BUILDING THE FOUNDATIONS OF A WORLD-CLASS MINING PROJECT

GREENLAND
MINERALS AND ENERGY LTD

"Specialty Metals for a Greener World"

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JORC Compliance – Consent of Competent Persons

Information in this presentation that relates to mineral resource estimation reflects information compiled by Mr Robert Spiers and Arnold van der Heyden. Resource estimation was undertaken by Mr Spiers who with Mr van der Heyden are full time employees of Hellman and Schofield Pty Ltd. Mr Spiers is a Member of the Australian Institute of Geoscientists (AIG) and Mr van der Heyden is a member of the Australian Institute of Mining and Metallurgy (AusIMM). Mr Spiers and Mr van der Heyden have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Spiers and Mr van der Heyden consent to the reporting of this information in the form and context in which it appears.

Presentation Overview

- ***The Timing:***

  Rare Earth Metals **and** ***uranium*** **now recognised as strategically important commodities for the future**

- ***The Place:***

  GREENLAND – an emerging minerals province

- ***The Project:***

  Unearthing the *Ilimaussaq Ore Field*; building the foundations of a world-class mining project

- ***Current Status:***

  Technical update – process development, political developments

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Company Focus

Strategic Commodities For Tomorrow

Rare Earth Elements:

- ***Specialty metals with unique chemical and physical properties***
- ***Essential in many new technologies and consumer products***
  - ***Hybrid cars, wind turbines, laptops, ipods, flat screens, oil refining, catalytic converters, medical and military applications***
- ***Strategically important to the global manufacturing base***
- ***Imminent short supply as China reduces exports***

Uranium:

- ***World power crisis, climate change and the nuclear renaissance***
- ***Crucial base load energy supply for the future – clean and efficient***

Greenland

An Emerging Mineral Province

Politically stable democracy:

- *Autonomous constituent country within Kingdom of Denmark*
- *Increasing independence with transition from Home Rule to Self Rule*
- *Pro-mining government – increased independence is dependant on establishing strong minerals and hydrocarbon industries*

Extremely prospective:

- *Diverse geology exposed around coastal fringe*
- *Underexplored, yet strong geological survey, quality service providers*
- *High potential for world-class ore bodies near surface*

