

GREENLAND

MINERALS AND ENERGY LTD

Company Announcement

Thursday July 29th, 2010

Exploration Unearths New Discovery in the Northern Ilimaussaq Complex

Highlights:

- *Exploration drilling confirms the discovery of a large zone of lujavrite 6 km south of Kvanefjeld (lujavrite is the host-rock to multi-element resources at Kvanefjeld)*
 - *Drilling to-date has intersected extensive lujavrite across a strike length of more than 1km*
 - *Layers of lujavrite are sub-horizontal and commonly >50m in thickness with some layers >100m*
 - *Medium-coarse (MC) lujavrite; known to contain high multi-element grades at Kvanefjeld, intercepted at depth*
- *Infill drilling at Kvanefjeld complete*
- *8000m of core drilled to-date, with approximately 3000m remaining to be drilled at the new discovery termed **Zone 2***

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Introduction

Greenland Minerals and Energy Limited ("GMEL" or "the Company", ticker ASX: GGG) is pleased to provide an update on the drill program that is currently in progress on the northern Ilimaussaq complex in Greenland. Diamond drilling to define multi-element resources commenced on June 3rd, and approximately 8,000m of core have been drilled to date.

The planned infill drilling on Kvanefjeld plateau is now complete, and both diamond rigs are now drilling on **Zone 2**, located 6km to the south. Seven drill holes have now been completed at **Zone 2** confirming the presence of a large new zone of black lujavrite; the dominant ore-type at Kvanefjeld. In contrast to Kvanefjeld where the uppermost lujavrites have been unroofed by glaciation, **Zone 2** preserves a full section.

Approximately 3000m remain to be drilled on **Zone 2**. Assays from the current drill program should be available in the fourth quarter, 2010.

Background

Greenland Minerals and Energy Ltd is a mineral exploration and development company operating in southern Greenland. The Company is primarily focused on advancing the Kvanefjeld multi-element (*rare earth elements, zinc, and uranium*) project toward development. Kvanefjeld is located within the Company's license over the northern Ilimaussaq Intrusive Complex; a unique geological entity. A JORC-compliant resource has already been defined at Kvanefjeld (see Appendix 1) as most recently released on 21 April 2010, which represents a portion of the broader Ilimaussaq ore field.

The Company continues to work with relevant participant groups and Greenlandic stakeholders to change the current Greenlandic regulations from the current zero tolerance uranium policy towards uranium mining and exploration. The Company anticipates that the Greenland Government will seek to resolve the policy during government sittings in October and November 2010.

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The 2010 Field Program

The current field program underway in Greenland involves diamond core drilling for exploration and resource definition. At Kvanefjeld, 4000m of core have been drilled to increase the density of drill holes in areas that are currently classified as *inferred* resources. This program is intended to generate sufficient data to convert the remaining *inferred* resources into the *indicated* category. Most of the *inferred* resource material is located in the near surface toward the SW end of the Kvanefjeld deposit. At present *inferred* resources are not included in the mine plan. If converted to *indicated*, these resources can then be scheduled into mine plans serving to increase the current life-of-mine. Drill core has been processed and will be shipped to the laboratory for multi-element assay at the end of the field program in mid-August.



Figure 1. View over Tunugdliarfik fjord toward **Zone 2**. Thick layers of black lujavrite outcrop in the slopes, and are overlain by naujaite. The ridge top is approximately 700 m above sea level.

Exploration drilling at **Zone 2**, located 6 km south of Kvanefjeld, is now underway with seven holes completed. This new multi-element prospect represents the Company's next focal point for exploration within northern Ilimaussaq Complex. At **Zone 2** the lujavrite occurs below a

