

Appendix 3B

New issue announcement, application for quotation of additional securities and agreement

Information or documents not available now must be given to ASX as soon as available. Information and documents given to ASX become ASX's property and may be made public.

Introduced 1/7/96. Origin: Appendix 5. Amended 1/7/98, 1/9/99, 1/7/2000, 30/9/2001, 11/3/2002, 1/1/2003.

Name of entity

Greenland Minerals and Energy Limited

ABN

85 118 463 004

We (the entity) give ASX the following information.

Part 1 - All issues

You must complete the relevant sections (attach sheets if there is not enough space).

- 1 +Class of +securities issued or to be issued

Quoted shares

- 2 Number of +securities issued or to be issued (if known) or maximum number which may be issued

5,982,906 ordinary shares

- 3 Principal terms of the +securities (eg, if options, exercise price and expiry date; if partly paid +securities, the amount outstanding and due dates for payment; if +convertible securities, the conversion price and dates for conversion)

Ordinary fully paid shares

+ See chapter 19 for defined terms.

4	Do the +securities rank equally in all respects from the date of allotment with an existing +class of quoted +securities? If the additional securities do not rank equally, please state: • the date from which they do • the extent to which they participate for the next dividend, (in the case of a trust, distribution) or interest payment • the extent to which they do not rank equally, other than in relation to the next dividend, distribution or interest payment	Yes	
5	Issue price or consideration	5,982,906 – 58.5 cents per share	
6	Purpose of the issue (If issued as consideration for the acquisition of assets, clearly identify those assets)	Shares were issued in accordance with the terms of the settlement extension announced to the market 13 Dec 2011. The shares issued are subject to a holding lock, which is currently to the 15 June 2012.	
7	Dates of entering +securities into uncertificated holdings or despatch of certificates	20 Dec 2011	
8	Number and +class of all +securities quoted on ASX (including the securities in clause 2 if applicable)	Number	+Class
		416,390,488	FPO

	Number	+Class
9	Number and +class of all +securities not quoted on ASX (including the securities in clause 2 if applicable)	7,000,000 16,450,000 750,000 Performance Options Annexure 1. Performance rights Annexure 2 and 3. Employee options Annexure 4. Terms of options as annexed below.
10	Dividend policy (in the case of a trust, distribution policy) on the increased capital (interests)	N/A

Part 3 - Quotation of securities

You need only complete this section if you are applying for quotation of securities

34 Type of securities
(tick one)

(a) Securities described in as A and B of item 1 of Part 1

(b) * All other securities

Example: restricted securities at the end of the escrowed period, partly paid securities that become fully paid, employee incentive share securities when restriction ends, securities issued on expiry or conversion of convertible securities

Quotation agreement

1 +Quotation of our additional +securities is in ASX's absolute discretion. ASX may quote the +securities on any conditions it decides.

2 We warrant the following to ASX.

- The issue of the +securities to be quoted complies with the law and is not for an illegal purpose.
- There is no reason why those +securities should not be granted +quotation.
- An offer of the +securities for sale within 12 months after their issue will not require disclosure under section 707(3) or section 1012C(6) of the Corporations Act.

Note: An entity may need to obtain appropriate warranties from subscribers for the securities in order to be able to give this warranty

- Section 724 or section 1016E of the Corporations Act does not apply to any applications received by us in relation to any +securities to be quoted and

+ See chapter 19 for defined terms.

that no-one has any right to return any +securities to be quoted under sections 737, 738 or 1016F of the Corporations Act at the time that we request that the +securities be quoted.

- We warrant that if confirmation is required under section 1017F of the Corporations Act in relation to the +securities to be quoted, it has been provided at the time that we request that the +securities be quoted.
 - If we are a trust, we warrant that no person has the right to return the +securities to be quoted under section 1019B of the Corporations Act at the time that we request that the +securities be quoted.
- 3 We will indemnify ASX to the fullest extent permitted by law in respect of any claim, action or expense arising from or connected with any breach of the warranties in this agreement.
- 4 We give ASX the information and documents required by this form. If any information or document is not available now, will give it to ASX before +quotation of the +securities begins. We acknowledge that ASX is relying on the information and documents. We warrant that they are (will be) true and complete.

Sign here:.....

Company Secretary

Date: 22 Dec 2011

Print name: Miles Guy

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ANNEXURE 1

Terms of performance options

The terms of the Performance Options are set out in this annexure.