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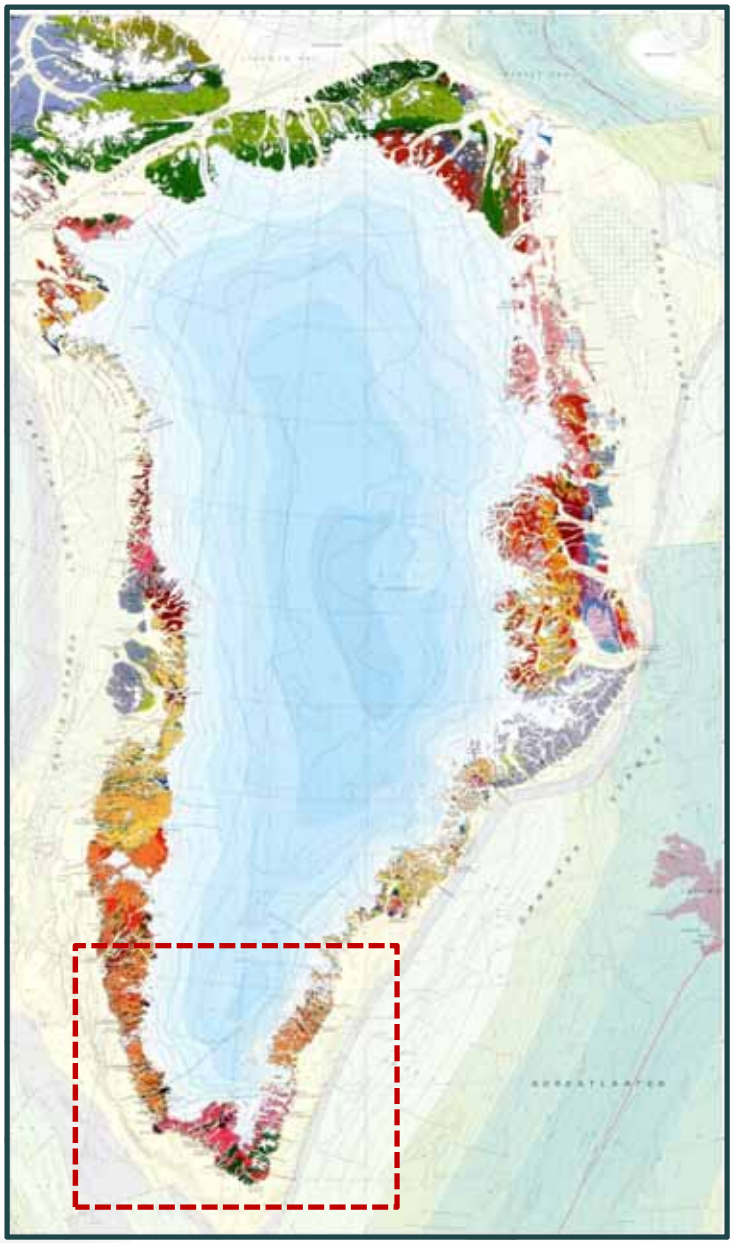
