

Greenland Minerals and Energy Ltd.

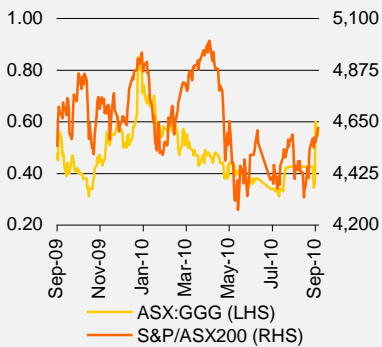
(Ticker: ASX: GGG)

September 14, 2010



Price (A\$): 0.565
Beta: 0.90
Debt/Equity Ratio: 0.00
Price/Book Ratio: 2.57
Target Price (A\$): 2.36
Listed Exchange: ASX

**Updated version as of September 14, 2010*



Strong Growth Prospects in REE Industry

Greenland Minerals and Energy Ltd. (Greenland or the Company) is an Australia based mineral exploration and development company, primarily focusing on rare earth elements (REE) in southern Greenland. The Company's current focus is on the Kvanefjeld project, a multi-element deposit (rare earth elements (REEs), uranium and zinc) located near the southwest tip of Greenland. Its subsidiaries include Chahood Capital Limited, Greenland Minerals and Energy (Trading) A/S.

We have valued the Company based on present value of future cash flows from its projects starting 2016 and a mine life of about 22 years (current estimate). With a discount rate of 14.8%, we arrive at a fair value of A\$2.36 for the stock.

Investment Arguments

- **Greenland – an emerging REE destination:** Greenland is a highly prospective, but underexplored, politically stable region. It is now opening up its vast resources to foreign investors as it has high prospects for mineral exploration due to its varied geology
- **Amendment to License terms by the Greenland government:** Following the recent discussions between the Greenland government and Company representatives, amendments have been made to the Standard Terms for Exploration Licenses that allow upon grant of application, the undertaking of feasibility studies concerning the health and safety issues in mining projects which involve radioactive and REE minerals, wherein, the main goal of the project is the other minerals and not the radioactive minerals. A recent press release by the government dated September 12, 2010 states that its policy of zero tolerance (on exploration of radioactive elements) continues and that the grant of the above license does not give right to explore or exploit radioactive elements. The Company has applied and is the first company to be approved under these new regulations
- **Kvanefjeld project - a world class project:** According to the evaluative study performed by Danish Atomic Energy Agency and Greenland, the Kvanefjeld deposit has high concentrations of REE elements and is the sixth largest uranium deposit in the world. The scale, continuity and near-surface location of the deposit, and the locale's potential to provide access to hydroelectric power, makes it an excellent operations base in Greenland
- **Strong financial estimates and pre-feasibility study results:** Though the Company is in very early stages of exploration, the financial estimates based on production expectations show a high level of promise with a 24% IRR and a payback period of just over five years, inclusive of two years of construction
- **Sound technical expertise of the management team:** The Company has a strong management team with vast experience in exploration. The depth, competence and global experience of the Company's management team are expected to be the key factor behind the success of the project
- **Growing REE market amid boom in green technologies:** REEs are fast emerging as strategically important commodities to the global manufacturing base. Uranium is a crucial base for clean and green energy supply for the future and the market analysis indicates that demand for rare earths and uranium is set to grow strongly over the next 20 years, giving significant opportunities to the Company

Recent News

08/03/2010- Greenland Minerals and Energy suspends trading halt pending government meeting

07/29/2010- New discovery for Greenland Minerals and Energy at Kvanefjeld

07/12/2010- Greenland Minerals secures \$21 million funding for Kvanefjeld

05/26/2010- Southern Greenland's newly amalgamated council officially offered support for the removal of the current 'zero tolerance' policy regarding uranium mining, and ongoing feasibility studies at Kvanefjeld

05/11/2010- Announces operational changes designed to assist its work program in 2010 as well as development of the Kvanefjeld multi-element deposit in Greenland

03/16/2010- Announces holding interest of Westrip Holding Limited

02/09/2010- Announces appointment of Michael Hutchinson as Executive Chairman

Shares in issue

249.91M

Market cap

A\$ 141.20M

52 Week High: A\$0.935

52 Week Low: A\$0.300

Company Overview

Greenland Minerals and Energy Limited (Greenland or the Company) is engaged in the acquisition, exploration, development and commercialization of projects in Greenland with a focus on the Kvanefjeld project. Kvanefjeld project is a multi-element deposit (rare earth elements [REEs], uranium, zinc) located near the southwest tip of Greenland. Its subsidiaries include 100% owned Chahood Capital Limited which owns a 61% interest in Greenland Minerals and Energy (Trading) A/S, the company that holds the license covering Kvanefjeld and the recently announced ZONE 2 discovery. The company also has options to move to 90% and 100% for A\$10m and A\$50m, respectively.

The stated aim of the Company is to identify large mineral deposits with the potential to underpin long term, economically robust mining operations. Its vision is to be one of the significant producers of commodities of fundamental strategic importance and value. Greenland achieves this through its technically-focused exploration, aggressive resource development programs, and its strong understanding of the fundamentals that drive the business of mineral exploration and development, globally.

The Company commenced operations with the acquisition of the exploration license over the northern Ilimaussaq Intrusive Complex, one that the company's geologists correctly identified as having extraordinary potential for Rare Earth Elements and uranium resources. Initially, the Danish government agencies had conducted exploration within the license area, focusing on the Kvanefjeld Plateau where an initial uranium resource had been defined in the 1970's by spectral logging of drill cores. During this phase of work, concentrations of other minerals of economic interest in the deposit remained largely unknown, along with the true value of the ores. Greenland then evaluated the geological setting and characteristics of the deposit citing a potentially greater than modest uranium occurrence. It concluded that the resources were those of a far larger scale and could contain economic concentrations of numerous other metals, particularly those of Rare Earth Elements (REEs).

After acquiring the project in mid-2007, the Company has conducted over 40km of diamond drilling into Kvanefjeld and has sampled more than 25,000 meters which have been assayed for around 36 elements. Further aggressive exploration on Zone 2 (6km to the south of Kvanefjeld) has identified a new area of similar ore bearing rock. Both of these discoveries are believed to part of a much larger system that is traceable over the entire incense area making this project possibly the largest REO project in the world. The ores are also strongly enriched in zinc and sodium fluoride. Several other highly prospective zones within the license area still await drill testing, heightening the extraordinary resource potential of the Ilimaussaq Complex. The Company recently announced that a 457 million tonne JORC-compliant multi-element resource (rare earth elements, zinc, and uranium) has already been defined at the Kvanefjeld plateau.

Mining Resources Overview

The Company's current flagship project, Kvanefjeld, is a huge multi-element deposit located near the southwest tip of Greenland. The Company holds about 61% interest in this project. The recent pre-feasibility studies of the field indicated that it could sustain a large-scale, economically-robust mining operation for decades.

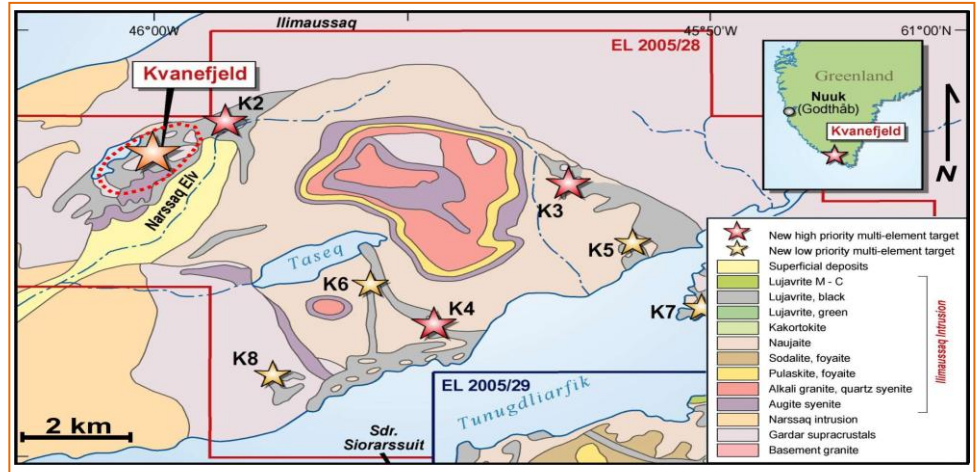
Kvanefjeld Project

Kvanefjeld, located near the southwest tip of Greenland, is an emerging multi-element deposit hosted within the Ilimaussaq Intrusive Complex. It is also one of the largest undeveloped JORC compliant resources of rare earth oxides in the world.

The Kvanefjeld multi-element project has the potential to become one of the world's largest suppliers of rare earth elements at a time when demand for these strategically important metals is soaring. China currently dominates global REE supply, but is now taking a long term strategic position on its REE resources and production, that is resulting in a substantial shortfall in global REE supply. The development of Kvanefjeld could see Greenland emerge as one of the world's major REE supply hubs and thereby creating a new multi-decade

industry to be formed in South Greenland. A multi-element production profile at Kvanefjeld with diversified revenue streams would serve to make Kvanefjeld a highly-competitive mining operation in the international arena, which importantly brings job security and stability.

