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NEWS RELEASE February 9, 2025

LEADING EDGE MATERIALS WORKING ON RAPID DEVELOPMENT PLAN FOR NORRA KÄRR

Vancouver, February 9, 2025 – Leading Edge Materials Corp. ("**Leading Edge Materials**" or the "**Company**") (**TSXV: LEM**) (**Nasdaq First North: LEMSE**) (**OTCQB: LEMIF**) provides an update for the 100% owned Norra Kärr Heavy Rare Earth Elements ("HREE") Project.

- A decision on the Company's application for Strategic Project status under the Critical Raw Materials Act ("CRMA") is expected by the end of March 2025. Pre-feasibility study ("PFS") work for the upstream and downstream will commence in the second quarter. The Company expects a decision on its application for a new Exploitation Concession ("Bearbetningskoncession") 25-year mining lease later in the year.
- Testwork is being carried out on nepheline syenite and aegirine to determine their mineralogy, chemical composition, and leachate chemistry. The results will support further assessment of the market opportunities for nepheline syenite, and possibly aegirine, and the potential environmental impact of any waste materials.
- Company has started discussions with nepheline syenite market participants to identify attractive market segments, volumes and pricing. In the Preliminary Economic Assessment completed in 2021 ("PEA 2021"), three nepheline syenite markets were selected, those requiring the least amount of additional processing and product qualification, with pricing ranging from US$12-65 per tonne. These assumptions were conservative and the Company is now investigating higher value markets such as functional filler products with comparable prices at the time of US$100-500 per tonne. In the PEA2021, nepheline syenite contributed 11% of the total revenues when using conservative prices. There is the potential for significant upside in pricing and revenue contribution to the overall project economics.
- As part of the PFS, the Company will evaluate the business case for a Rapid Development Plan ("RDP"), whereby Norra Kärr can be in production in the shortest possible timeframe to be supplying REE concentrates to the market in advance of the completion of the downstream processing facility and selling nepheline syenite. This will generate cashflow and mean earlier delivery of REE concentrates onto the European market. Capacity for processing REE concentrates in the region is being developed and this gives the Company options for the downstream.

Kurt Budge, Chief Executive Officer, writes:

"The Company is closely watching the EU's decision on Strategic Project status; a designation that would set a clear 27-month permitting timeline and facilitate access to finance. Given current geopolitical tensions—highlighted by the U.S. President's stance on Greenland's resources and Ukraine's rare earth elements—it is difficult to imagine a scenario where Norra Kärr is not recognized as critical to Europe's REEs supply.

Meanwhile, the Company is advancing a Rapid Development Plan to meet Europe's urgent demand for heavy rare earth elements. Fast-tracking development is no longer an option—it's a necessity.

By separating extraction from downstream processing, operations at Norra Kärr have been streamlined. The project now functions much like a quarry, with on-site extraction and physical processing producing two high-value products: a HREE magnetic concentrate and nepheline syenite, an industrial mineral previously explored at Norra Kärr by Boliden in the 1970s.

The Company remains committed to accelerating progress, engaging key stakeholders, and exploring all avenues to bring Norra Kärr into production as swiftly as possible."

Nepheline Syenite (Information extracted from PEA 2021)

Nepheline syenite is an aluminium silicate consisting of minerals nepheline, microcline and albite. A quartz-free feldspathoid, nepheline syenite is commonly reported together with feldspars but has a number of advantages in industrial use. The high alumina content combined with a low melting point makes the material attractive for ceramic flux, glass, coatings, paint, functional fillers and cement fillers. Nepheline syenite has also been extensively looked at as an alternative feedstock for production of aluminium instead of from bauxite.

Nepheline syenite products are often incorrectly classified as feldspar, undermining the greater performance benefits of a higher quality nepheline syenite with a higher market price than feldspar. The PEA targets well-established and traditional feldspar markets, using compositionally superior and non-toxic nepheline syenite products as substitutes.

Due to its unique chemical properties, nepheline syenite has found its way into many modern industrial functions used today. The application of nepheline syenite can be grouped into six main end-use categories:

- Paints - White pigment filler enhancing brightness
- Fiber glass insulation - Provides strength to the glass and lowers melting point
- Ceramics - Enhancing high gloss and white glaze
- Ambering - Colouring of glass preventing liquids to deteriorate in the presence of light
- Flux - Acts to lower the melting points of SiO_2 to make glass containers and flat glass such as windshields for vehicles.
- Cement filler - Increases the density of concrete materials while lowering the amount of cement used reducing the carbon footprint

The current industrial applications for nepheline syenite are made achievable by utilizing six main unique characteristics, providing properties that are lacking in traditionally used feldspar.

- Opacity - Bright white colour characteristics and free of quartz impurities
- Strengthening of glass - Provided by alumina content
- Colouring and strengthening elements - For less pure products due to the iron-oxide composition
- Refractive properties - Provide matting textures while maintaining its transparency and anti-settling characteristics. The refractive index is identical to most used clear binders, including polyurethanes, epoxies, acrylic, alkyds, and nitrocellulose

- Hardness - 6 on the Mohs hardness scale means a significant abrasion improvement and scratch resistance in comparison to other minerals providing less weathering in paints and improved coatings
- Non-toxic - Quartz free eliminating the need for any respiratory or carcinogenic warning labelling

Norra Kärr is estimated to produce approximately 730,000 tonnes per annum over 26 years (PEA 2021), including 62% 'higher value' coarse granular product proposed for European and North American markets, with the balance sold in Sweden.

Norra Kärr - Preliminary Economic Assessment 2021 (PEA 2021)

PEA 2021 news release: https://leadingedgematerials.com/leading-edge-materials-announces-positive-preliminary-economic-assessment-results-for-its-norra-karr-ree-project-with-us1026m-pre-tax-npv10-and-30-8-pre-tax-irr/

On behalf of the Board of Directors,
Leading Edge Materials Corp.

Kurt Budge, CEO

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About Leading Edge Materials

Leading Edge Materials is a Canadian public company focused on developing a portfolio of critical raw material projects located in the European Union. Critical raw materials are determined as such by the European Union based on their economic importance and supply risk. They are directly linked to high growth technologies such as lithium-ion batteries and permanent magnets for electric motors and wind power that underpin the sustainability transition of society. The portfolio of projects includes the 100% owned Woxna Graphite mine (Sweden), 100% owned Norra Kärr Heavy Rare Earth Elements project (Sweden), and the 51% owned Bihor Sud Nickel Cobalt exploration alliance (Romania).

Additional Information

The information was submitted for publication through the agency of the contact person set out above, on February 9, 2025, at 11:30 PM Vancouver time.

Leading Edge Materials is listed on the TSXV under the symbol "LEM", OTCQB under the symbol "LEMIF" and Nasdaq First North Stockholm under the symbol "LEMSE". Mangold Fondkommission AB is the Company's Certified Adviser on Nasdaq First North and may be contacted via email CA@mangold.se or by phone +46 (0) 8 5030 1550.

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