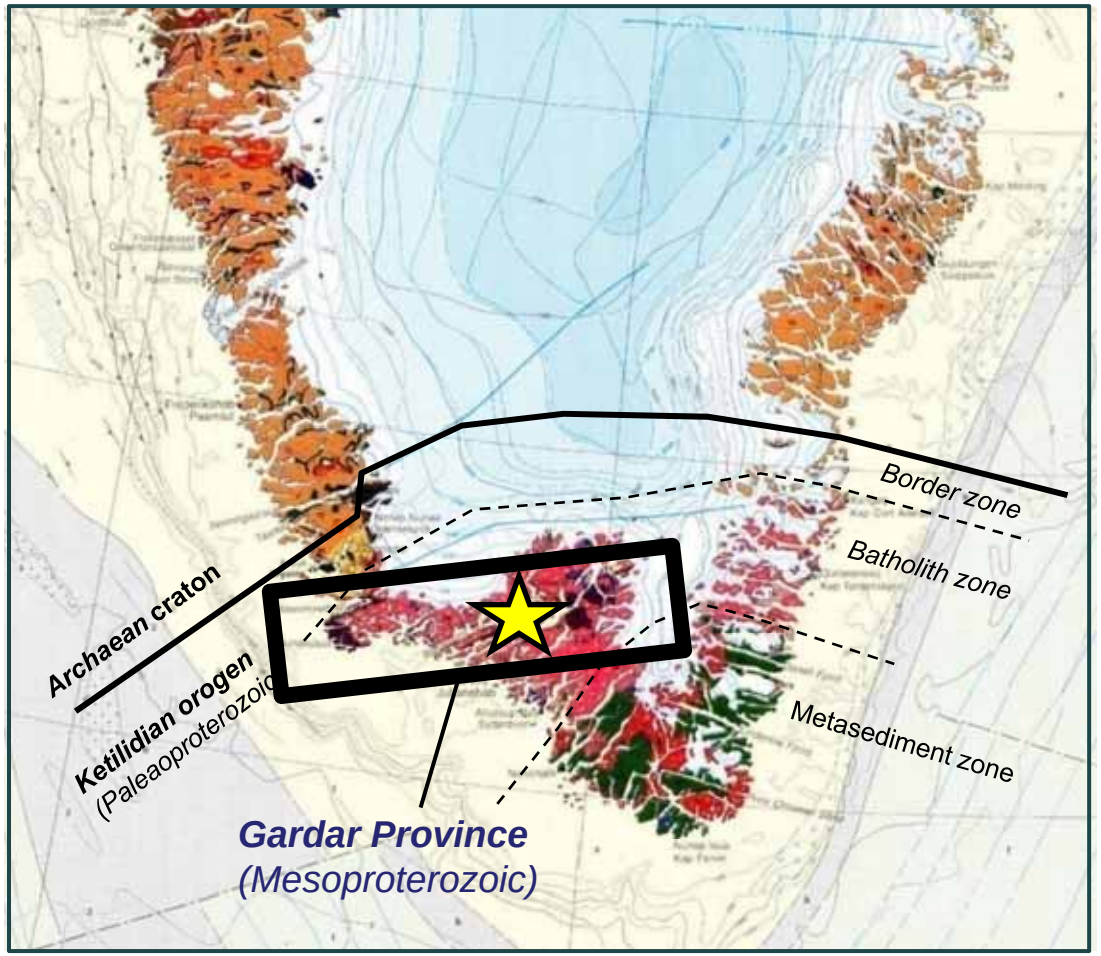
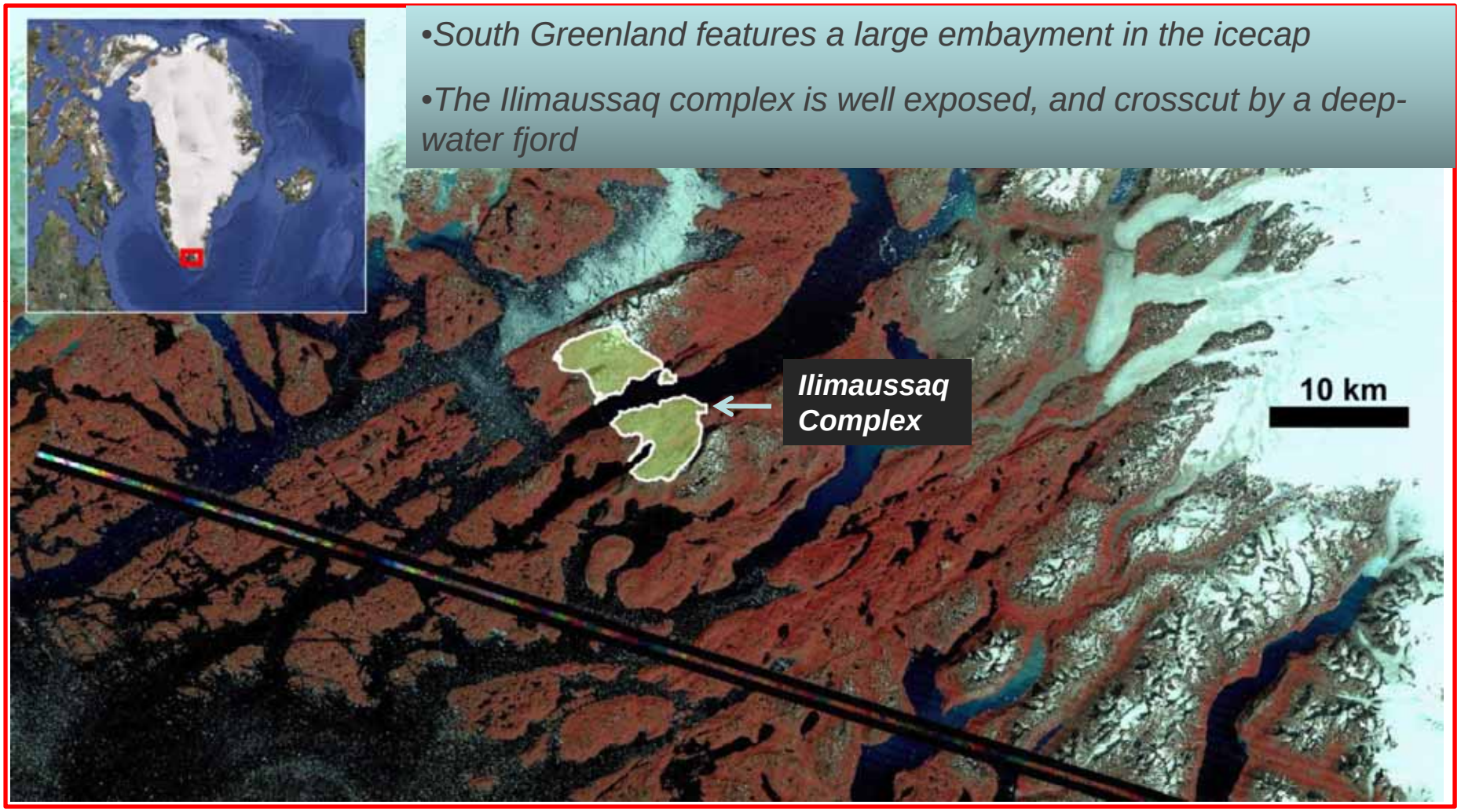
Greenland Geology





