GREENLAND
MINERALS AND ENERGY LTD

ASX: GGG, GGGO

Exploring the highly-prospective Ilimaussaq Intrusive Complex, favourably located near the southern tip of Greenland

619 Mt JORC-code compliant multi-element resource (REE, U, Zn) defined at Kvanefjeld plateau, with new satellite deposits recently discovered

Pre-Feasibility Study indicates potential for an economically robust, long life mine

Greenland Minerals and Energy Ltd is a mineral exploration and development company positioning itself to become the world's premier supplier of Rare Earth Elements.

The company is listed on the Australian Securities Exchange.

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March 2011 Quarterly Report

Friday, 15th April, 2011

Highlights

- Release of regional drill results confirms the discovery of three new multi-element zones (REEs, U, Zn) within the northern Ilimaussaq project area;
  - *Intercepts include **185 m @ 1.2% TREO*, 440 ppm U_3O_8***
  - *New zones provide opportunity to significantly expand resources*
- New resource estimate confirms Kvanefjeld's status as the world's most significant undeveloped REE deposit**
  - *Significant increase in Indicated and total resources*
  - *Contained metal of 6.6 Mt TREO, 350 Mlbs U_3O_8 and 3 Blbs Zn (TREO includes 0.24 Mt HREO, 0.53 Mt Y_2O_3)*
  - *Near surface, higher-grade zones defined, including 122 Mt @ 1.4% TREO, 404ppm U_3O_8 (0.05% heavy REO, 0.12% Y_2O_3)*
- Contracts awarded for key social and environmental impact assessments

*TREO = rare earth oxides in the lanthanide series plus yttrium oxide
**world's largest rare earth resource as defined by internationally-recognised reporting codes

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Introduction

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 project *(both light and heavy rare earth elements, uranium, and zinc)* through the feasibility phase and into mine development.

Kvanefjeld is located within the Company's license over the northern Ilimaussaq Intrusive Complex; a unique geological entity that is highly prospective for specialty metals. Mineral resources at Kvanefjeld now stand at **619 Mt**, and new deposits have recently been discovered in the broader project area (see dill intercepts reported in recent company announcements). Kvanefjeld is a highly-accessible resource that outcrops on a broad plateau, with the higher grade portions located close to ground surface.

An *Interim Report* on the Kvanefjeld pre-feasibility study was released in February 2010 that indicates the potential for the multi-element resources to sustain a large-scale mining operation for decades (*for more information visit the Company's website at* http://www.ggg.gl).

The Company's aim is to be a cost-effective producer of metals of fundamental strategic importance and value to tomorrow's world. Rare earth elements (REEs) are now recognised as being critical to the global manufacturing base of many emerging consumer items and green technologies. However, China controls more than 95% of global REE supply, and has maintained a policy of significantly reducing export quotas. This continues to raise serious concerns to non-Chinese consumers over the long-term stability of REE supply and pricing, at a time when REE-demand continues to grow.

March Quarter Activities

The key developments for GMEL during the March Quarter were the finalization of a new resource estimate for the Kvanefjeld deposit, and the announcement of regional multi-element drill intercepts. These two important steps firstly served to increase the size and quality of the Kvanefjeld resource, and secondly, to demonstrate that Kvanefjeld is just one of several significant REE-U-Zn deposits within the northern Ilimaussaq Complex.

Technical work programs are proceeding on schedule, and further key appointments were made during the quarter. GMEL awarded contracts for the social and environmental impact assessments, which form a critical part of the definitive feasibility process. Internationally-recognised consultancy firms Grontmij/Carl Bro and Orbicon have been appointed to lead the studies.

Rare earth prices have continued to surge during the March Quarter with Chinese export cuts placing further pressure on supply. The profound increase in rare earth pricing has increased the in-situ value of the multi-element resources at Kvanefjeld to > $1500/tonne (USD).

Multi-Element (REEs, U, Zn) Drill Intercepts Confirm New Discoveries

The northern Ilimaussaq Complex is characterized by broadly sub-horizontal layers. An unusual form of nepheline syenite called lujavrite forms an internal layer that locally outcrops, and is the host to REE-uranium-zinc mineralization. The most extensive area of outcropping lujavrite occurs at Kvanefjeld, which has been the focal point of prior resource definition drilling. However, there are other areas of outcropping lujavrite, and a growing list of evidence to suggest that these outcropping zones are part of a large interconnected body of lujavrite, most of which occurs at depth beneath the overlying rock unit called naujaite.

