GREENLAND
MINERALS AND ENERGY LTD

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Technical Breakthrough:

Kvanefjeld REE-Uranium Beneficiation Circuit Successfully Piloted

Greenland Minerals and Energy Limited ("GMEL" or "the Company") is pleased to outline a critical technical breakthrough on the Kvanefjeld multi-element project in Greenland. Kvanefjeld is underpinned by one of the world's largest JORC-code compliant resources of rare earth elements and uranium. In early 2010, the company released an interim pre-feasibility report outlining a base-case development scenario that would see Kvanefjeld developed as a cost-effective, long life operation. Since then, focused research and development has led to major technical breakthroughs in the area of mineral beneficiation that provide a clear path to an increasingly efficient and cost-effective development scenario.

- ***Major advances in mineral beneficiation provide a means to simply and effectively transform the Kvanefjeld ores into a high-grade, low-mass mineral concentrate.***

- ***Testwork demonstrates TREO grade increases of greater than ten times; a very high upgrade ratio within the specialty metals sector.***

- ***The method has now been successfully piloted under continuous operation to produce a bulk mineral concentrate. This concentrate is now being tested to establish the most favourable downstream leach solution chemistries.***

- ***Effective beneficiation allows for the major downsizing of hydrometallurgical leach circuits, and is anticipated to lead to significant reductions in overall capital and operating costs.***

- ***Importantly, these studies demonstrate that not only are the Kvanefjeld resources extensive, but the minerals are fundamentally amenable to concentration, allowing for efficient and cost-effective REE and uranium extraction.***

The Company is now fast-tracking testwork to identify the most suitable leach chemistry for the mineral concentrate. The results of this testwork will be released over the coming months, along with further enhancements to the beneficiation circuit. The technical advances are in line with GMEL's current focus of identifying and delivering the optimal development scenario for the Kvanefjeld multi-element project.

PERTH: Unit 6 100 Railway Road, Subiaco Western Australia 6008 Postal: PO Box 2006 Subiaco WA 6904
Telephone: +61 8 9382 2322 Facsimile: +61 8 9382 2788
LONDON: First Floor 47 Charles Street, Mayfair, London W1J 5EL
GREENLAND: PO Box 156, Narsaq, Greenland 3921
WEB: www.ggg.gl EMAIL: info@ggg.gl ABN 85 118 463 004

Background

Greenland Minerals and Energy Limited has been advancing the Kvanefjeld project, located favourably in southern Greenland, since 2007. A large, outcropping multi-element resource of REEs, uranium and zinc has been defined at Kvanefjeld, with attention now focused on delineating high-grade satellite deposits at Zones 2 and 3. In parallel with resource development, the Company has been conducting comprehensive metallurgical and process development studies to establish the optimal way to process the Kvanefjeld resources. A base-case flow sheet has been established, as outlined in the Interim Pre-Feasibility Report on Kvanefjeld, released in January 2010. The study clearly demonstrated that Kvanefjeld could be developed as a large-scale, long-life and cost effective producer of rare earth concentrates and uranium. The Company has recently commenced environmental and social impact assessments on the Kvanefjeld project, following an extensive phase of stakeholder engagement in Greenland. Infrastructure studies are also well-advanced.

Technical Developments - Beneficiation Breakthrough

Since the release of the Interim pre-feasibility report in early 2010 the Company has made numerous technical advancements including increases in RE recovery, ore grades, the size of the resource estimate, and subsequent improvements in the grades in the mine schedule.

However, the most important development has been the identification of a method to beneficiate the ore into a high-grade, low-mass fraction. The implications of this are highly significant.

> ***Through a simple flotation step, Kvanefjeld ore is transformed into a much higher-grade mineral concentrate that constitutes <15% of the original mass.***
>
> ***This presents the opportunity to scale down the downstream leach circuits proportionally, reducing capital costs, and improving operational efficiency and costs. Test work has also indicated that a high-grade zinc concentrate can be generated using flotation.***

The resources at Kvanefjeld are hosted by an unusual rock-type called lujavrite. GMEL conducts a research program at the Mineral Deposit Research Unit, UBC, Vancouver, which is devoted to understanding the minerals that make up the Kvanefjeld resource. Rare earths and uranium are predominantly hosted in unusual phosphate minerals that constitute < 10% of the mass (the economic minerals). The phosphate minerals include steenstrupine and vitusite. Sodium-zirconium silicate minerals (Lovozerite group) host the residual REEs and uranium.

The comprehensive mineralogical understanding has allowed for a highly focused beneficiation testwork program, conducted by GMEL in association with internationally-recognised consultants. Through these studies the Company has identified a flotation methodology that can very effectively concentrate the phosphate minerals. These minerals host the majority of REEs and uranium within the deposit. The phosphate-group mineral concentrate features an approximately ten-fold increase in TREO grades. Testwork has also demonstrated that a high-grade zinc (sphalerite) concentrate can be recovered using flotation. Importantly, flotation is an industry proven beneficiation method with low technical risk.