Gardar Province – Alkaline intrusions emplaced in a continental rift setting ***(e.g. Ilimaussaq Complex)***

Ilimaussaq Complex



False-colour image over south Greenland

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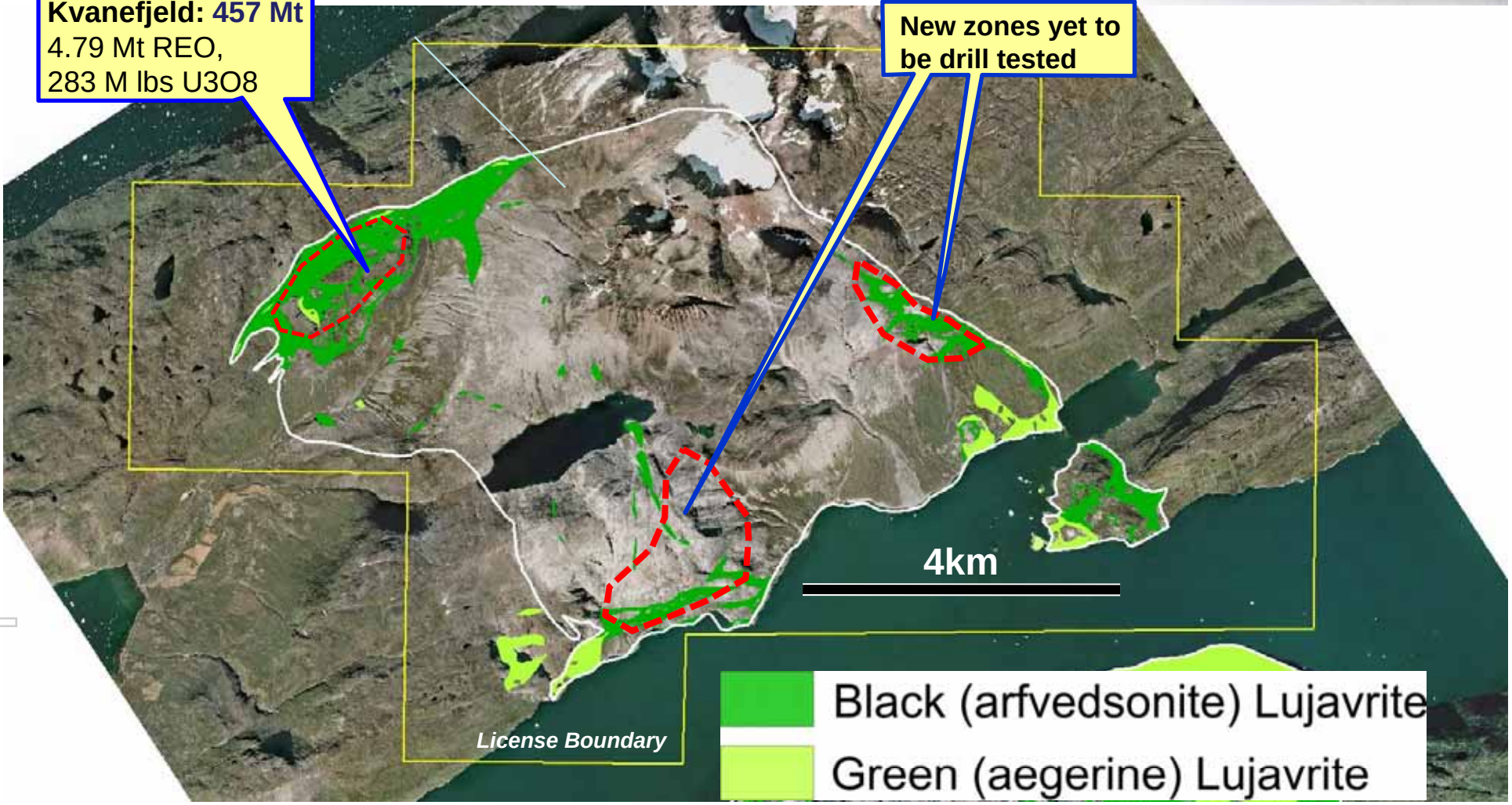
Ilimaussaq Intrusive Complex