Figure 1. View over GMEL's multi-element project on the northern Ilimaussaq Complex in Greenland. Resources have been defined at Kvanefjeld, with Steenstrupfjeld, Zone 2 and Zone 3 representing new target areas. The distance from Kvanefjeld to Zone 2 is 6km.

GMEL conducted geological and geophysical investigations into areas of outcropping lujavrite outside Kvanefjeld and established three initial focal points for resource definition. The first area occurs to the immediate northeast of Kvanefjeld, and is known as Steenstrupfjeld. The

remaining two areas are presently referred to as Zones 2 and 3. Zone 2 occurs approximately 6 km south of Kvanefjeld. Zone 3 occurs along the northeastern margin approximately 7 km from Kvanefjeld.

The initial drill holes confirm the presence of extensive multi-element mineralization at each of the three new areas.

Key intercepts include:

Zone 2	*hole ID*	*S006*	185m	@ 1.2% TREO, 442 ppm U_3O_8, 0.34% Zn
		S002	131m	@ 1.3% TREO, 447 ppm U_3O_8, 0.34% Zn
		S001	116m	@ 1.2% TREO, 440 ppm U_3O_8, 0.34% Zn
		S003	42m	@ 1.4% TREO, 463 ppm U_3O_8, 0.39% Zn
		S003	46m	@ 1.5% TREO, 415 ppm U_3O_8, 0.37% Zn
Zone 3		*N003*	116m	@ 1.3% TREO, 363 ppm U_3O_8, 0.35% Zn
		N002	43m	@ 1.4% TREO, 379 ppm U_3O_8, 0.38% Zn
		N004	28m	@ 1.2% TREO, 460 ppm U_3O_8, 0.36% Zn
		N001	18m	@ 1.5% TREO, 462 ppm U_3O_8, 0.32% Zn
Steenstrupfjeld		*K154*	44m	@ 1.4% TREO, 328 ppm U_3O_8, 0.30% Zn
			22m	@ 1.3% TREO, 377 ppm U_3O_8, 0.35% Zn

Of the twelve holes drilled at Zone 2, all have intersected mineralized lujavrite (host to resources at Kvanefjeld), and nine holes have each returned *greater than 100m* in cumulative intercepts.

In 2011, GMEL will conduct a drilling campaign to establish initial resource estimates for Zone 2, and Zone 3. The program will aim to further increase the overall resource base with a focus on adding tonnes at the upper end of the grade range. This will serve to significantly strengthen the economics of the project. Importantly, mineralization at Zones 2 and 3 is similar to that at Kvanefjeld, and features the same mineral set. Therefore, all zones are amenable to the same process route, which is currently under development.