The Company has now successfully piloted the flotation circuit to produce a REE-U rich mineral concentrate (phosphate group). A zinc (sphalerite) concentrate is removed in a simple step prior to the generation of the REE-U concentrate. The flotation circuit was run for 15 hours continuously; with the primary aim of generating bulk mineral concentrates for hydro-metallurgical leach studies (see Figures 1 and 2).

Figure 1. Kvanefjeld flotation circuit – stage one pilot plant, SGS Oretest, Perth. The plant was run continuously for 15 hours to produce a zinc (spalerite) concentrate, and a REE-U phosphate mineral concentrate. The ability to effectively concentrate the REE-U bearing phosphate minerals into a small mass fraction represents a critically important breakthrough in establishing the optimal process flow-sheet for the Kvanefjeld project.

Flowsheet Development Schedule

Following these breakthroughs, the Company believes that a flow-sheet that is based on upfront, efficient beneficiation will likely be the optimal flow sheet for the Kvanefjeld project. Over the coming months as this flowsheet is advanced, it will be evaluated against the base-case scenario that had already been extensively studied at a pre-feasibility level. The base-case represents an economically and technically robust scenario; however, it does not include efficient up-front mineral beneficiation, and,

therefore, requires the processing of larger volumes of lower-grade feed. The ability to effectively beneficiate is anticipated to improve on the base-case considerably.

The selection of the optimal flow-sheet is slated for early 2012, which is in accordance with the broader development schedule for the Kvanefjeld project. The finalisation of the Kvanefjeld flowsheet will be immediately followed by detailed design work, with piloting of the entire final flowsheet scheduled to commence in the latter half of 2012.

Figure 2. The REE-phosphate cleaner cell (left), and a close-up of the REE-phosphate mineral froth.

Yours faithfully,

Roderick McIllree
Managing Director
Greenland Minerals and Energy Ltd

Table 1. Statement of Identified Mineral Resources, Kvanefjeld Multi-Element Project, March 2011.

Multi-Element Resources, Classification, Tonnage and Grade										*Contained Metal*				
Cut-off	**Classification**	**M tonnes**	**TREO[2]**	**U_3O_8**	**LREO**	**HREO**	**REO**	**Y_2O_3**	**Zn**	**TREO**	**HREO**	**Y_2O_3**	**U_3O_8**	**Zn**
(U_3O_8 ppm)[1]		Mt	ppm	ppm	ppm	ppm	ppm	ppm	ppm	Mt	Mt	Mt	M lbs	Mt
150	**Indicated**	437	10929	274	9626	402	10029	900	2212	**4.77**	0.18	0.39	**263**	0.97
150	**Inferred**	182	9763	216	8630	356	8986	776	2134	**1.78**	0.06	0.14	**86**	0.39
150	**Grand Total**	619	10585	257	9333	389	9721	864	2189	**6.55**	0.24	0.53	**350**	1.36
200	**Indicated**	291	11849	325	10452	419	10871	978	2343	**3.45**	0.12	0.28	**208**	0.68
200	**Inferred**	79	11086	275	9932	343	10275	811	2478	**0.88**	0.03	0.06	**48**	0.20
200	**Grand Total**	370	11686	314	10341	403	10743	942	2372	**4.32**	0.15	0.35	**256**	0.88
250	**Indicated**	231	12312	352	10950	443	11281	1032	2363	**2.84**	0.10	0.24	**178**	0.55
250	**Inferred**	41	11251	324	10929	366	10426	825	2598	**0.46**	0.02	0.03	**29**	0.11
250	**Grand Total**	272	12152	347	10947	431	11152	1001	2398	**3.30**	0.12	0.27	**208**	0.65
300	**Indicated**	177	13013	374	11437	469	11906	1107	2414	**2.30**	0.08	0.20	**146**	0.43
300	**Inferred**	24	13120	362	11763	396	12158	962	2671	**0.31**	0.01	0.02	**19**	0.06
300	**Grand Total**	200	13025	373	11475	460	11935	1090	2444	**2.61**	0.09	0.22	**164**	0.49
350	**Indicated**	111	13735	404	12040	503	12543	1192	2487	**1.52**	0.06	0.13	**98**	0.27
350	**Inferred**	12	13729	403	12239	436	12675	1054	2826	**0.16**	0.01	0.01	**10**	0.03
350	**Grand Total**	122	13735	404	12059	497	12556	1179	2519	**1.68**	0.06	0.14	**108**	0.31

[1]There is greater coverage of assays for uranium than other elements owing to historic spectral assays. U_3O_8 has therefore been used to define the cutoff grades to maximise the confidence in the resource calculations.

[2]Total Rare Earth Oxide (TREO) refers to the rare earth elements in the lanthanide series plus yttrium.

Note: Figures quoted may not sum due to rounding.