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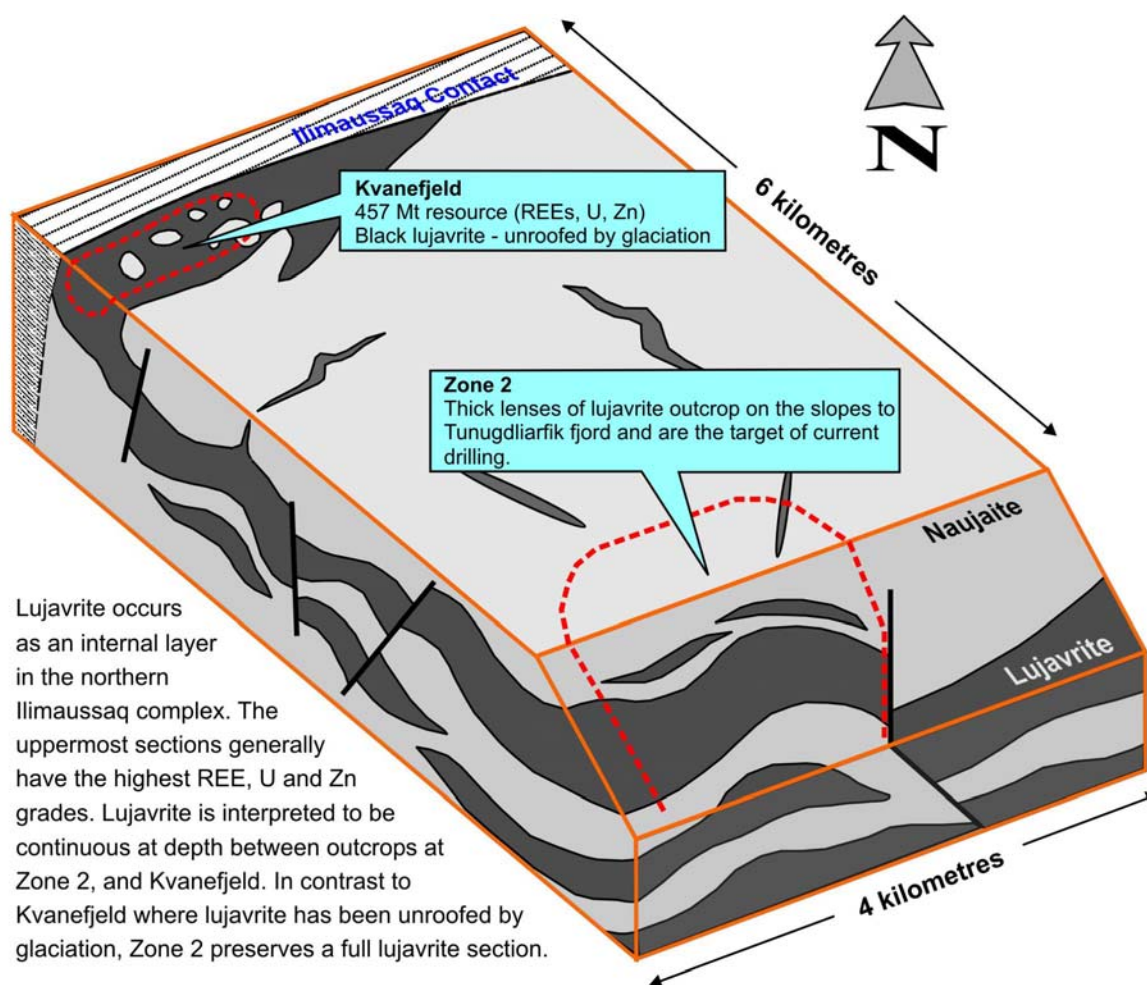
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naujaite cap, but thick layers of lujavrite outcrop in the steep slopes that run between the ridge crest at 700m elevation, and Tunugdliarfik fjord (Figure 1).

Significantly, all available geological evidence indicates that the lujavrite layer is continuous at depth from **Zone 2** through to Kvanefjeld located 6 km to the NNW where a JORC-compliant 457 Mt multi-element resource has been defined (see Figure 2 and Appendix 1). GMEL's strategy is to initially focus resource definition programs on the near-surface occurrences of lujavrite. Consistent with past results, the highest multi-element grades occur at the top of lujavrite sections, and with the lujavrites at **Zone 2** yet to be unroofed by glaciation (the full lujavrite section is preserved), good grades are expected.