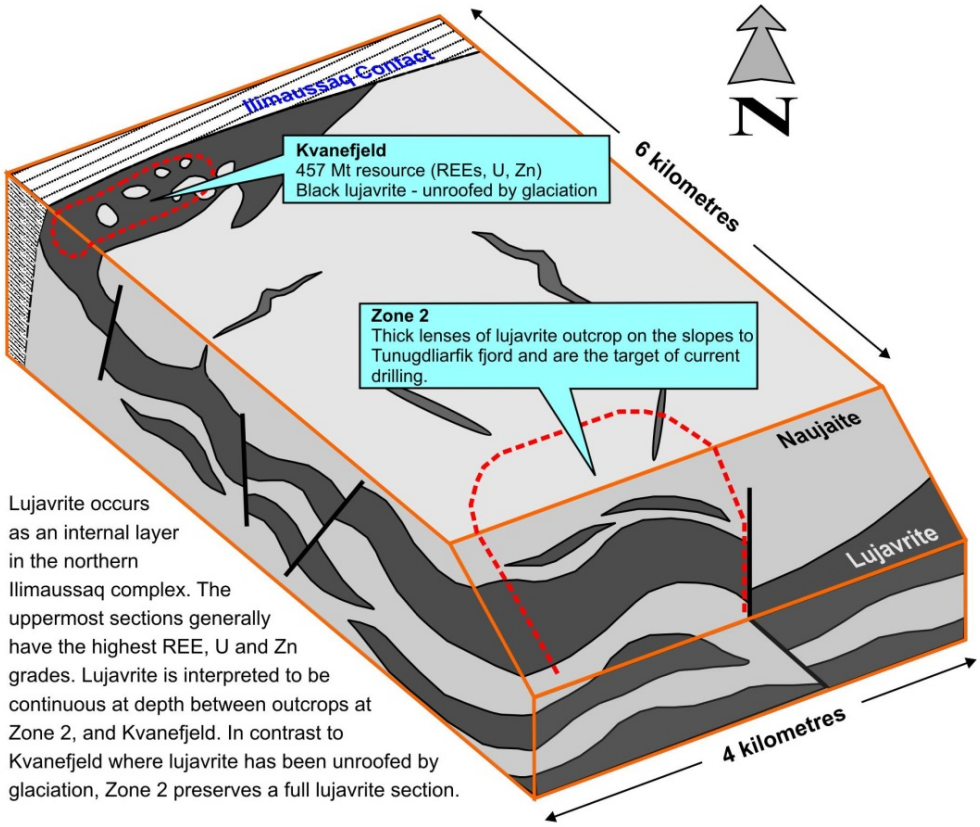


Figure 2. Schematic block diagram illustrating the broad sub-horizontal geometry of the northern Ilimaussaq Complex, and the relationship between Kvanefjeld and Zone 2. The Company is aiming to establish resources at each of the areas of significant outcrop of lujavrite, but all mineralised zones are connected at depth.

A New Resource Estimate for the Kvanefjeld REE-U-Zn Deposit

In 2010, GMEL set out to develop an improved resource estimate for Kvanefjeld, with a focus on converting Inferred resources into Indicated resources. A new, upgraded resource estimate was released in March, 2011. The new resource estimate has been prepared by SRK Consulting (SRK), and is compliant with the code for reporting mineral resources set out by the Australian Joint Ore Reserve Committee (JORC). The significant improvements in the new estimate can be attributed to further drilling at Kvanefjeld undertaken during the 2009 and 2010 field seasons, the generation of a new geological model, and the development by GMEL in conjunction with SRK of a methodology to domain the unique multi-element resources. The higher grade, near surface zones that have now been defined provide the opportunity to significantly improve on mine scheduling, which will serve to strengthen the projects economics (e.g. at a 350ppm U_3O_8 cutoff - 122 Mt @ 1.4% TREO, 404 ppm U_3O_8, and at a 300ppm U_3O_8 cut-off - 200 Mt @ 1.3% TREO, 373ppm U_3O_8).

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.

Highlights of the new resource estimate include:

- Total resource of 619 Mt *(an increase of 162 Mt)**
- Indicated resources now 437 Mt *(an increase of 72 Mt)**
- Contained metal inventory of 6.6 Mt TREO (Total Rare Earth Oxide), 350 Mlbs U_3O_8 and 3 Blbs Zn *(TREO includes 0.24 Mt heavy REO, 0.53 Mt Y_2O_3)*
- Near surface, higher grade zones defined, including 122 Mt @ 1.4% TREO, 404ppm U_3O_8 *(0.05% heavy REO, 0.12% Y_2O_3)*
- Resources domained by geochemical and mineralogical characteristics, in line with metallurgical process development and mining studies

Contracts Awarded for Key Social and Environmental Studies

In early February, GMEL announced that internationally-recognised consultancy firms Grontmij/Carl Bro and Orbicon have been appointed to lead upcoming social and environmental impact assessments on the Kvanefjeld multi-element project (rare earth elements, uranium, zinc). Both organizations have extensive experience working in Greenland, and have conducted background and baseline studies for GMEL on the Kvanefjeld project. The social and environmental impact assessments form critical components of a definitive feasibility study in Greenland.

Grontmij/Carl Bro is one of Europe's largest consultancy groups that provide services across a wide range of disciplines including construction and infrastructure, energy and climate, and environment. Part of their Denmark-based team specialises in social studies, specifically Social Impact Assessments (SIAs), and has a deep understanding of the social considerations of Greenland.