Exhibit 1: Location of the Kvanefjeld REE-U Deposit. Fields labelled K2 through to K8 represent the Company’s new Multi-Element Exploration Targets



Source: Company

The Kvanefjeld deposit is located only 8km behind the coastal town of Narsaq, near the southern tip of Greenland. The field is located at an ideal position in Narsaq which features deep water ports open all year round, thereby providing potential access to hydroelectric power. The scale, continuity and near-surface location of the deposit make it an excellent operations base in Greenland for bulk-tonnage mining methods.

The Kvanefjeld deposit was previously evaluated by the Danish Atomic Energy Agency through the 1970s for a potential uranium resource. In mid-2007, Greenland embarked on an aggressive exploration program to further evaluate the Kvanefjeld deposit, with 10,022m of diamond core drilled in the 2007 field season. Post evaluation, Greenland confirmed high concentrations of REE elements and NaF that correlated strongly with elevated uranium concentrations. Thus, Kvanefjeld came to be recognized as a true, multi-element resource. The Company then moved rapidly to acquire the 11,000m of drill core on which the historic U resource was based, and submitted the core for geochemical assays. In August 2008, the Company released a latest JORC compliant inferred resource estimate on the Kvanefjeld deposit.

Greenland then undertook another aggressive exploration program in 2008 with the aim of drilling a further 15,000 to 20,000 meters of core, expanding the multi-element resource as well as moving inferred resources into the indicated category. During this study, a number of new multi-element exploration targets were identified (labeled from K2 to K8), located in close proximity to the Kvanefjeld deposit.

Exhibit 2: Kvanefjeld Multi-Element Resource Statement, June 2009

At U ₃ O ₈ % cutoff grades	Tons (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

Source: Company

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 maximize 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

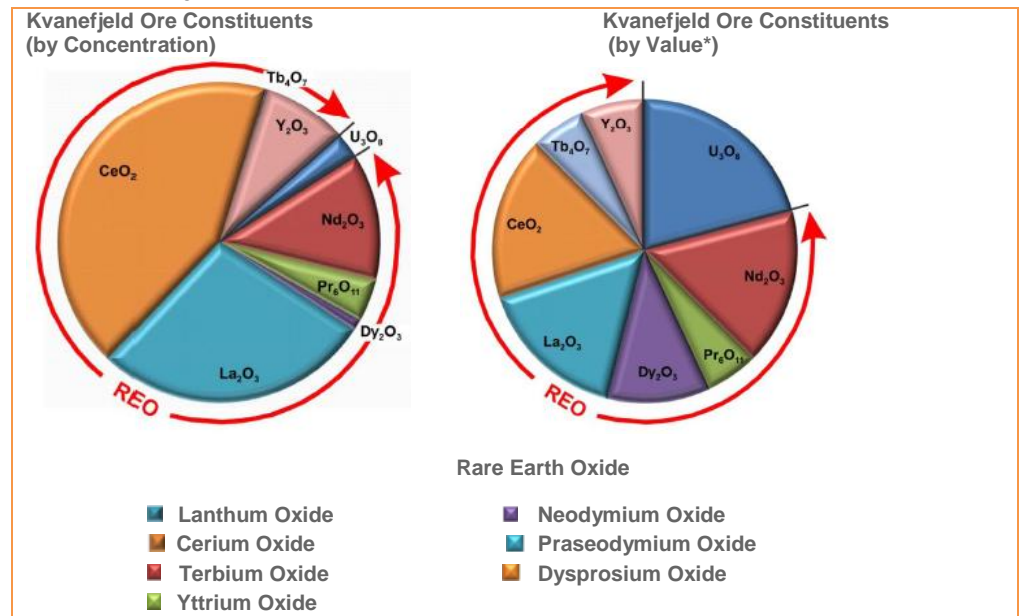
Exhibit 3: Inferred Resources of Sodium Fluoride (NaF)

At NaF% cutoff grades	Tons (million)	NaF%	Resource category
0.10	363	0.85	Inferred
0.50	191	1.36	Inferred
1.00	116	1.77	Inferred

Source: Company

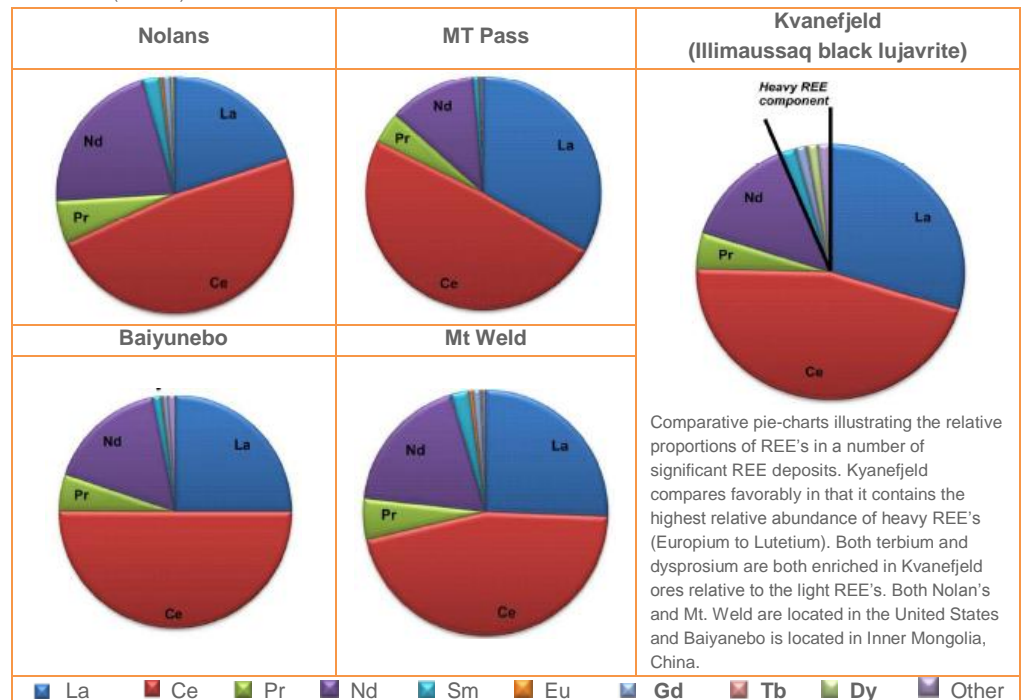
1- Sodium fluoride remains under sampled in comparison to REOs, zinc and uranium and therefore the resource category is only inferred. The NaF resource is contained within the same geological model as that used to calculate the TREO, U3O8 and Zn resources.

Exhibit 4: Kvanefjeld – Multi-Element Ore



Source: Company

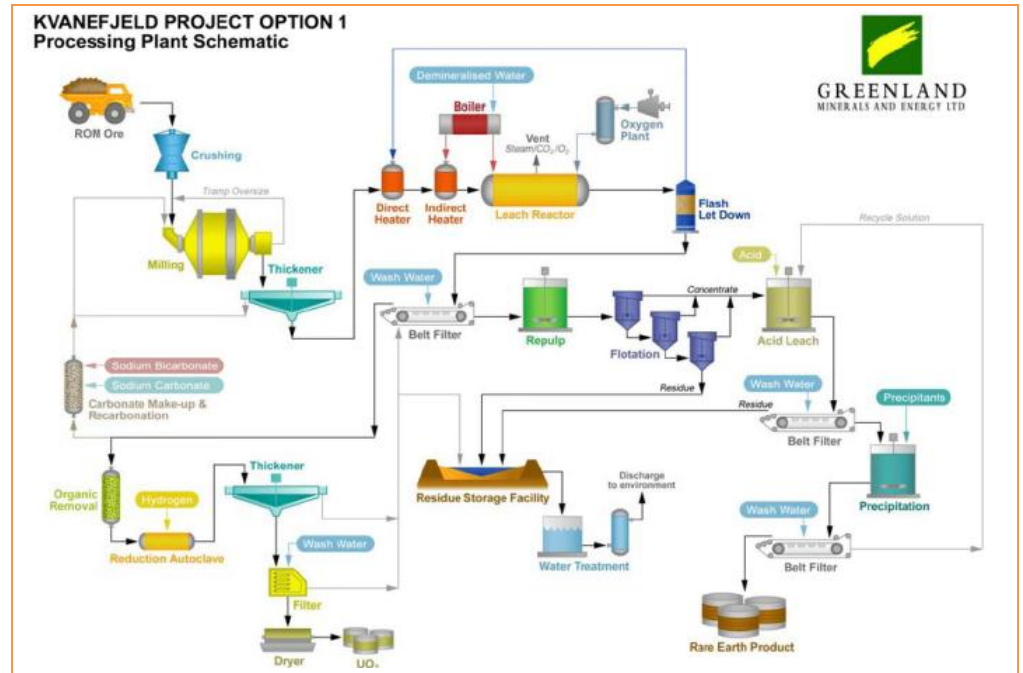
* Values based on grades in the geological model and August '08 resource estimate statement and metal prices for 1Q FY2009 (IMCOA)



Source: Company

Kvanefjeld Project is in all probability the largest undeveloped multi-element occurrences of uranium, and rare earths in the world.

Exhibit 5: Process Flow Sheet – base case scenario:



Source: Company

1 - alkaline pressure leach uranium extraction; 2 - concentrate REE minerals; 3 - extract REEs with dilute HCl wash

Greenland released an interim report on the Kvanefjeld pre-feasibility study in February 2010. The report indicated that Kvanefjeld could be developed as an economically robust, large-scale mining operation to produce a rare earth concentrate and uranium oxide.