2,800,000 Options have been issued to Roderick McIlree in 3 tranches being 900,000 tranche 1 Options, 950,000 tranche 2 Options and 950,000 tranche 3 Options.

2,100,000 Options have been issued to John Mair in 3 tranches being 700,000 tranche 1 Options, 700,000 tranche 2 Options and 700,000 tranche 3 Options.

2,100,000 Options will be issued to Shaun Bunn in 3 tranches of 700,000 Options each, namely 700,000 tranche 1 Options, 700,000 tranche 2 Options and 700,000 tranche 3 Options

The difference in the terms of the Option tranches are as to share price vesting hurdles as set out below.

Terms of Options

The Options are issued in 3 tranches with vesting hurdles as follows:

- (a) Tranche 1 – will vest upon both the volume weighted average price of shares being \$3.75 or more for 10 consecutive Trading Days and 2 years continuous service for the Company from 1 April 2011 save that this continuous service vesting hurdle will be deemed to be satisfied in the event of a successful takeover bid where the bidder has acceptances for greater than 50% of the Shares in the Company.
- (b) Tranche 2 – will vest upon both the volume weighted average price of shares being \$5.00 or more for 10 consecutive Trading Days and 2 years continuous service for the Company from 1 April 2011 save that this continuous service vesting hurdle will be deemed to be satisfied in the event of a successful takeover bid where the bidder has acceptances for greater than 50% of the Shares in the Company.
- (c) Tranche 3 – will vest upon both the volume weighted average price of shares being \$6.25 or more for 10 consecutive Trading Days and 2 years continuous service for the Company from 1 April 2011 save that this continuous service vesting hurdle will be deemed to be satisfied in the event of a successful takeover bid where the bidder has acceptances for greater than 50% of the Shares in the Company.

The terms of the Options are otherwise as follows:

- 1. Each Option entitles the holder to one Share.
- 2. The Options are exercisable at any time prior to 5.00 pm Western Standard Time on 31 August 2013 ("**Expiry Date**").
- 3. The exercise price of the Options is \$1.75 per Option.
- 4. Upon vesting, the Options are freely transferable.
- 5. The Company will provide to each Option holder a notice that is to be completed when exercising the Options ("**Notice of Exercise**"). Subject to vesting, the Options may be exercised wholly or in part by completing the Notice of Exercise and delivering it together with payment to the secretary of the Company to be received any time prior to the Expiry Date. The Company will process all relevant documents received at the end of every calendar month.
- 6. Upon the exercise of an Option and receipt of all relevant documents and payment, the holder in accordance with paragraph 5 will be allotted and issued a Share ranking pari passu with the then issued Shares.

7. There will be no participating rights or entitlements inherent in the Options and the holders will not be entitled to participate in new issues of capital which may be offered to Shareholders during the currency of the Options. However, the Company will ensure that for the purposes of determining entitlements to any such issue, the record date will be at least 7 business days after the issue is announced. This will give Optionholders the opportunity (where Options have vested) to exercise their Options prior to the date for determining entitlements to participate in any such issue.
8. If there is a bonus issue ("**Bonus Issue**") to Shareholders, the number of Shares over which an Option is exercisable will be increased by the number of Shares which the holder would have received if the Option had been exercised before the record date for the Bonus Issue ("**Bonus Shares**"). The Bonus Shares must be paid up by the Company out of profits or reserves (as the case may be) in the same manner as was applied in the Bonus Issue, and upon issue will rank equally in all respects with the other Shares on issue as at the date of issue of the Bonus Shares.
9. In the event of any reconstruction (including consolidation, sub-division, reduction or return) of the issued capital of the Company prior to the Expiry Date, all rights of an Optionholder are to be changed in a manner consistent with the Listing Rules.
10. In the event that the Company makes a pro rata issue of securities, the exercise price of the Options will be adjusted in accordance with the formula set out in Listing Rule 6.22.2.