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Figure 2. Block diagram across the northern Ilimaussaq Complex illustrating the relationship between Kvanefjeld and Zone 2.

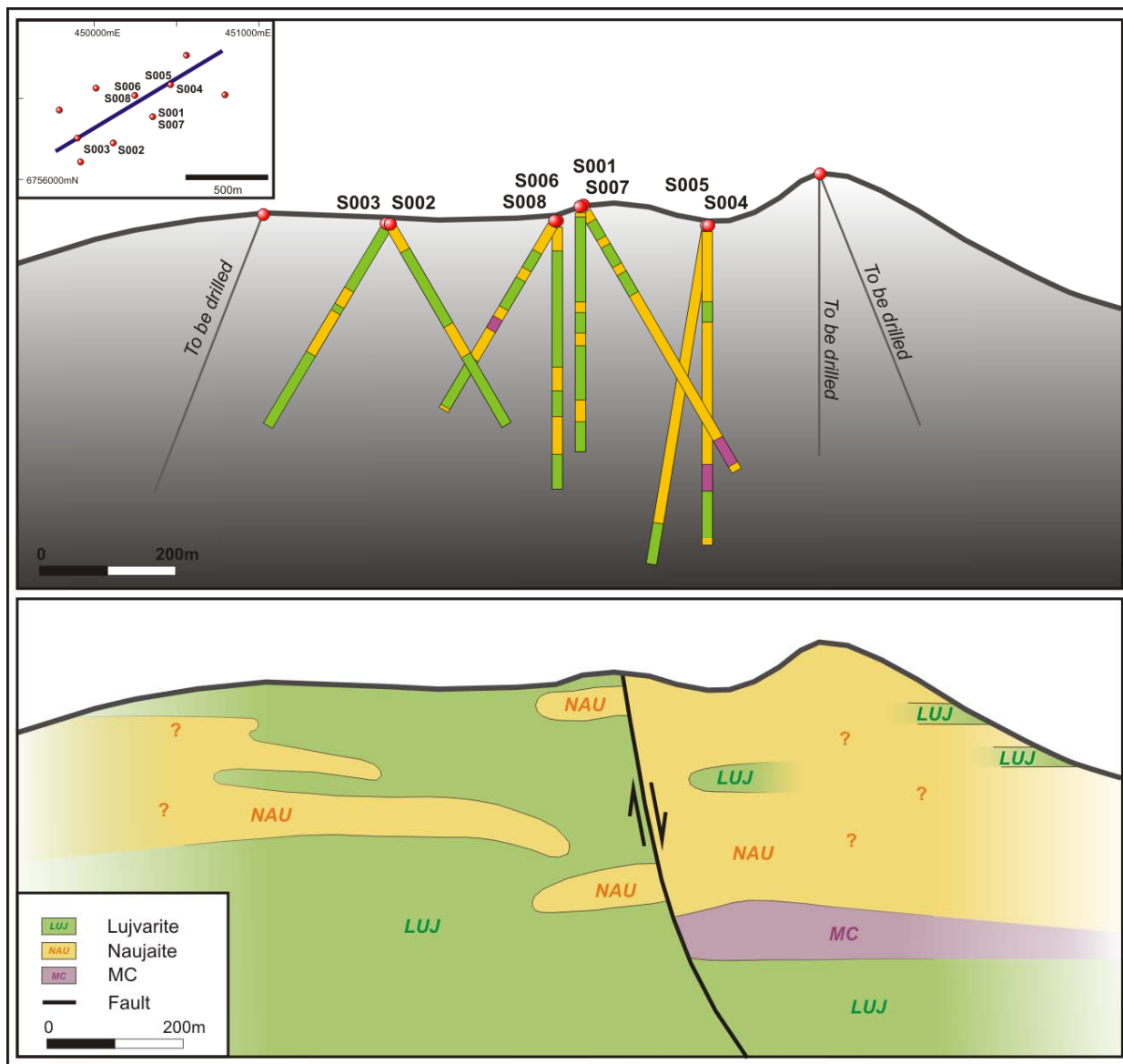


Figure 3. A pseudo-drill section across the initial holes drilled at Zone 2 (top), with a schematic geological interpretation below. The section is oriented WSW-ENE. The geological interpretation is enhanced by the extensive outcrops in the slopes to Tunugliarfik fjord (Figure 1). A fault downdrops the lujavrite sequence to the east, but the lujavrite section remains open to the north, east, west and at depth.