The findings of the pre-feasibility studies conducted to date evaluate a multi-element mining operation based on the process flow sheet that has been developed by AMEC Minproc and the Australian Nuclear Science and Technology Organization (ANSTO) and draws on extensive studies conducted by the Danish Atomic Energy Commission (Risø).

Key outcomes of the study -

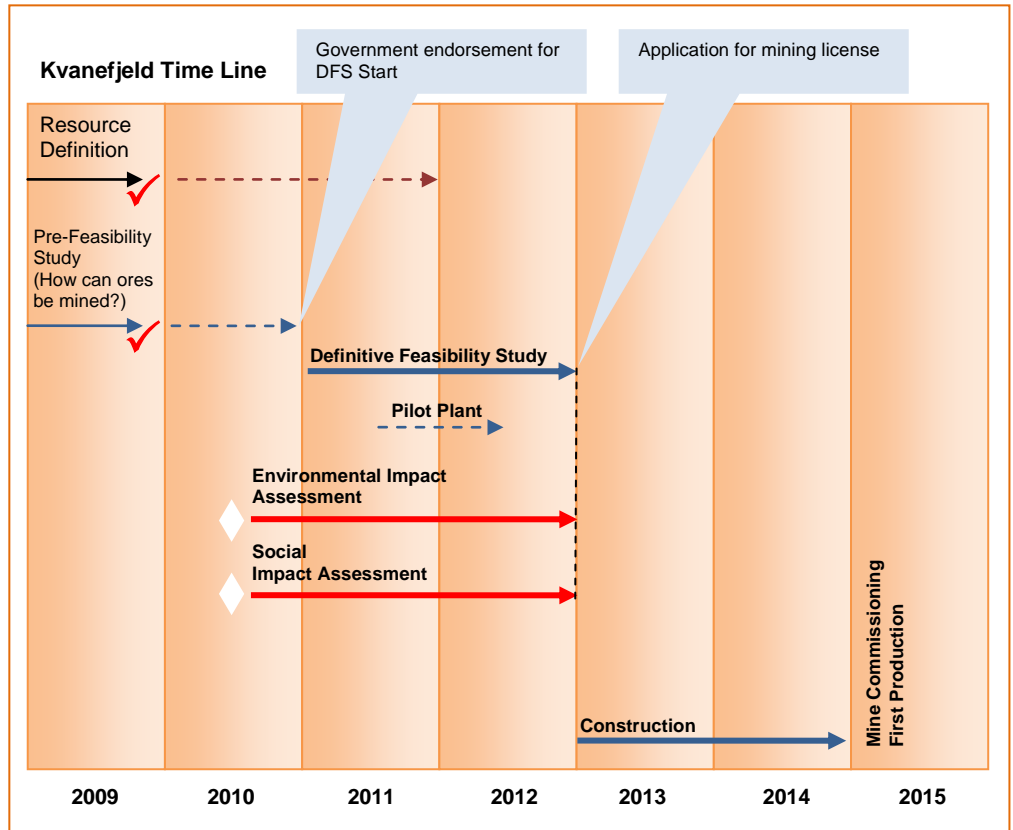
- Nominal forecast annual production is equivalent to 43,729 tons of Rare Earth Oxide (REO) and 3,895 tons of U₃O₈ with a mine life of >23 years. At a processing rate of 10.8 Mt pa., Kvanefjeld could potentially supply about 20% of the global REE demand at this level of production.
- Unit cost estimates are \$29.61 USD/lb U₃O₈ and \$3.36 USD/kg REO (as a mixed rare earth carbonate).
- Financial evaluations outlined in the summary report indicate that:
 - (1) Once in production the project is could repay the capital costs in just over 3 years
 - (2) Over the mine lifetime, the revenues from the sale of uranium oxide would cover the entire production cost such that the cost of producing a mixed rare earth carbonate is negative

Greenland is further investigating areas that could see significant enhancements to the base-case flow sheet. In March The Company also received a new exploration license for exploration over the Northern Ilimaussaq Complex, including the Kvanefjeld project, under Greenland’s new Mineral Resources Act implemented at the start of 2010 and endorsed by Greenland’s parliament.

This license is valid for five years, providing enough time to conduct definitive feasibility studies and to assess the environmental and social impact of exploration. The Company

could then apply for an exploitation (mining) license which would have the same conditions and would cover the same area as the previously held license.

Exhibit 6: Kvanefjeld Time Line



Source: Company

Recent Success at Kvanefjeld

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. With Kvanefjeld already recognized as the world’s largest REE resource as defined by international reporting standards, 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.

2010 Field Program

The current field program underway in Greenland involves diamond core drilling for exploration and resource definition. At Kvanefjeld, 4,000m 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. When converted to indicated, these resources can then be scheduled into mine plans serving to increase the current life-of-mine and improve the economics of the project.

Exhibit 7: View over Tunugdliarfik fjord toward Zone 2

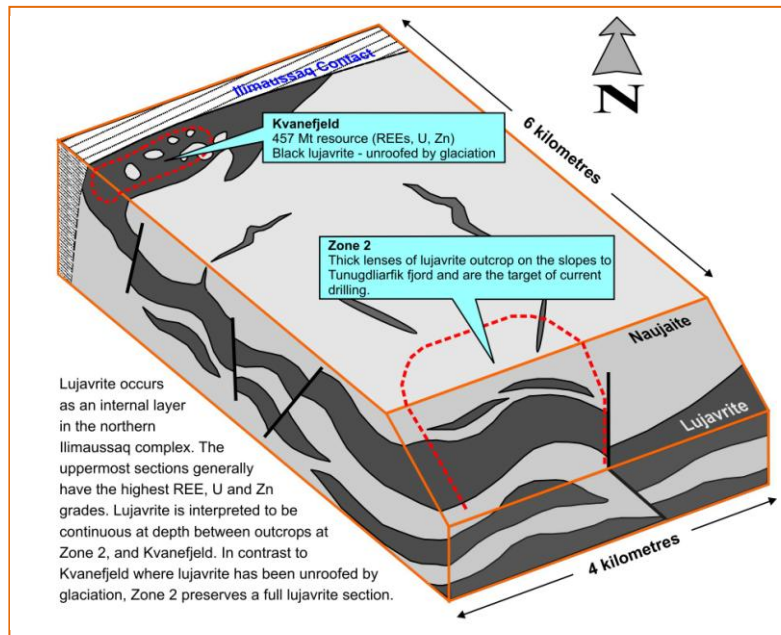


Source: Company

Exploration drilling at Zone 2, located 6 km south of Kvanefjeld, is now under way 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 naujaite cap, but thick layers of lujavrite outcrop in the steep slopes that run between the ridge crest at 700m elevation, and Tunugdliarfik fjord as shown in Exhibit 7.

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 Exhibit 8). The Company's strategy is to initially focus resource definition programs on the near-surface occurrences of lujavrite. Typically, the highest multi-element grades occur at the top of lujavrite sections, and with the lujavrites at Zone 2 yet to be unroofed (the full lujavrite section is preserved), good grades are expected.

Exhibit 8: Block Diagram across the Northern Ilimaussaq Complex illustrating the Relationship between Kvanefjeld and Zone 2

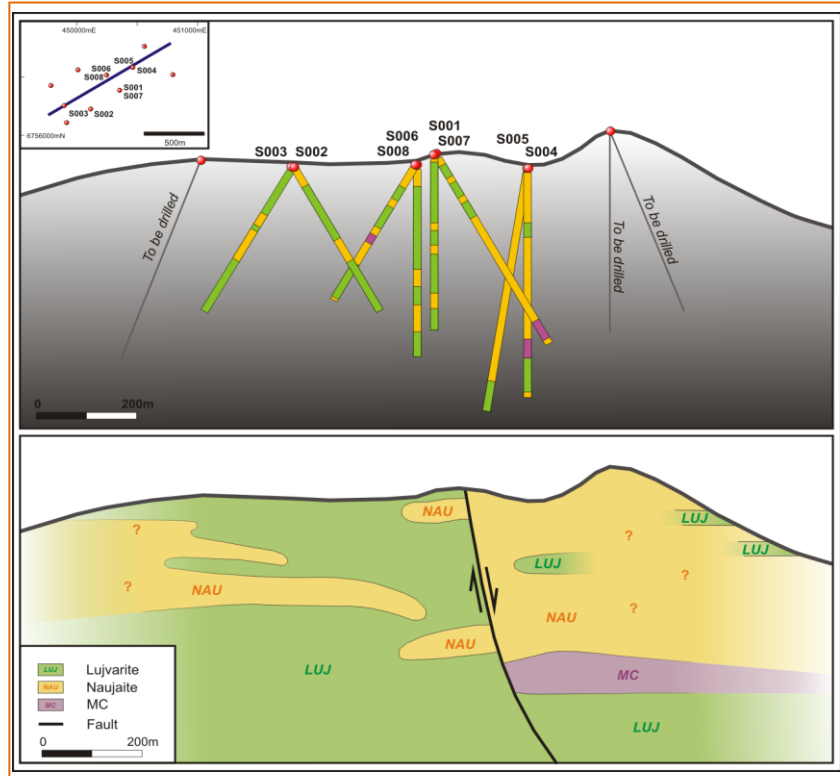


Source: Company

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 (Exhibit 9). 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 (Exhibit 9). 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.