ANNEXURE 2

Terms of Performance Rights

The following are the terms of the Performance Rights:

1. The Performance Rights are non-transferable.
2. The rights under Performance Rights are personal and a Performance Right does not confer any entitlement to attend or vote at meetings of the Company, to dividends, participation in new issues of securities or entitlement to participate in any return of capital.
3. The Performance Rights vest upon the satisfaction of any performance hurdles specified at the time of issue.
4. The Performance Rights lapse upon the Eligible Employee ceasing to be employed or on the death, incapacity or disability of the Eligible Employee or on the failure to satisfy any performance hurdles within a required time of the issue of the Performance Rights.
5. Upon vesting, one (1) Share will be issued for every one (1) Performance Right. The Shares will rank equally in all respects with the existing Shares.
6. If the Company makes a bonus issue of Shares, then the holder of the Performance Right upon vesting will be entitled to have issued to it the increased number of Shares that it would have received if the Performance Right had vested and the holder acquired Shares in respect of the Performance Right before the record date for the bonus issue.
7. In the event of any reconstruction (including consolidation, sub-division, reduction or return) of the issued capital of the Company prior to the vesting date, the number of Performance Rights will be reconstructed in a manner consistent with the ASX Listing Rules.

Performance/Vesting Hurdles

The Performance Rights will be issued in 3 tranches with performance/vesting hurdles as follows:

- Tranche 1 - will vest upon both the volume weighted average price of Shares being \$1.50 or more for 10 consecutive Trading Days and 2 years continuous service for the Company from 1 April 2011 save that this continuous service vesting hurdle will be deemed to be satisfied in the event of a successful takeover bid where the bidder has acceptances for greater than 50% of the Shares in the Company.
- Tranche 2 - will vest upon both the volume weighted average price of Shares being \$1.85 or more for 10 consecutive Trading Days and 2 years continuous service for the Company from 1 April 2011 save that this continuous service vesting hurdle will be deemed to be satisfied in the event of a successful takeover bid where the bidder has acceptances for greater than 50% of the Shares in the Company.
- Tranche 3 - will vest upon both the volume weighted average price of Shares being \$2.50 or more for 10 consecutive Trading Days and 2 years continuous service for the Company from 1 April 2011 save that this continuous service vesting hurdle will be deemed to be satisfied in the event of a successful takeover bid where the bidder has acceptances for greater than 50% of the Shares in the Company.

The Performance Rights will lapse if the performance/vesting hurdles are not satisfied within 3 years of the date of the Meeting

ANNEXURE 3

Number of Performance Rights and the Performance Hurdles

1. Number of Performance Rights to directors

Person	Tranche 1	Tranche 2	Tranche 3	Total
Roderick McIlree	900,000	900,000	900,000	2,700,000
Michael Hutchinson	400,000	500,000	500,000	1,400,000
Jeremy Whybrow	300,000	300,000	400,000	1,000,000
Simon Cato	100,000	200,000	300,000	600,000
Tony Ho	200,000	200,000	200,000	600,000
John Mair	700,000	700,000	700,000	2,100,000
				8,400,000

2. Number of Performance Rights to employees

	Tranche 1	Tranche 2	Tranche 3	Total
Employees	2,400,000	2,525,000	3,125,000	8,050,000

ANNEXURE 4

TERMS OF OPTIONS – employee options

The terms of the Options are otherwise as follows:

1. Each Option entitles the holder to one Share.
2. The Options are exercisable at any time prior to 5.00 pm Western Standard Time on 31 March 2013 ("**Expiry Date**").
3. The exercise price of the Options is \$0.25 per Option.
4. The Options are freely transferable.
5. The Company will provide to each Option holder a notice that is to be completed when exercising the Options ("**Notice of Exercise**"). The Options may be exercised wholly or in part by completing the Notice of Exercise and delivering it together with payment to the secretary of the Company to be received any time prior to the Expiry Date. The Company will process all relevant documents received at the end of every calendar month.
6. Upon the exercise of an Option and receipt of all relevant documents and payment, the holder in accordance with paragraph 5 will be allotted and issued a Share ranking pari passu with the then issued Shares.
7. There will be no participating rights or entitlements inherent in the Options and the holders will not be entitled to participate in new issues of capital which may be offered to Shareholders during the currency of the Options. However, the Company will ensure that for the purposes of determining entitlements to any such issue, the record date will be at least 7 business days after the issue is announced. This will give Optionholders the opportunity to exercise their Options prior to the date for determining entitlements to participate in any such issue.
8. If there is a bonus issue ("**Bonus Issue**") to Shareholders, the number of Shares over which an Option is exercisable will be increased by the number of Shares which the holder would have received if the Option had been exercised before the record date for the Bonus Issue ("**Bonus Shares**"). The Bonus Shares must be paid up by the Company out of profits or reserves (as the case may be) in the same manner as was applied in the Bonus Issue, and upon issue will rank equally in all respects with the other Shares on issue as at the date of issue of the Bonus Shares.
9. In the event of any reconstruction (including consolidation, sub-division, reduction or return) of the issued capital of the Company prior to the Expiry Date, all rights of an Optionholder are to be changed in a manner consistent with the Listing Rules.
10. In the event that the Company makes a pro rata issue of securities, the exercise price of the Options will be adjusted in accordance with the formula set out in Listing Rule 6.22.2.