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The seven holes drilled so far have intersected lujavrite across a strike length of approximately 1km. The lujavrite layers are sub-horizontal, and are commonly greater than 50 m in thickness, sometimes greater than 100m (Figure 3). Most holes have been drilled on the west side of a fault where lujavrite has been intersected from near the top of the hole. On the east side of the fault, the lujavrite sequence appears to be down-dropped and is overlain by a thicker layer of naujaite (Figure 3). Samples will be shipped from Greenland at the completion of the 2010 field season, and assay results are expected in the fourth quarter of 2010.

Summary

Initial drilling at **Zone 2**, a new multi-element prospect 6km south of Kvanefjeld, has unearthed a large new body of black lujavrite; the host-rock to multi-element ores at Kvanefjeld. Medium-coarse grained (MC) lujavrite, host to higher-grade ores at Kvanefjeld, has also been intersected at depth. Lujavrite has now been intersected across a 1000m section, and remains open to the north, east and west, as well as at depth. The initial drill holes completed at **Zone 2** emphasize the multi-element resource potential of the northern Ilimaussaq Complex. The drill program will conclude in mid-August, and samples will be shipped at the completion of the program. Assay results are expected in the fourth quarter of 2010.

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ABOUT GREENLAND MINERALS AND ENERGY LTD.

Greenland Minerals and Energy Ltd (ASX – GGG) is an exploration and development company focused on unlocking the mineral riches of southern Greenland. The Company's flagship project is the Kvanefjeld multi-element deposit (Rare Earth Elements, Zinc, Uranium), 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 mining operation. For further information on Greenland Minerals and Energy visit <http://www.ggg.gl> or contact:

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Greenland Minerals and Energy Ltd is aware of and respects the Greenlandic government stance on uranium exploration and development in Greenland – which is currently a zero tolerance approach to the exploration and exploitation of uranium. Any potential change toward the current stance of zero tolerance is not expected until after the public consultation and review process is concluded in the coming months.

The Company is currently advancing the Kvanefjeld Project, recognised as the world's largest undeveloped JORC compliant resource of rare earth oxides (REO), in a multi-element deposit that is inclusive of 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 the community discussion on the social and economic benefits associated with the development of the Kvanefjeld Project.

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Jeremy Whybrow, who is a Member of The Australasian Institute of Mining and Metallurgy.

Jeremy Whybrow is a director of the Company.

Jeremy Whybrow has sufficient experience which is 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 in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Jeremy Whybrow consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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Appendix 1.

Kvanefjeld Multi-Element Resource Statement, June, 2009

At U ₃ O ₈ % cutoff grades ¹	Tonnes (million)	U ₃ O ₈ % ²	U ₃ O ₈ lb/t	TREO% ³	Zn%	Resource category
0.015	365	0.028	0.62	1.06	0.22	Indicated
	92	0.027	0.59	1.12	0.22	Inferred
	457	0.028	0.62	1.07	0.22	TOTAL
0.020	276	0.032	0.70	1.13	0.23	Indicated
	63	0.031	0.69	1.21	0.24	Inferred
	339	0.032	0.70	1.14	0.23	TOTAL
0.025	207	0.035	0.77	1.20	0.23	Indicated
	43	0.036	0.78	1.31	0.25	Inferred
	250	0.035	0.77	1.22	0.24	TOTAL

1. There is greater coverage of assays for uranium than other elements owing to historic spectral assays. U₃O₈ has therefore been used to define the cutoff grades to maximise the confidence in the resource calculations.
 2. Additional decimal places do not imply an added level of precision.
 3. 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.

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