Key Geological Units



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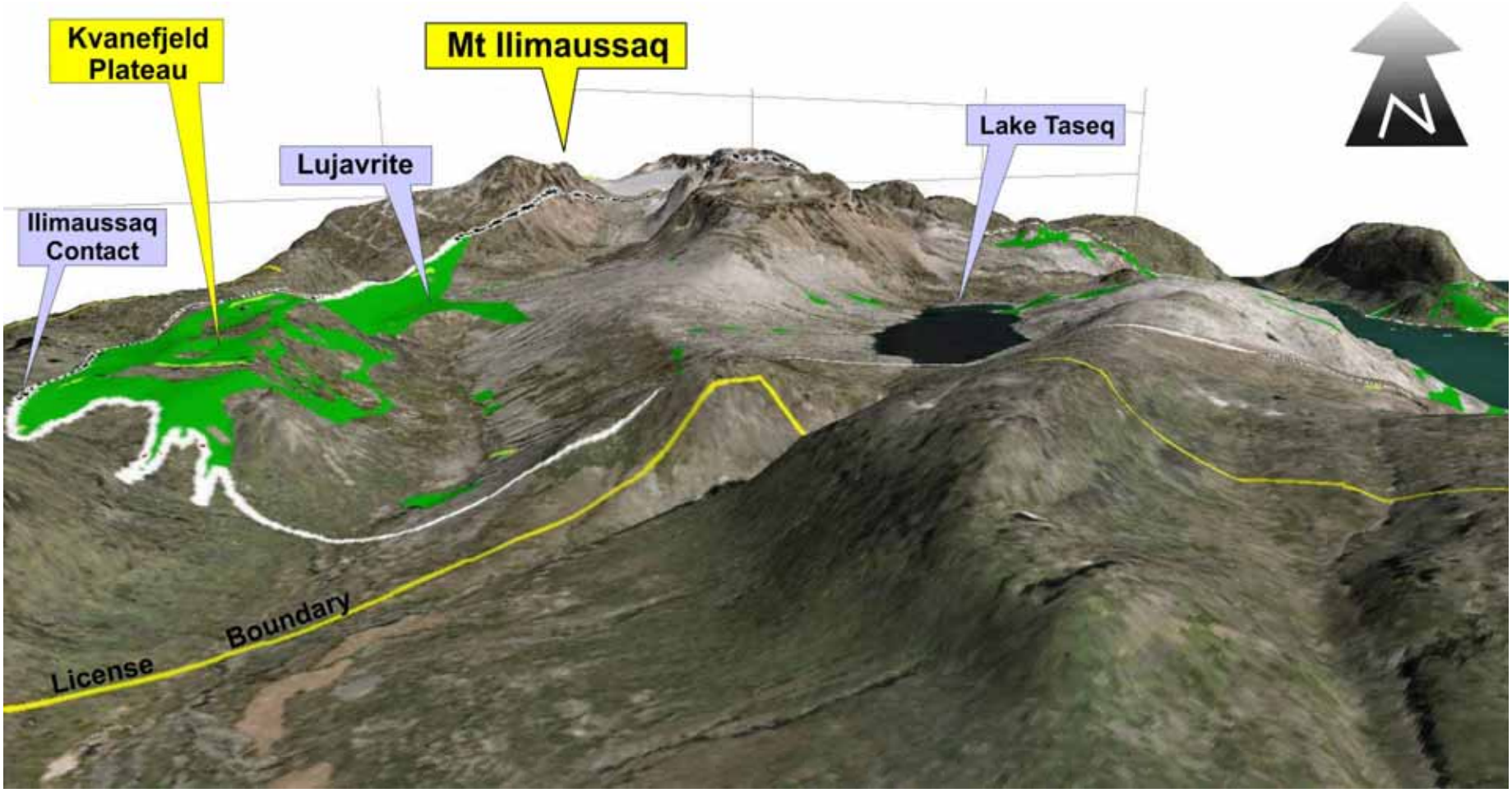
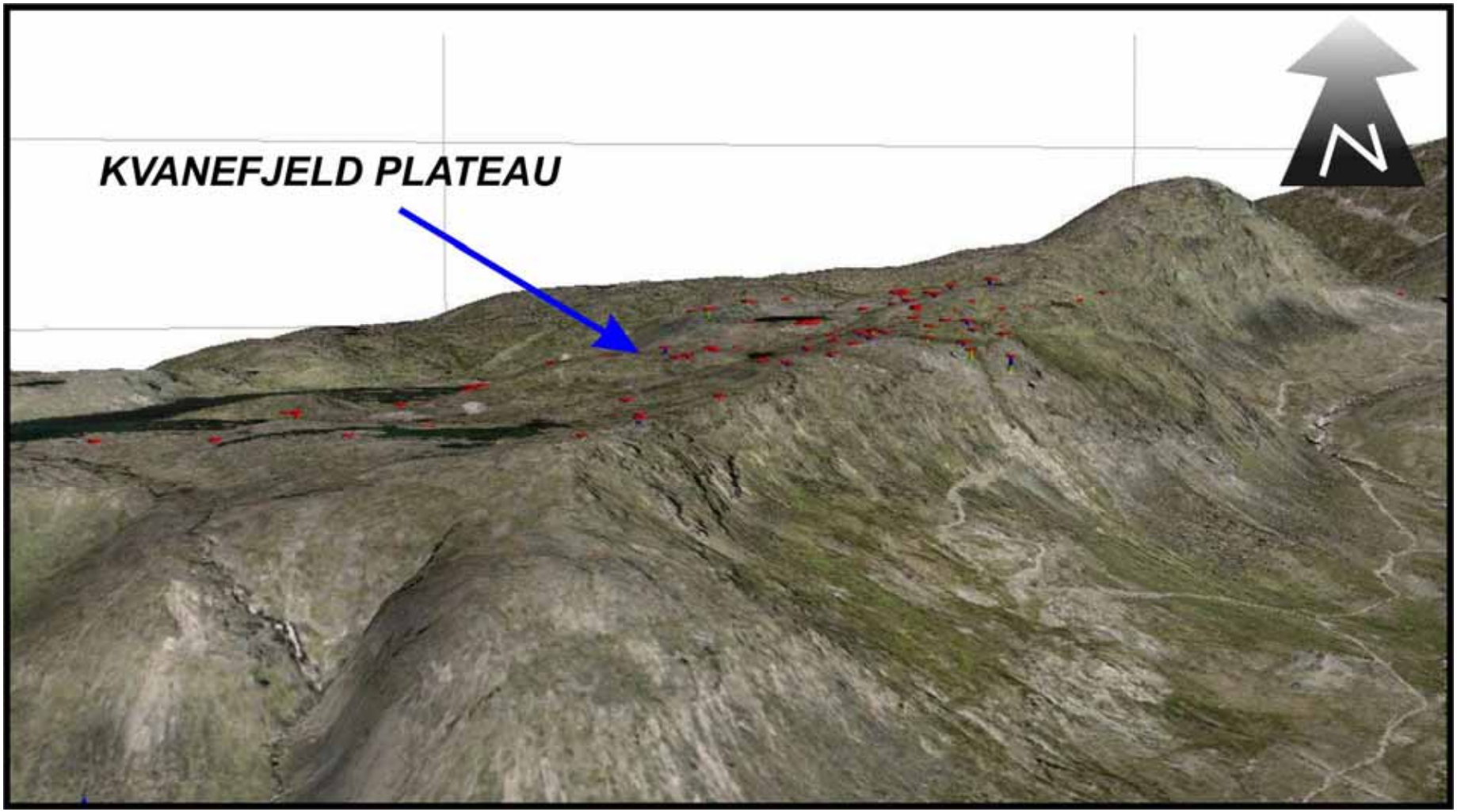
The Kvanefjeld Deposit