Exhibit 9: Block Diagram across the Northern Ilimaussaq Complex illustrating the Relationship between Kvanefjeld and Zone 2



Source: Company

Greenland – Future Hub for REE’s

Greenland is a highly prospective yet underexplored country which is politically stable; maintains a long lived democracy and tax system; is open to foreign investment; and is mining friendly. The Greenland Home Rule Government recognizes that the responsible development of mineral resources is critical to the future economy of Greenland.

About 80% of Greenland is covered by an icesheet, with the exposed area forming a fringe around the coast. These coastal areas are highly exposed to numerous mineral belts which are good prospective for gold; nickel; platinum group elements (PGE); copper; lead; zinc; molybdenum; diamonds and specialty metals, including rare earth elements (REE).

A number of mining companies have started operation in Greenland. Rio Tinto Exploration in alliance with Nuna Minerals, a partly state owned entity, is actively exploring Greenland for a variety of mineral deposit types.

The Greenland Government is doing its best to promote the country as an ideal mining destination. Its geological body, the Greenland Geological Survey (GEUS), has been producing high quality maps; large geochemical databases; mineral occurrence databases; and airborne geophysical surveys for years. Additionally, the Bureau of Minerals and Petroleum (BMP) is promoting the country as an attractive destination for mineral explorers through international trade shows such as the PDAC (Toronto) and the Cordilleran RoundUp (Vancouver).

The work of exploration in the country is usually done in the summer and shoulder seasons, falling between May and October, as carried out in other high latitude areas such as Canada and Alaska. Also, a number of exploration and mining service providers in the country are based out of Greenland and provide drill crews and well-trained personnel.

Industry Overview

Rare Earth Metals

Rare Earth Elements (REEs) are a group of specialty metals with unique physical, chemical and light-emitting properties that find use in technological applications. Rare earths are normally expressed in terms of rare earth oxides (REO) and are classified into three groups, namely, Light, Medium and Heavy. The light and medium rare earths are referred to as the ‘cerics’ and the heavy rare earths as the ‘yttrics’. They form inputs for items used to manufacture hybrid vehicles, mobile telephones, computers, televisions and energy efficient lights. Furthermore, rare earth elements are considered strategic materials as they are generally present in minute concentrations and cannot be recycled.

The REE group includes 15 lanthanide elements: lanthanum, cerium, praseodymium, promethium (does not occur naturally), neodymium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, ytterbium, and lutetium. The elements yttrium and scandium are also included as they have similar chemical properties, bringing the total to 17 REE’s.

Exhibit 10: Rare-Earth’s Resources

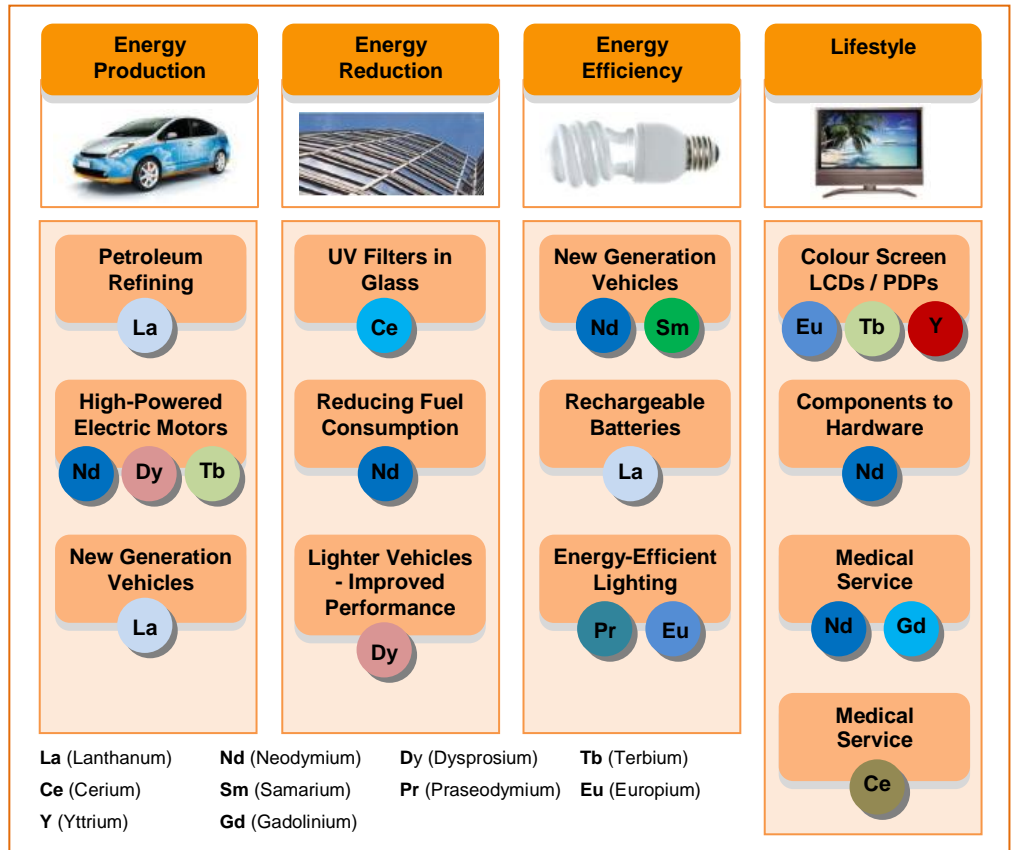
Periodic Table of the Elements

1	2											13	14	15	16	17	18																			
1	H											10	Ne																							
2	Li	3	Be									4	B	5	C	6	N	7	O	8	F	9	Ne													
3	Na	4	Mg									11	Al	12	Si	13	P	14	S	15	Cl	16	Ar													
4	K	19	Ca	20	Sc	21	Ti	22	V	23	Cr	24	Mn	25	Fe	26	Co	27	Ni	28	Cu	29	Zn	30	31	Ga	32	Ge	33	As	34	Se	35	Br	36	Kr
5	Rb	37	Sr	38	Y	39	Zr	40	Nb	41	Mo	42	Tc	43	Ru	44	Rh	45	Pd	46	Ag	47	Cd	48	49	In	50	Sn	51	Sb	52	Te	53	I	54	Xe
6	Cs	55	Ba	56	Hf	57	Ta	58	W	59	Re	60	Os	61	Ir	62	Pt	63	Au	64	Hg	65	Tl	66	Pb	67	Bi	68	Po	69	At	70	Rn			
7	Fr	87	Ra	88	Rf	89	Db	90	Sg	91	Bh	92	Hs	93	Mt	94	Rg	95	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118		
LANTHANIDE SERIES		57	58	59	60	61	62	63	64	65	66	67	68	69	70	71																				
ACTINIDE SERIES		89	90	91	92	93	94	95	96	97	98	99	100	101	102																					

Source: Company

The diverse nuclear; metallurgical; chemical; catalytic; electrical; magnetic; and optical properties of REE’s have led to an ever increasing variety of applications. Their use ranges from mundane technology (lighter flints, glass polishing) to high-tech applications (phosphors, lasers, magnets, batteries, magnetic refrigeration) to futuristic products (high temperature superconductivity, and the safe storage and transport of hydrogen for a post-hydrocarbon economy). Rare earth metals have a number of uses ranging from use as a catalyst in crude oil production to use in iPods and laptops. They are particularly vital in new green technologies such as super magnets, energy efficient lighting and rechargeable batteries.

Exhibit 11: End-Use Application of REE

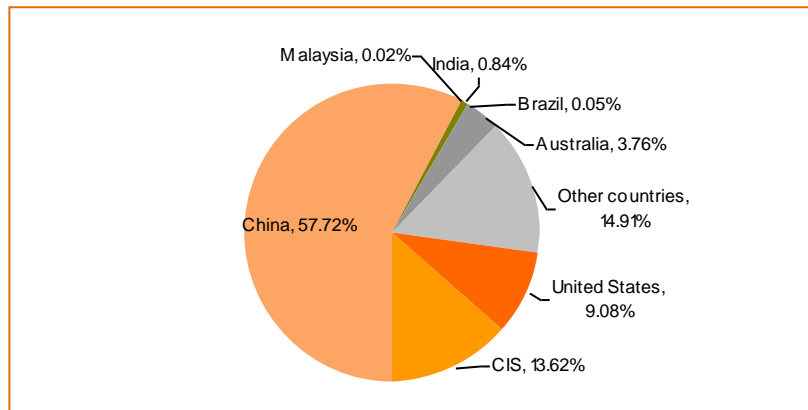


Source: Arafura Company Presentation March 2010

The global rare earth's market is estimated to produce 124,000t REO in 2008, valued at approximately US\$ 1.25 billion. The rare earth metal global market growth has been in the range of 8-11% per annum, with the exception of the correction in 2001/2002 (technology crash). Moreover, the 2008 global financial crisis seems to have reduced consumption in 2008 to 124,000t REO from the mid-2008 estimates of 135,000-145,00t REO.

China tops the list of countries having the largest proportion of REE reserves at about 27 million tons (equivalent to around 30% of the world's reserves) while the USA accounts for another 13 million and Australia 5 million and India 2.3 million tons, respectively.