Orbicon is a Danish consultancy firm that provides services in the fields of the environment and environmental technologies, and construction. Orbicon's structure is based on a recent merger between an environmental consultancy firm and a construction engineering company. The environmental arm of Orbicon specializes in the preparation of Environmental Impact Assessments (EIAs) for both land- and marine-based projects. Orbicon has conducted studies for several mineral projects in Greenland, and has a strong understanding of the environmental

considerations specific to Greenland. Orbicon also has a strong working-relationship with Greenland's Bureau of Minerals and Petroleum (BMP), which is important in establishing the right protocols to meet the environmental requirements of individual projects. The BMP provide the guidelines for EIAs in Greenland.

In early April, GMEL in conjunction with representatives from Grontmij / Carl Bro and Orbicon conducted a series of stakeholder meetings in Greenland as part of the public consultation process designed to establish the 'terms of reference' for the respective studies.

Rare Earth Prices Continue to Climb

Rare earth prices continue to increase into 2011, following the substantial price gains that occurred through 2010. The surge in REE prices has largely been due to further restrictions in Chinese export quotas that are creating imminent short supply to the rest of the world. In late-December 2010, China's commerce ministry announced a further 35% reduction in REE exports for the first half of 2011. With China currently controlling greater than 95% of global REE supply, a continued program of reducing export quotas is having a massive impact on global REE supply and pricing. In order to meet the rapidly emerging void in supply, a new generation of REE-producing mines is needed, outside China.

Table 2. In-situ valuation of Kvanefjeld ore, as of April 2011.

Ore Component	Value (US$)/kg* 11/4/2011	US$/tonne Kvanfjeld Ore	% by Value
Lanthanum Oxide	$123.00	$400.00	23.4
Cerium Oxide	$120.00	$597.00	34.9
Neodymium Oxide	$220.00	$330.00	19.3
Praseodymium Oxide	$215.00	$108.00	6.3
Dysprosium Oxide	$640.00	$83.00	4.9
Terbium Oxide	$1,085.00	$13.00	0.8
Yttrium Oxide	$127.00	$128.00	7.5
Zinc	$2.46	$6.15	0.4
Uranium Oxide	$130.00	$45.50	2.7
Total		$1,710.65	

*La-Tb prices from Metal Pages (China export FOB), Y from Asia Metal, U spot price, Zn – LME. Values based on resource grades in the 200 ppm U_3O_8 cutoff.

According to Metal Pages, as of early April 2011, prices of individual rare earth oxides of 99% purity (China export FOB) had risen such that the rare earth basket for the Kvanefjeld ores is now valued at approximately **$150 USD/kg** (in-situ).

The approximate in-situ value per tonne of ore at Kvanefjeld is now $1700 (USD). Over 95% of the in-situ value is attributed to rare earth oxides, with uranium representing approximately 3% (Table 1). In comparison, a copper-gold deposit with grades of 1% Cu and 0.75g/tonne Au would have an in-situ value at current metal prices of $133/tonne.

Corporate Activities

GMEL executives spent much of March presenting to international audiences in political, commercial and technical forums. These included presentations in Brussels and Washington D.C. where political interest in future rare earth supply is now a major topic. The upgraded Kvanefjeld resource and GMEL's new deposit discoveries mean that Greenland's percentage of global rare earth resources continues to grow, and its importance to future rare earth supply is now widely recognised.

Commercially-focussed presentations were made in Europe and Canada (PDAC) to update the investment community on key developments and to continue to build GMEL's growing international profile.

Tenure, Permitting and Project Location

Tenure

Greenland Minerals and Energy Ltd (ABN 85 118 463 004) is a company listed on the Australian Securities Exchange. The Company is conducting exploration of EL2005/28 in accordance with a joint venture agreement. The Company currently controls 61% of the license (with options to move to 100%). The Company, through its subsidiary, is also the operator of the project.

The tenement is classified as being for the exploration of minerals. The project hosts significant multi-element mineralisation within the Ilimaussaq Intrusive Complex.

Historically the Kvanefjeld deposit, which comprises just a small portion of the Ilimaussaq Complex, was investigated by the Danish Authorities. The project has received significant past exploration in the form of drilling, geophysics, geochemistry, an exploratory adit and numerous and varying metallurgical test work and technical papers.