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. An interim report on pre-feasibility studies has demonstrated the potential for a large-scale multi-element mining operation. For further information on Greenland Minerals and Energy visit http://www.ggg.gl or contact:

Roderick McIllree	David Tasker (Australia)	Christian Olesen (DK)
Managing Director	Professional PR	Rostra Kommunikation
+61 8 9382 2322	+61 (0) 89388 0944	+45 (0)3336 0429

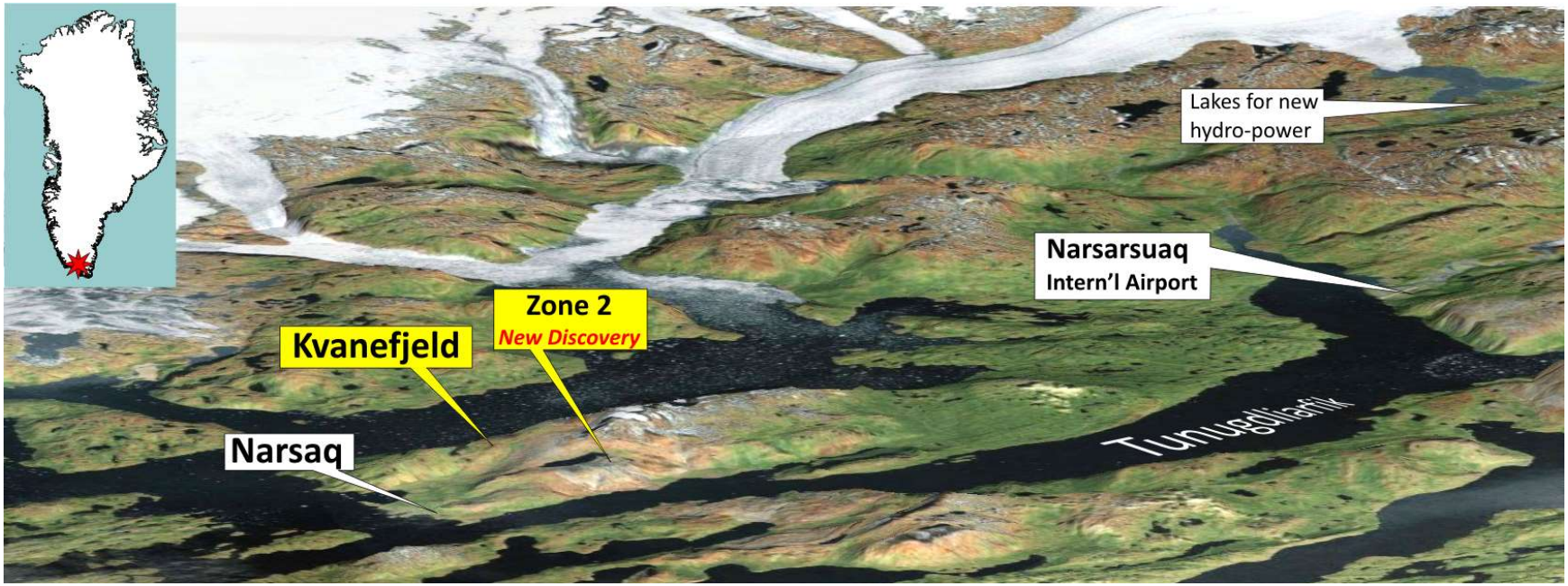
Greenland Minerals and Energy Ltd is aware of and respects the Greenlandic government's stance on uranium exploration and development in Greenland which is currently a zero tolerance approach. However, a new amendment has been introduced to the standard terms for exploration licenses in Greenland that creates a framework for the evaluation of projects that include uranium amongst other economic elements. Within this framework the Company is permitted to fully evaluate the Kvanefjeld project, inclusive of radioactive elements.

The Kvanefjeld Project is recognised as the world's largest undeveloped JORC-compliant resource of rare earth oxides (REO), in a multi-element deposit that is also enriched in uranium and zinc.

Greenland Minerals will continue to advance this world class project in a manner that is in accord with both Greenlandic Government and local community expectations, and looks forward to being part of continued community discussions on the social and economic benefits associated with the development of the Kvanefjeld Project.

The information in this report that relates to exploration results, geological interpretations, appropriateness of cut-off grades, and reasonable expectation of potential viability of quoted rare earth element, uranium, and zinc resources is based on information compiled by Jeremy Whybrow. Mr Whybrow is a director of the Company and a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Whybrow has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined by the 2004 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Whybrow consents to the reporting of this information in the form and context in which it appears.

The geological model and geostatistical estimation for the Kvanefjeld deposit were prepared by Robin Simpson of SRK Consulting. Mr Simpson is a Member of the Australian Institute of Geoscientists (AIG), and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined by the 2004 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Simpson consents to the reporting of information relating to the geological model and geostatistical estimation in the form and context in which it appears.



View over the broader geography of GMEL's multi-element project on the northern Ilimaussaq Complex located in southern Greenland. The fjords form a large-scale natural harbor system that is open to the north Atlantic shipping lanes all year round, and provide easy access to the project area. The distance from Narsaq to Narsarsuaq is approximately 45 km.