Exhibit 12: Rare Earth Resource Base by Country



Source: Company

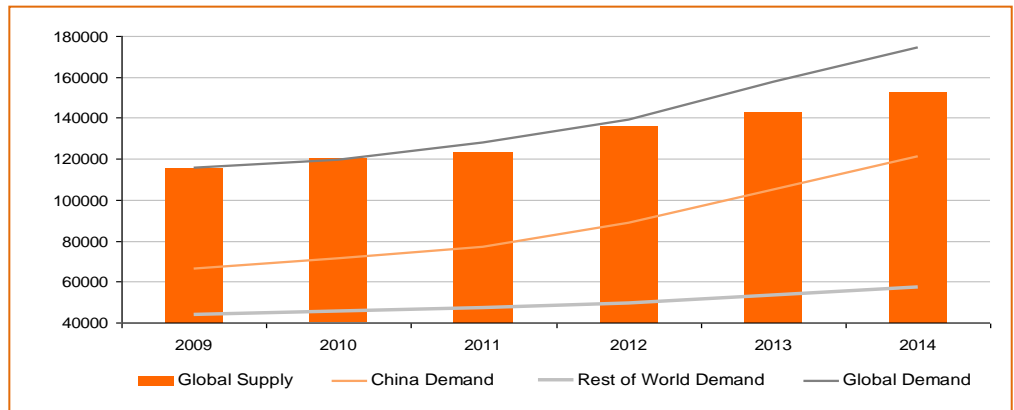
China is responsible for more than 97% of rare earth metal production, mainly in Inner Mongolia. In 2007, 96.8% percent of world rare-earth export came from China. However, about 42% of worldwide reserves of rare earth ores still lie outside China. China has been exporting less in the recent years to meet domestic demand. Some time in 2011 to 2012, Chinese domestic demand is expected to surpass Chinese domestic production.

Demand and Supply

World demand for rare earth metals is currently over 110,000 tons/year and expected to grow about 71% to 188,000 tons by 2012, as per US Geological Survey. Moreover, the world demand is expected to exceed supply by some 40,000 tons/year over the next several years.

According to the US Geological Survey, the current world reserves of rare earths are estimated to be about 88 million tons REO which, based on their continued availability and typical metallurgical recoveries, should theoretically be sufficient for the next 200 years.

Exhibit 13: Rare Earths – Supply & Demand to 2010



Source: Arafura Company Presentation

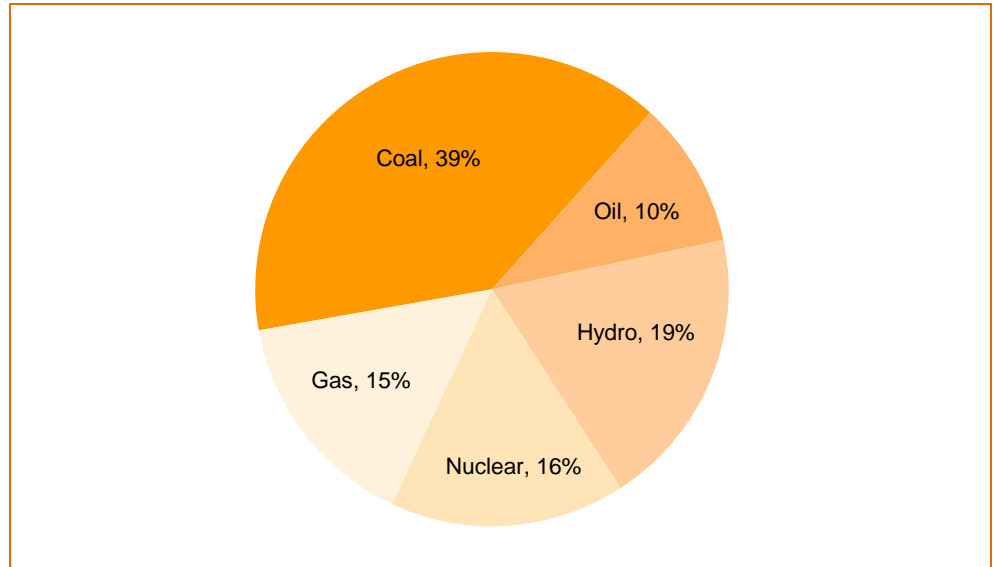
The rare earth metal demand comes mainly from production of high technology electronics such as cell phones, hybrid cars, batteries, and even winds turbines. There is already increased concern over expected shortage of a number of rare earth metals in the coming years. Electric motor manufacturers are worried about the shortage of neodymium, the key component of an alloy used to make the high-power, lightweight magnets used in electric motors of hybrid cars. Concerns have also been raised over the availability of another rare earth metal, lanthanum, which is a major ingredient of hybrid car batteries. The US is importing about 87% of lanthanide from China, after it stopped production in its own mines, out of consideration for resource conservation.

The ongoing surge in demand for high-technology goods is not only increasing demand for the rare metal elements but is also raising questions over the availability of these elements, thereby opening up a big market for a number of companies to cater to the increased demand.

Uranium Industry Overview

Uranium, most widely known for its unique radioactive properties, is used commercially as a fuel for nuclear reactors. Overall, interest in nuclear power has increased significantly over the years as the global demand grows for cheap, reliable electricity along with the need to reduce air pollution. There are some 439 nuclear power reactors operating in 31 countries that generate 16% of the world's electricity. Additionally, 284 nuclear reactors are operating in 56 countries for scientific research and the production of medical and industrial isotopes. A further 220 reactors are being used to power ships and submarines.

Exhibit 14: World Electricity Generation by Different Fuel Type



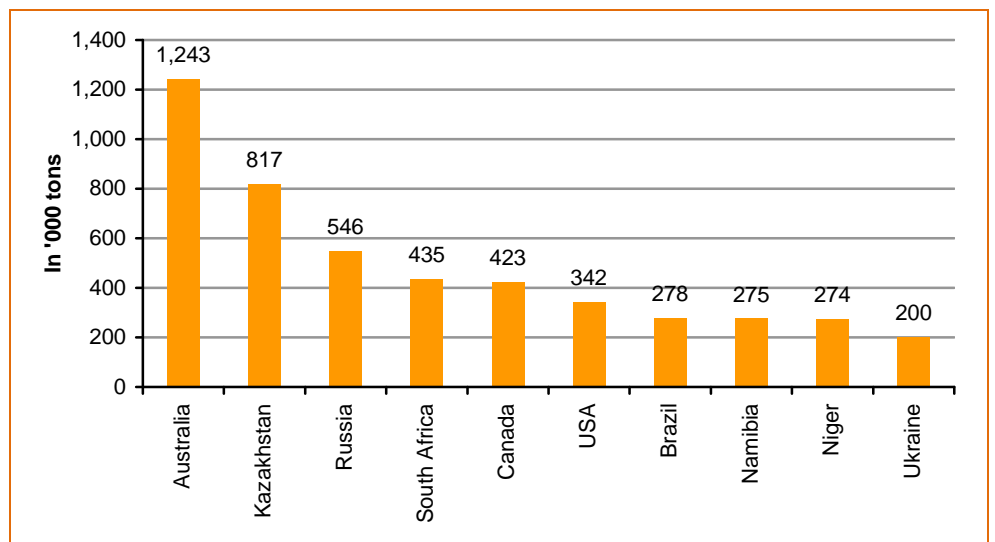
Source: JNR Resources

According to industry sources, currently about 439 operating reactors in the world require 78,500 tons of uranium oxide concentrate each year. Moreover, about 55 new reactors are under construction and 93 have been proposed—China (35); India (16); Russia (15); Japan (13); South Korea (8); and US (7), accounting for 74% of the proposed new reactors. As of June 30, 2010, 438 nuclear power plant units with an installed electric net capacity of about 372 GW are in operation in 30 countries.

According to Industry sources, about 5.5 million tons of naturally occurring uranium is known to be recoverable. Mines in 2008 supplied some 51,600 tons of uranium oxide concentrate (U3O8), containing 43,760 tons or about 68% of utilities' annual requirements. The balance was made up from secondary sources, including stockpiled uranium held by utilities which are now largely depleted.

Australia leads with more than one million tons (about 24% of the world's known supply), followed by Kazakhstan, with over 800,000 tons or 17% of known supplies. Canada's supplies are slightly less than 10% of the world's total, while the US and South Africa have about 7% each.

Exhibit 15: Top Ten Countries with Recoverable Uranium Resources (2007)



Source: OECD NEA & IAEA, Uranium 2007: Resources, Production and Demand

Australia, Kazakhstan and Canada account for more than half of the world's uranium mining production. In December 2009, Kazakhstan had overtaken Australia to become the largest uranium producer in the world. Though Australia has the largest supply, access had been

constrained by a 1982 law limiting uranium mining in the country. The law was lifted only two years ago.

