

Company Announcement, July 1st, 2014

## **EURARE Project Update:**

## **Kvanefjeld Bulk Ore Sample Selected for Demonstration Plant Operations**

Greenland Minerals and Energy Ltd ("GMEL" or "the Company") is pleased to provide an update on the EURARE program following the recent meeting of EURARE participants in Aachen, Germany. The Company is a key participant in the EURARE program, which is designed to support the development of a sustainable exploitation scheme for Europe's rare earth ore deposits, and is funded by the European Union.

Samples from GMEL's Kvanefjeld project are to be utilised in upcoming large-scale demonstration plant operations. Thirty tonnes of ore has recently been collected from the Kvanefjeld project area and prepared for shipping. The bulk sample is sourced from extensive ore material that was extracted during historic work programs from an adit, which had been driven for over 800m through the middle of the Kvanefjeld resource. Prior investigations by GMEL have confirmed the suitability of this material for testwork campaigns.

The 30 tonne sample will be sent to Outokumpu in Finland for the mineral processing demonstration plant. Here a crushing, grinding and flotation pilot plant will be performed by GTK Finland. GTK has already performed a number of bench scale flotation tests which show a high upgrade ratio and produced mineral concentrates with grades greater than 15% REO. These results are in alignment with those achieved by GMEL's prior pilot plant operations. The 30 tonnes of ore is expected to produce around 2 tonnes of mineral concentrate as part of the demonstration plant. The GTK concentrator demonstration plant activities are currently expected to take place in early 2015.

Once the demonstration plant mineral concentrate has been produced, hydrometallurgical refining is needed as the next stage of processing. The EURARE refinery demonstration plant work is planned to take place in Aachen, Germany in the second half of 2015. The refinery demonstration plant will produce a mixed rare earth carbonate, which is suitable as a direct feed to a separation plant.

MEAB are a world expert in solvent extraction technology based in Sweden and Germany. They have extensive metallurgical laboratories in Aachen, Germany and will be utilised for the Separation Plant demonstration. This involves a large number of stages of solvent extraction. The products from this demonstration plant will be light, middle and heavy fractions of rare earths. From the light fraction is mixture of praeseodymium and neodymium oxide will be produced in significant testwork quantities.

RWTH Aachen has significant pyrometallurgical and electro-refining expertise. They will be utilised to convert the mixed praeseodymium and neodymium oxide in metal. This is performed by electrowinning the metals from a molten rare earth fluoride salt.





Finally the metal produced will be evaluated as a feedstock for the production of high strength rare earth magnets.

This extensive demonstration work is fully funded by the European Union through EURARE. The production of final products through a complete European processing chain using European technology will be a significant achievement for the EURARE program.

The Kvanefjeld project has been selected as one of the main projects for the demonstration of rare earth production from EU-related mineral deposits. The knowledge gained during EURARE development work will build the expertise of EU institutions in rare earth production.

Importantly, GMEL's involvement in the EURARE program is independent of the projected timeline for the Kvanefjeld project, and the progression of discussions with strategic development partners. However, the program of work will serve to consolidate the ongoing technical de-risking of the Kvanefjeld project, and also serves to complement GMEL's extensive and rigorous testwork conducted over a multi-year process development campaign.

GMEL is pleased to be part of the EURARE program and contributing through the provision of sample material for test work, as well as expertise developed through the course of the Kvanefjeld feasibility program.

For further details please see the attached material flow diagram and picture of ore sampling in Greenland in the Appendices.

Yours faithfully,

Roderick McIllree

Managing Director Greenland Minerals and Energy Ltd

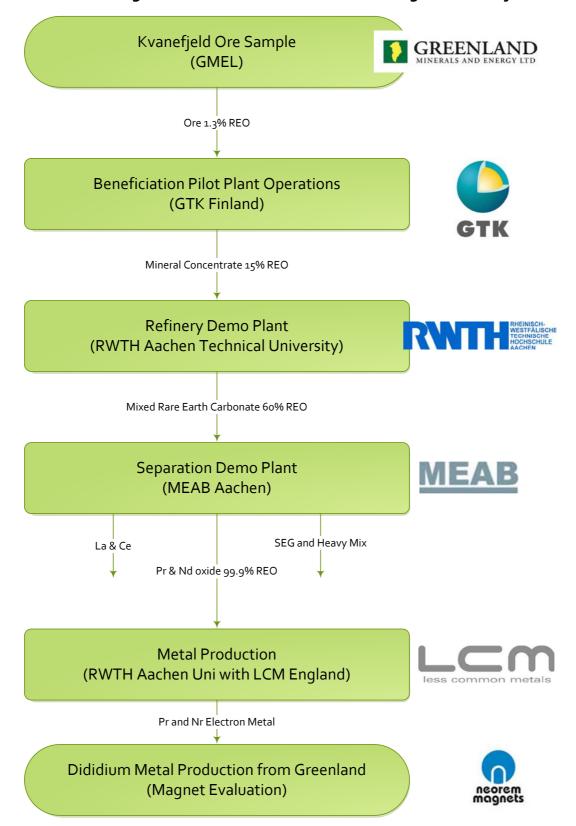






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## Material Flow During EURARE Demonstration Work Package for Kvanefjeld Ore





Sampling of Kvanefjeld ore material from stockpiles located in the Narsaq valley in June 2014 for the EURARE Research Program. The Kvanefjeld resource underlies the broad plateau, located to the left of screen. Material from the Kvanefjeld resource was extracted during historic work programs from an adit that extends over 800m through the resource.

## ABOUT GREENLAND MINERALS AND ENERGY LTD.

Greenland Minerals and Energy Ltd (ASX – GGG) is an exploration and development company focused on developing high-quality mineral projects in Greenland. The Company's flagship project is the Kvanefjeld multi-element deposit (Rare Earth Elements, Uranium, Zinc), that is rapidly emerging as a premier specialty metals project. A comprehensive pre-feasibility study has demonstrated the potential for a large-scale, cost-competitive, multi-element mining operation. For further information on Greenland Minerals and Energy visit <a href="http://www.ggg.gl">http://www.ggg.gl</a> or contact:

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