Permitting

Greenland Minerals and Energy Limited is permitted to fully evaluate the Kvanefjeld multi-element project. Under the evaluation permit, the Company can undertake and report on all studies that form part of assessing the feasibility of a multi-element mining project at Kvanefjeld. Critical components include the *Environmental and Social Impact Assessments*, which are to follow the guidelines established by Greenland's Bureau of Minerals and Petroleum (BMP).

Location

The exploration lease covers an area of 80km^2 in Nakkaalaaq North on the southwest coast of Greenland. The project is located around 46° 00'W and 60 55'N.

The town of Narsaq is located approximately 7 kilometres to the south west of the license area. Narsaq is connected to Narsarsuaq International Airport by commercial helicopter flights operated by Air Greenland. Local transport between settlements is either by boat or by helicopter.

The Company has office facilities in Narsaq where storage, maintenance, core processing, and exploration activities are managed. This office supports the operational camp located on the Kvanefjeld Plateau above the town where the operational staff are housed.

Access to the Kvanefjeld plateau (at approximately 600m asl) is generally gained by helicopter assistance from the operations base located on the edge of the town of Narsaq. It is possible to access the base of the plateau by vehicle and then up to the plateau by a track.

Capital Structure

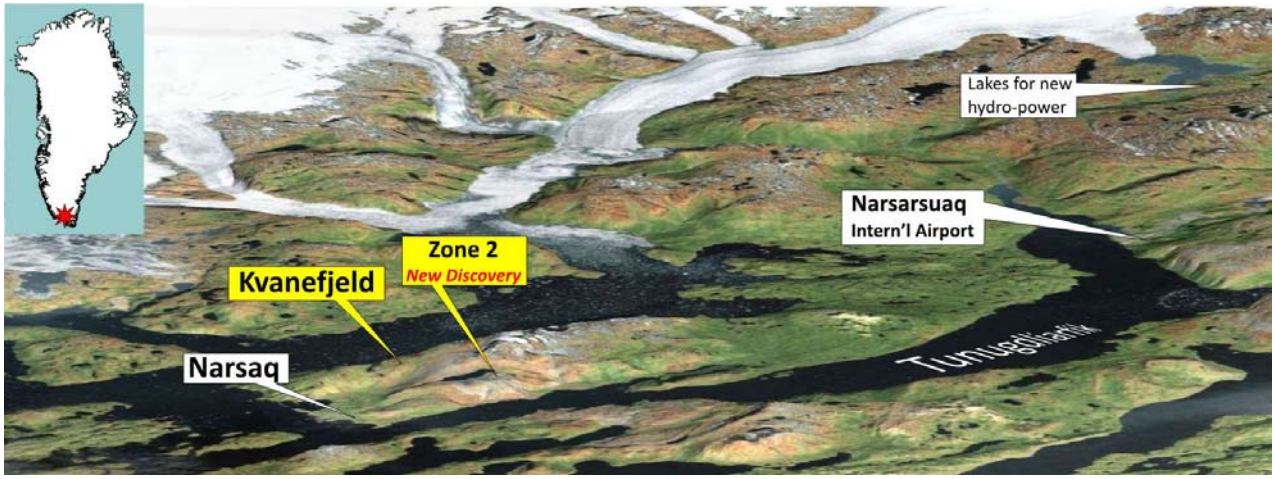
Total Ordinary shares:	**306,134,747**
Quoted options exercisable 20c:	85,140,917
Unquoted unvested directors options exercisable 20c:	19,800,000
Unquoted options exercisable 20c:	1,000,000
Unquoted options exercisable 50c:	5,400,000
Unquoted options exercisable 1.00:	6,250,000
Unquoted options exercisable 1.50:	2,388,840

Please visit the company's website at www.ggg.gl where recent news articles, commentary, and company reports can be viewed.

Yours faithfully,

Roderick McIllree

Managing Director
Greenland Minerals and Energy Ltd



View over the broader geography of GMEL's multi-element project on the northern Ilimaussaq Complex. The fjord system is open to the north Atlantic shipping lanes all year round. The distance from Narsaq to Narsarsuaq International Airport is 45km.

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, 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:

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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.