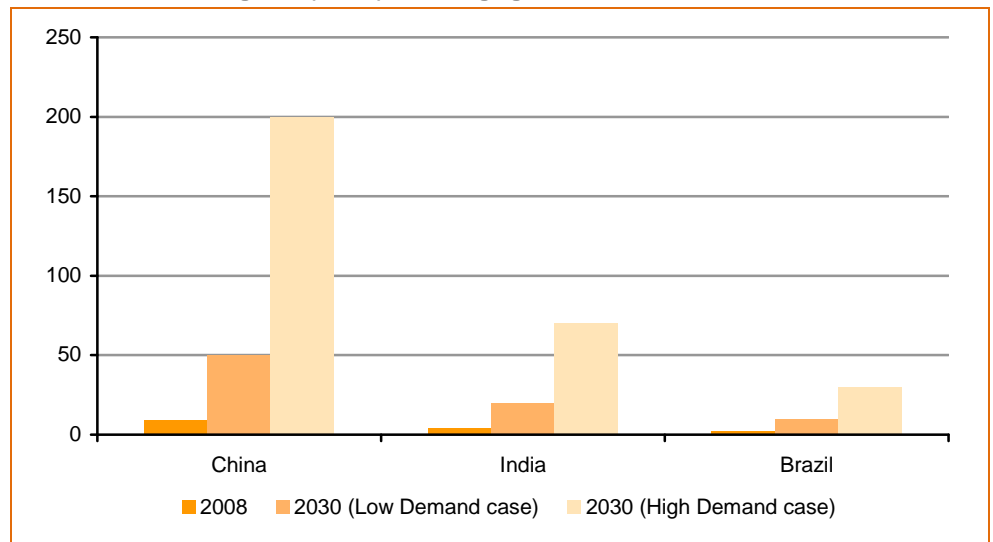
Growth Drivers

Rapidly growing demand for electricity; the uncertainty of natural gas supply and price; soaring prices for oil; concern for air pollution; and the immense challenge of lowering greenhouse emissions, are all driving global demand for nuclear power.

Demand driven by developing countries

According to the World Nuclear Association, the aggressive nuclear programs of emerging countries such as China and India are significantly driving demand for uranium. The total global capacity of nuclear energy was 367GW in 2008 and the same is expected to reach about 559GW, in a low demand scenario, and 1087GW, in a high demand scenario, by 2030.

Exhibit 16: Nuclear Programs (in GW) for Emerging Countries



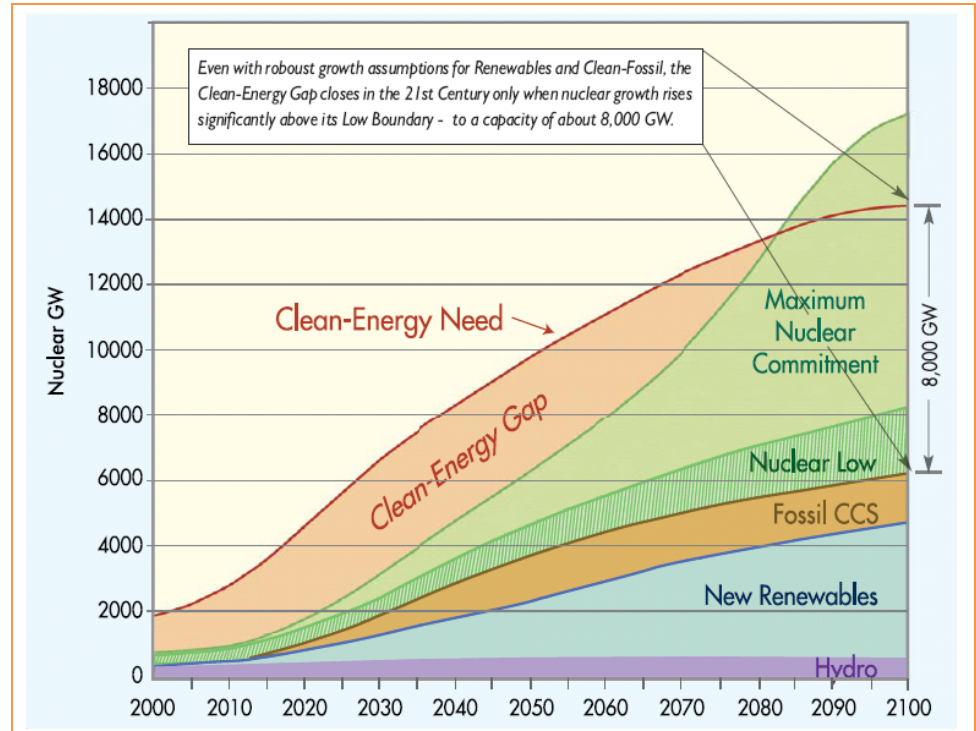
Source: World Nuclear Association

The nuclear capacity in China is expected to increase to 50GW and 200GW based on low demand and high demand scenarios, respectively, by 2030 as compared to capacity of 9GW in 2008. There are about 11 nuclear power reactors in commercial operations in China with 6 under construction and a number of them about to start construction.

Demand for Clean Energy

A number of global protocols and regulations pointing towards use of efficient and pollution-free energy modes are driving demand for clean energy which is expected to grow significantly in coming years. The ongoing global shift to lower emission energy sources is likely to have a significant impact on demand for nuclear energy going forward, both economically and environmentally. Though it is accepted globally that a reduction in global emissions of greenhouse gas should start as soon as possible, there isn't any legally binding agreement signed as of yet for the same. It is estimated that if the total energy consumption doubles by 2050, 85% of energy has to be supplied by clean technologies in order to attain a 70% global greenhouse gas (GHG) cut from 2000 levels.

Exhibit 17: Global Clean Energy Demand & Supply



Source: World Nuclear Association

SWOT Analysis of Greenland Minerals and Energy Ltd

Strengths

- Greenland – an emerging REE hub:** Greenland is a highly prospective, but underexplored, politically stable region which is now opening its doors to foreign investors as it has high prospects for mineral exploration due to its varied geology. It is ideally located between the North American and European markets and has well exposed coastal areas providing many mineral belts. The main source of power in Greenland is hydroelectricity which can be put to great use with the expansion and growth of large mining operations. The Company’s presence in the country’s Kvanefjeld project, a highly enriched multi-element ore deposit, opens up opportunities for future expansion
- Transfer of mineral rights from Denmark to Greenland:** The passing of the Minerals Resources Act (MRA) in January 2010 gave Greenland’s Bureau of Minerals and Petroleum the right to approve projects and issue licenses for mineral exploration. Previously, it required the approval of the joint committees of the Danish and Greenland governments. This move would help companies such as Greenland to penetrate the global REE market mainly dominated by China
- Kvanefjeld Project - a world class project:** Kvanefjeld deposit, according to the evaluative study from the Danish Atomic Energy Agency and the Company, has high concentrations of REE elements and is the 6th largest uranium deposit in the world. The scale, continuity and near-surface location of the deposit, including its potential to provide access to hydroelectric power, makes it an excellent operations base in Greenland
- Working with government to develop this project at international standards:** The Company is working closely with the Greenland government. It has recently been granted a new exploration license with approval of parliament, to advance Kvanefjeld for a further 5 years, under Greenland’s New Mining Act. The company anticipates applying for an exploitation license within this period. The Company has also

contracted Greenland Mining Services (GMS), a Greenland-based service provider, to provide technical expertise on the current exploration and development programs of Kvanefejld. The Greenland Geological Survey (GEUS) is also actively involved in the project, producing high quality maps, large geochemical databases, mineral occurrence databases, and airborne geophysical surveys

- **Strong financial estimates and pre-feasibility study results:** Though the Company is in very early stages of exploration, the financial estimates based on production expectations show a high level of promise, with a 24% IRR and a payback period of just over 5 years, inclusive of 2 years of construction
- **Sound technical expertise on the management team:** The Company has a strong exploration team. The depth, competence and global experience of the Company's management team are expected to be the key factors behind the success of the project

Weaknesses

- **Timely availability of funds:** Development of the Company's properties depends on its ability to raise the additional funds required within a timeframe adequate to counter uncertain market conditions or cost rises
- **Project at the exploration stage:** The Company's projects are in very early stages of exploration

Opportunities

- **Tightening of China's export quotas to benefit the Company:** China mines over 95% of the world's rare earth minerals which makes it the world's largest exporter of REE's. In a recent development, the Chinese government is planning to ban the foreign shipment of REMs, which will reduce the supply available for global consumers thereby tending to create upward pressure on demand as well as on the prices of these elements. This development by China has opened up the doors for REE rich countries, such as Greenland, and Mining corporations like Greenland Minerals and Energy Ltd to gain a foothold in the global Market of REEs
- **Amendment to the Standard Terms for Exploration Licenses:** Following the recent discussions between the Greenland government and Company representatives, amendments have been made to the Standard Terms for Exploration Licenses that allow upon grant of application, the undertaking of feasibility studies concerning the health and safety issues in mining projects which involve radioactive and REE minerals, wherein, the main goal of the project is the other minerals and not the radioactive minerals. A recent press release by the government dated September 12, 2010 states that its policy of zero tolerance (on exploration of radioactive elements) continues and that the grant of the above license does not give right to explore or exploit radioactive elements. The Company has applied and is the first company to be approved under these new regulations.
- **Additional nearby sites:** Fields K2 to K8, located close to the Kvanefejld deposit, are extremely rich in a variety of minerals and further opens up prospects of growth for the Company's multi-element exploration targets as well as wider opportunities
- **Growing REE market amid boom in green technologies:** REEs are fast emerging as strategically important commodities to the global manufacturing base and uranium is a crucial base for clean and green energy supplies for the future. The market analysis indicates that demand for rare earths and uranium is set to grow strongly over the next 20 years giving significant opportunities to the Company

- The Kvanefejld project will enable the Company, to train and employ the local community, resulting in infrastructural development and improvements in the nation's economy

