMEC provides C$3,000,000 in Term 1 and C$7,000,000 in Term 2 to earn a 40% interest in the Lofdal project. Term 3 calls for a further C$10,000,000 of expenditures to earn an additional 10% interest. JOGMEC can also purchase another 1% for C$5,000,000 and has first right of refusal to fully fund the project through to commercial production and to purchase all production at market prices. The collective interests of NCMI and historically disadvantaged Namibians cannot be diluted below a 26% carried working interest upon payment of C$5,000,000 to JOGMEC for the dilution protection. NMI may elect to participate up to a maximum of 44% by funding pro rata after the earn in period is completed.

To date, JOGMEC has completed Term 2 and earned a 40% interest by reaching the C$10 million expenditure requirement. Total approved project funding to date is C$14,541,000 of the $20,000,000 Earn-In requirement to reach 50% interest.

James Brown, Peng. of SGS is a Qualified Person and has reviewed and approved the sections on hydrometallurgical test work in this press release.

Rainer Ellmies, PhD, MScGeol, EurGeol, AusIMM and Vice President of Namibia Critical Metals Inc., is the Company's Qualified Person and has reviewed and approved this press release.

The common shares of Namibia Critical Metals Inc. trade on the TSX Venture Exchange under the symbol "NMI" and the OTCQB Market under the symbol "NMREF".
Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

For more information please contact -
Namibia Critical Metals Inc.
Darrin Campbell, President
Tel: +01 (902) 835-8760
Email: Info@NamibiaCMI.com Web site: www.NamibiaCriticalMetals.com