+ See chapter 19 for defined terms.

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:

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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.

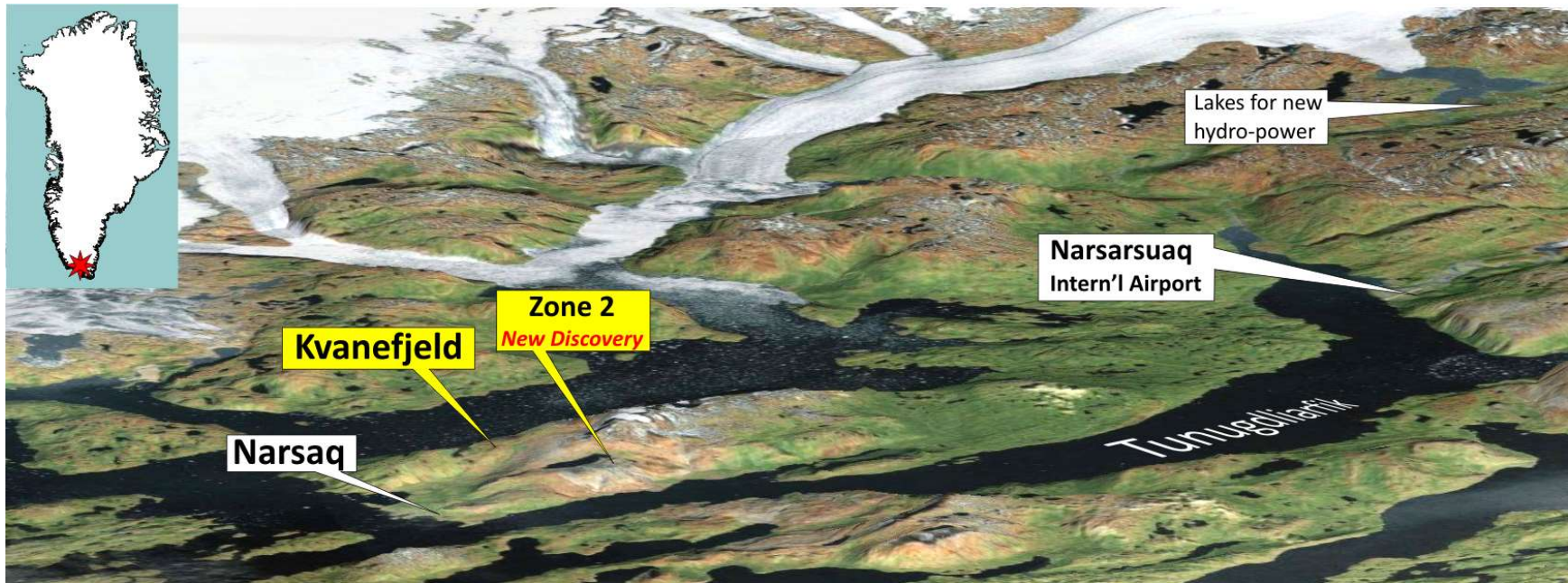
Table 1. Statement of Identified Mineral Resources, Kvanefjeld Multi-Element Project, March 2011.

Cut-off (U ₃ O ₈ ppm) ¹	Multi-Element Resources, Classification, Tonnage and Grade									Contained Metal				
	Classification	M tonnes Mt	TREO ² ppm	U ₃ O ₈ ppm	LREO ppm	HREO ppm	REO ppm	Y ₂ O ₃ ppm	Zn ppm	TREO Mt	HREO Mt	Y ₂ O ₃ Mt	U ₃ O ₈ M lbs	Zn 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

¹There 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.

²Total 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.



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.