Threats

- **Threat of oversupply of REE:** Since there are a number of global producers producing light REE, there is always a threat of oversupply which in turn would affect the prices of these metals
- **Heavy level of investment:** The project requires a high level of investment and any delays in execution could impact returns from the project
- **Exploration risk:** Exploration and mining involve a high degree of risk as few exploration properties end up going into production. Hence, there is no guarantee that the expenses incurred by the Company in exploring its properties would lead to the discovery of a commercial quantity of ore
- **Global competition:** China has more than 40% of the world's resources. It supplies more than 92% of the world's needs and consumes more than 60% of global output. The Company is going to face strong global competition from China and other REE producers in the world
- **Environmental issues and management of biodiversity:** Environmental issues and management of biodiversity, both terrestrial and aquatic, poses a challenge and, therefore, the future development and success of the project will depend on community support
- **Effects of atmospheric emissions:** Emissions such as radon gas, dust, combustion products, radiations and other gaseous products can be carried far by wind currents with inherent effects on the environment and on human health, thereby posing a challenge for the Company to comply with local as well as global environmental regulations
- **Finding economic concentrations of REE:** The rare earth elements are difficult to separate from one another, and from contaminants, and thus are difficult to purify and to use. Hence, finding economic concentrations of the REEs to support further activity is difficult

Recent Fund Raising Activities

On July 8th, 2010 Greenland announced that it had secured A\$21 million to finance ongoing feasibility and development programs on the Kvanefejld multi-element project (rare earth elements, uranium, and zinc). The funds have been secured through a A\$6 million equity raising and the establishment of a A\$15 million equity facility. The A\$6 million was raised via the issue of 17,647,060 shares at \$0.34 to sophisticated and institutional investors, and takes the Company's cash reserves to more than \$9 million, which is more than sufficient to cover this year's work programs. In addition, an equity facility has been established with the U.S.-based YA Global Investments (Yorkville) that provides Greenland with the option to draw down on a \$15 million facility at any time over the next five years. The facility provides the Company with a secure and flexible funding option to accelerate work programs in the future.

Recent Results

Exhibit 18: Consolidated Profit and Loss Statement for the Half-year ended 30 June 2010

(In '000 \$)			
Half-Year ending 30 June	2010	2009	YoY%
Revenue	278	524	-46.9%
Other Income	360	88	309.1%
Expenditure			
Directors benefits	464	1,052	-55.9%
Employee benefits	295	40	637.5%
Consultant expense	173	91	90.1%
Legal fees	359	443	-19.0%
Occupancy expenses	179	152	17.8%
Payroll tax	1,110	0	
Travel expenses	352	231	52.4%
other expenses	981	910	7.8%
Loss before tax	-3,275	-2,307	42.0%
Income tax expense	0	0	
Loss for the period	-3,275	-2,307	42.0%
Basic loss per share- cents per share	1.3	1.1	18.2%

Source: Company

During the six months ended June 30 2010, Revenues fell 46.9% to \$278,000, compared to \$524,000 recorded in the same period last year. However, other income surged 309% to \$360,000 from \$88,000 in the corresponding period last year. On the expenditure side, employee benefits jumped 637.5% to \$295,000 from \$40,000 in the six months period to June 30, 2009. Loss before tax widened to \$3,275,000 from \$2,307,000 recorded during the six months ended June 30, 2009. Given that it is an exploration stage mining company, Greenland does not currently generate any income from operations and must issue equity for funding its operations. The revenues reported are interest revenues. The revenues for FY2009 fell 4.1% to \$1.28 million from \$1.33 million recorded in the previous year and the loss after tax was also the same due to absence of income tax expenses.

Exhibit 19: Consolidated Profit and Loss Statement

(In '000 \$)				
Year ending 30 June	2007	2008	2009	YoY%
Revenue	228	1,334	1,279	-4.1%
Expenditure				
Directors' fees and salary expense	133	374	602	61.0%
Share based payments – directors	-	31,303	981	-96.9%
Share based payments – other	-	170,304	-	-100.0%
Occupancy expenses	46	67	271	304.5%
Other expenses	249	2,061	3,440	66.9%
Profit/Loss Before Tax	(200)	(202,775)	(4,015)	N.M.
Income tax expense	-	-	-	
Profit/Loss After Tax	(200)	(202,775)	(4,015)	N.M.
Basic and Diluted Net Profit/Loss per share	(0.62)	(0.24)	0.03	N.M.

Source: Company

Given that it is an exploration stage mining company, Greenland does not currently generate any income from operations and must issue equity for funding its operations. The

revenues reported are interest revenues. The revenues for FY2009 fell 4.1% to \$1.28 million from \$1.33 million recorded in the previous year.

The expenses related to directors' fees and salary of the Company increased 61% to \$ 602,000 from \$ 374,000 recorded during the previous year.

Loss before taxes narrowed down 98.0% to \$4.015 million for the year ended 31 August 2009 compared to \$202.775 million in FY2008 and the loss after tax was also the same due to absence of income tax expenses.

Valuation & Investment View

We have valued the vast multi-element resources of the Company's license area 2010/02 over the northern Ilimaussaq Intrusive Complex that the Company is exploring on the Kvanefjeld project. The interim report on the Kvanefjeld pre-feasibility study released in early February contains the following observations:

- Processing rate of 10.8 Mtpa
- Forecast nominal production of 43,729 t of REO, and 3,895 t U3O8pa
- Life of mine throughput: 239 Mt @ 1.01%TREO and 314ppm U3O8
- 23 year mine life

We have valued the Company using the future free cash flow projections of the project and discounting them using the weighted average cost of capital to arrive at a present value and evaluate the potential for investment.

Following table shows the production of rare earth oxides and uranium expected from the property. We assume production starting in 2016. Based on the output, the total yearly revenues would be around \$1,169.4 million, with a mine life of about 22.13 years.

Exhibit 20: Production

Tons	tn	
	U3O8	REO
10,800,000	3,895	43,729
Yearly		
Price Lb or Kg \$	\$70.00	\$16
Revenue	\$600,920,600	\$699,664,000
Total Yearly Revenue		\$1,300,584,600
Total Estimated Mineralized tons		239 Mn
Total Years of Production		22.13 years

Source: Company, RB Milestone Research

The Company plans to invest around \$ 2.31 billion in infrastructure at the Kvanefjeld project area. We have apportioned the capital costs of \$ 2.31 billion over the period 2010-2015. We assume operating costs of \$29.6 per lb for Uranium and \$3.36 per kg for REO.

Exhibit 21: Infrastructure and related costs

	U3O8	REO		
Cost Lb or Kg \$	\$29.60	\$3.36	Yearly Cost	\$401,033,008
			Yearly Revenue	\$1,300,584,600
Infrastructure			Net CASHFLOW	\$899,551,592
Total Investment	\$2,310,000,000			

Source: Company, RB Milestone Research

Based on the above assumptions, we have arrived at the following cash flows streams. We use a discount rate of 14.8% to arrive at the fair value.

Exhibit 22: Cash flows until the Start of Production

Fiscal Year	2010	2011	2012	2013	2014	2015
(Mn)						
Investments	-50.0	-100.0	-200.0	-350.0	-700.0	-910.0
Cash In Flows	0.0	0.0	0.0	0.0	0.0	0.0
Tax Rate						
Post Tax Cash Flows	-50.0	-100.0	-200.0	-350.0	-700.0	-910.0
No. of Year	1	2	3	4	5	6
Discount Rate	14.8%					
Discounted Cash Flows	-43.5	-75.8	-132.0	-201.2	-350.4	-396.7

Source: Company, RB Milestone Research

Exhibit 23: Cash flows after the start of production

Fiscal Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Investments	0	0	0	0	0	0	0	0	0	0	0
Cash In Flows	899.6	899.6	899.6	899.6	899.6	899.6	899.6	899.6	899.6	899.6	899.6
Tax Rate	29%	29%	29%	29%	29%	29%	29%	29%	29%	29%	29%
Post Tax Cash Flows	638.7	638.7	638.7	638.7	638.7	638.7	638.7	638.7	638.7	638.7	638.7
No. of Year	7	8	9	10	11	12	13	14	15	16	17
Discount Rate	14.8%	14.8%	14.8%	14.8%	14.8%	14.8%	14.8%	14.8%	14.8%	14.8%	14.8%
Discounted Cash Flows	242.4	211.1	183.8	160.0	139.4	121.4	105.7	92.0	80.1	69.8	60.7

Fiscal Year	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Year	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22
Investments	0	0	0	0	0	0	0	0	0	0	0
Cash In Flows	899.6	899.6	899.6	899.6	899.6	899.6	899.6	899.6	899.6	899.6	899.6
Tax Rate	29%	29%	29%	29%	29%	29%	29%	29%	29%	29%	29%
Post Tax Cash Flows	638.7	638.7	638.7	638.7	638.7	638.7	638.7	638.7	638.7	638.7	638.7
No. of Year	18	19	20	21	22	23	24	25	26	27	28
Discount Rate	14.8%	14.8%	14.8%	14.8%	14.8%	14.8%	14.8%	14.8%	14.8%	14.8%	14.8%
Discounted Cash Flows	52.9	46.1	40.1	34.9	30.4	26.5	23.1	20.1	17.5	15.2	13.3

Source: Company, RB Milestone Research

Exhibit 24: Calculation of WACC

Cost of Equity	
Risk Free Rate	5.0%
Stock Premium	10.9%
Beta	0.90
Expected Return	14.8%
Cost of Debt	
Average Borrowing rate (before tax)	0.0%
Tax Rate	29.0%
Cost of Debt	0.0%
Capital Structure	
Book value of equity (As of June, 2010)	43,622
Book value of debt (As of June, 2010)	0
Total Capital (excl deferred tax liability)	43,622
WACC	14.8%

Source: RB Milestone Research

Exhibit 25: Calculation by Discounted Cash Flow Method

	\$
PV of Cash Flow	586,664,720
Add Cash	3,623,000
Less debt	0
Valuation for the properties	590,287,720
Shares Issued	249,905,308
Value per share (in \$)	2.36
Current Market price (\$)	0.565
Upside potential	318.1%

Source: RB Milestone Research

We value the Company based on PV of cash flow which is expected to be generated from its Kvanefjeld project. Assuming discounting factor of 14.8% and a production span of 22 years, we have arrived at a target price of \$2.36, which provides an upside of 318% to the current market price.

Though the project offers substantial returns, there is high level of uncertainty associated with its production and anticipated cash flows. In light of this, the investment is of the nature of a high risk investment.

Key Risk Factors

The Company faces a high degree of risk and uncertainties. The major risk factors are outlined below:

Exploration risk: The business of exploration and development of minerals involves a high degree of risk. There is no certainty that the expenses incurred by the Company for its exploration activity would result in discovery of substantial quantities of minerals and other metals. Other risks involved in the conduct of exploration programs includes unexpected formations; fires; power failures; labor problems; flooding; cave-ins; landslides; and outdated machinery or equipment or inefficient labor.

Metal prices: Another important risk factor which is faced by the mining industry is metal prices. Metal prices fluctuate frequently thereby affecting the marketability of minerals discovered. These factors include international, economic and political trends; currency exchange fluctuations; interest rates; global or regional consumption patterns; and worldwide production levels. The factors that influence the value of minerals are beyond the control of the Company and therefore the impact of these factors cannot be predicted accurately.

Environment risks: The Company's operations are subject to several environmental risks. Environmental risks include prohibitions of spills and of the release or emission of harmful substances resulting in environmental pollution, etc. A breach of such acts may result in the imposition of fines and penalties. Failure to comply with the environmental regulations may result in an adverse impact on the Company's operations.

Regulatory risk: Exploration, development and mining operations are regulated by government legislations. The cost of compliance with such regulations can be significant and, in some circumstances, prohibitive. Even a change in government regulations may have an adverse impact on the Company's activities.

Competition: Exploration and mining is a highly competitive activity in all aspects. The Company has to compete with other companies in terms of financial resources and in the technical facilities needed in order to acquire mineral interests. The Company has to generate innovative ideas in order to confront competition.

Accessibility risk: The proximity of the properties of the Company, the restrictions on access as well as the project's climatic conditions might have an adverse impact on the Company's operations.

Financial risk: Mining companies are also exposed to substantial financial risk. The areas of risk involve maintaining sufficient funding for the continuation of operations and risks related to fraud, misappropriation and errors.

Funding risk: The main source of future funds available to the Company is equity. If the Company fails to realize the expected execution and returns, its reputation in the market would be hindered resulting in its facing future funding constraints.

Industry conditions: Mining operations are subject to various government regulations. Operations may be affected in varying degrees by government regulations such as restrictions on production; price controls; tax increases and expropriation of property; and pollution controls or changes in conditions. These factors are beyond the control of the Company and might have an adverse impact on its mining and exploration activities.

Uninsured hazards: Mining operations involve a high level of risk. At times the mining operations may result in hazards such as unusual or unexpected geological formations and other similar conditions. Such uninsured hazards may result in unexpected liabilities.

Occupational health and safety and work related safety risks: The exploration business is a highly speculative venture involving substantial risk. The exploration activity may result in the emission of harmful chemicals thereby affecting the health of the employees.

Annexure I: Management

Michael Hutchinson, B.Sc., Chairman

Mr. Hutchinson has served as Director of the London Metal Exchange, the world's largest market in options and futures contracts on base and other metals. He brings a wealth of experience to the board and his visibility in global financial markets is expected to benefit the Company immensely as it advances its projects in Greenland.

Michael also served as the Chairman of RBS Sempra Metals Limited and Wogen Plc, a trader of off-exchange metals that sources metals worldwide for industrial end users. He also previously served as a director of MG Plc.

Roderick McIlree, B.Sc. (Geology), Grad Dip. (Mineral Economics) MAusIMM, Managing Director

Mr. McIlree, after graduating from Curtin University of Technology in 1996, commenced his career in the mining industry where he worked for major mining companies, both domestic and global, gaining experience in all facets of mining. Roderick moved to the finance sector in the year 2000 and worked as an Analyst and Advisor to broking houses. He has experience in international capital raisings, having initiated several successful mining companies. He is also an Executive Director of Convergent Minerals Limited.

Malcolm Mason, B.Sc. Hons., FAIMM, Non-Executive Director

Mr. Mason has more than 40 years of experience in the Australian and International exploration and mining industry. His experience covers gold, base metals and non-metallic minerals. Since 1995, he has specialized in uranium. He has investigated many known deposits in Australia and overseas and has extensive experience in overseeing exploration and evaluation programs and feasibility studies. In 1996, Malcolm formed Acclaim Uranium NL, which successfully listed on the ASX. As the Managing Director, he implemented his "uranium only" strategy and acquired an extensive portfolio of Australian uranium projects. Among the projects were Millipede/Abercromby, Nowthanna and Lake Maitland calcrete deposits.

In 1998, Mr Mason helped identify the Langer Heinrich deposit for Acclaim Uranium NL, which then drilled and completed a feasibility study. In early 2005, he joined Redport Limited as a Strategic Adviser, assisting it in its acquisition of the Lake Maitland uranium deposit, and was involved in exploration and evaluation.

Simon Cato, B.A., MSDIA, Executive Director

Mr. Simon Cato has had over 20 years of capital markets experience as broker and regulator. He has been employed by the ASX in Sydney and in Perth to oversee the activities of listed companies.

Over the last 12 years, he has been an Executive Director of two stock broking firms. He has been involved in many aspects of the broking business. He has also been involved in the underwriting of a number of Initial Public Offers. Simon is also a Director of Altera Capital Limited, Sofcom Limited, Bentley International Limited and Convergent Minerals Limited.

Jeremy Whybrow, B.Sc. (Mineral Exploration and Mining Geology), G.Dip (Mineral Economics), MAusIMM, Exploration Director

Mr. Whybrow has over 12 years experience in the mining industry, both domestically and internationally. He has worked for Sons of Gwalia Ltd, PacMin Ltd, Teck Australia Ltd, Mount Edon Gold Mines Ltd and Croesus Mining NL. His experience has been mainly in the operational environment and includes significant exposure to exploration and mining operations, project evaluation and feasibility studies. Previously, he has worked in China, Africa and the Philippines, as well as numerous localities in Australia. Jeremy is also an Executive Director of Convergent Minerals Limited.

Tony Ho, B. Com, CA, FAICD, FCIS, Non-Executive Director

Mr. Ho has wide experience, having held Executive Director and Chief Financial Officer roles with a number of publicly listed companies. He was Executive Director of Arthur Yates & Co Limited, retiring from that position in April 2002. He has been Chief Financial Officer/ Finance Director of M.S. McLeod Holdings Limited; Galore Group Limited; the Edward H O'Brien group of companies; and Volante Group Limited.

Mr. Ho is a Non-executive Director of Dolomatrix International Limited, where he chairs the Audit and Compliance Committee. He is also the Non-executive Chairman of St George Community Housing Limited, the largest community housing company in New South Wales. He was a past Non-executive Director of Brazin Limited (September 1997 to January 2007) where he was also a member of the Audit and Remuneration Committees. Mr. Ho was previously a partner of Cox Johnston & Co. Chartered Accountants, which has since merged with Ernst & Young.

Mr. Ho holds a Bachelor of Commerce degree from the University of New South Wales and is a member of the Institute of Chartered Accountants in Australia and a fellow of both the Chartered Institute of Company Secretaries and the Institute of Company Directors.

Legal Notes and Disclosure

Some of the information in this report relates to future events or future business and financial performance. Such statements constitute forward-looking information within the meaning of the Private Securities Litigation Act of 1995. Such statements can be only predictions and the actual events or results may differ from those discussed due to, among other things, the risks described in 'Greenland Minerals and Energy Ltd' company reports. The content of this report with respect to has been compiled primarily from information available to the public released by Greenland Minerals and Energy Ltd through news releases and SEC filings. Greenland Minerals and Energy Ltd is solely responsible for the accuracy of that information. Information as to other companies has been prepared from publicly available information and has not been independently verified by Greenland Minerals and Energy Ltd or RBMG. Certain summaries of scientific activities and outcomes have been condensed to aid the reader in gaining a general understanding. For more complete information about Greenland Minerals and Energy Ltd the reader is directed to the Company's website at www.ggg.gl. This report is published solely for information purposes and is not to be construed as an offer to sell or the solicitation of an offer to buy any security in any state. Past performance does not guarantee future performance. This report is not to be copied, transmitted, displayed, distributed (for compensation or otherwise), or altered in any way without RBMG's prior written consent. RBMG is not compensated for any analytical research and evaluation services that are performed for Greenland Minerals and Energy Ltd, but RBMG has received cash compensation (under twenty five thousand US dollars) in exchange for other segregated services.