Geography



The Kvanefjeld Deposit



Kvanefjeld - Resources

At U_3O_8% cutoff grades[1]	Tonnes (million)	U_3O_8%[2]	U_3O_8 lb/t	TREO%[3]	Zn%	Resource category
	365	0.028	0.62	1.06	0.22	Indicated
0.015	92	0.027	0.59	1.12	0.22	Inferred
	457	**0.028**	**0.62**	**1.07**	**0.22**	**TOTAL**
	276	0.032	0.70	1.13	0.23	Indicated
0.020	63	0.031	0.69	1.21	0.24	Inferred
	339	**0.032**	**0.70**	**1.14**	**0.23**	**TOTAL**
	207	0.035	0.77	1.20	0.23	Indicated
0.025	43	0.036	0.78	1.31	0.25	Inferred
	250	**0.035**	**0.77**	**1.22**	**0.24**	**TOTAL**

457 Mt Resource containing:

4.9 Mt TREO @ 1.07%,

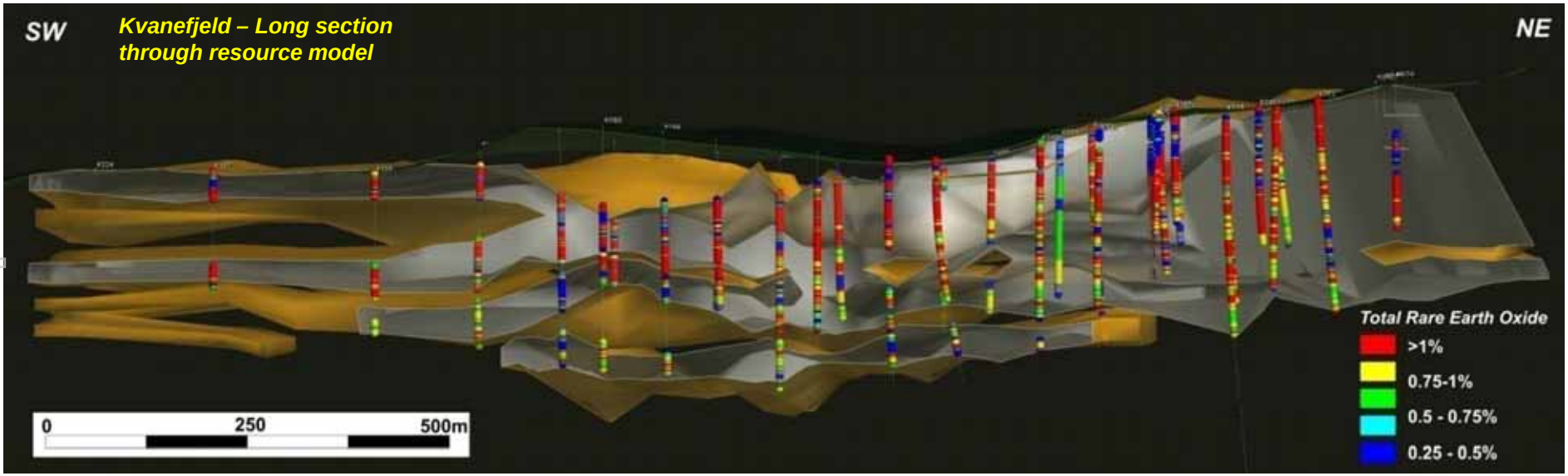
0.99 Mt Zn @ 0.22% Zn

282 Mlbs U_3O_8 @ 280 ppm U_3O_8

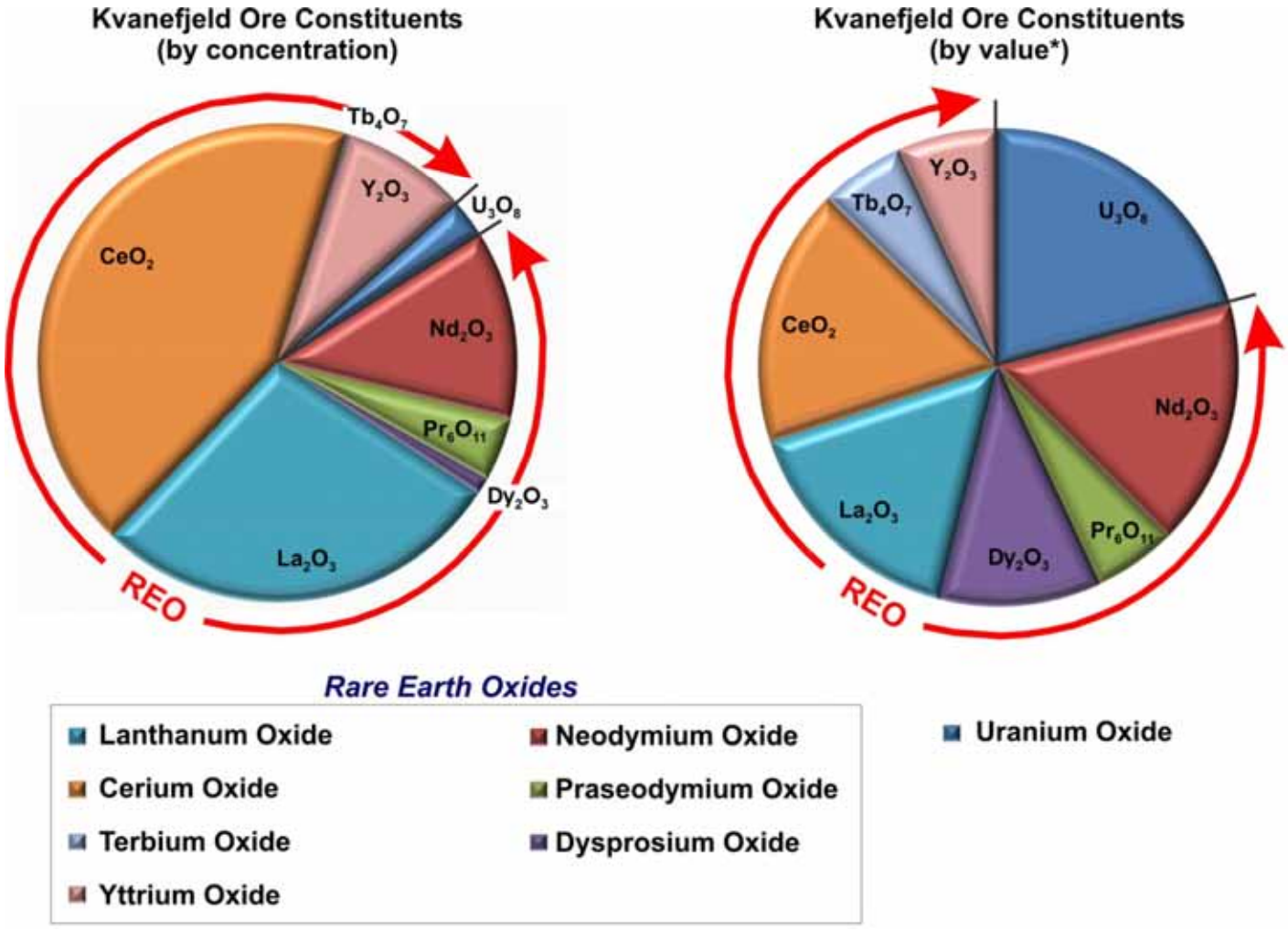
JORC – Compliant, 79% Indicated, 21% Inferred

Kvanefjeld – Resource Details

- **457 Mt resource, mostly outcropping and within 300m of ground surface**
- **Low strip ratio**
- **Highest grades are in the near-surface environment:**
  - Grades range from *>350 ppm U_3O_8, 1.3% REO near surface*, to 200 ppm U_3O_8 and 1% REO below 250 m depth
- **Resource is located 7 km from tidewater, with deep water fjords running directly out to North Atlantic Ocean**

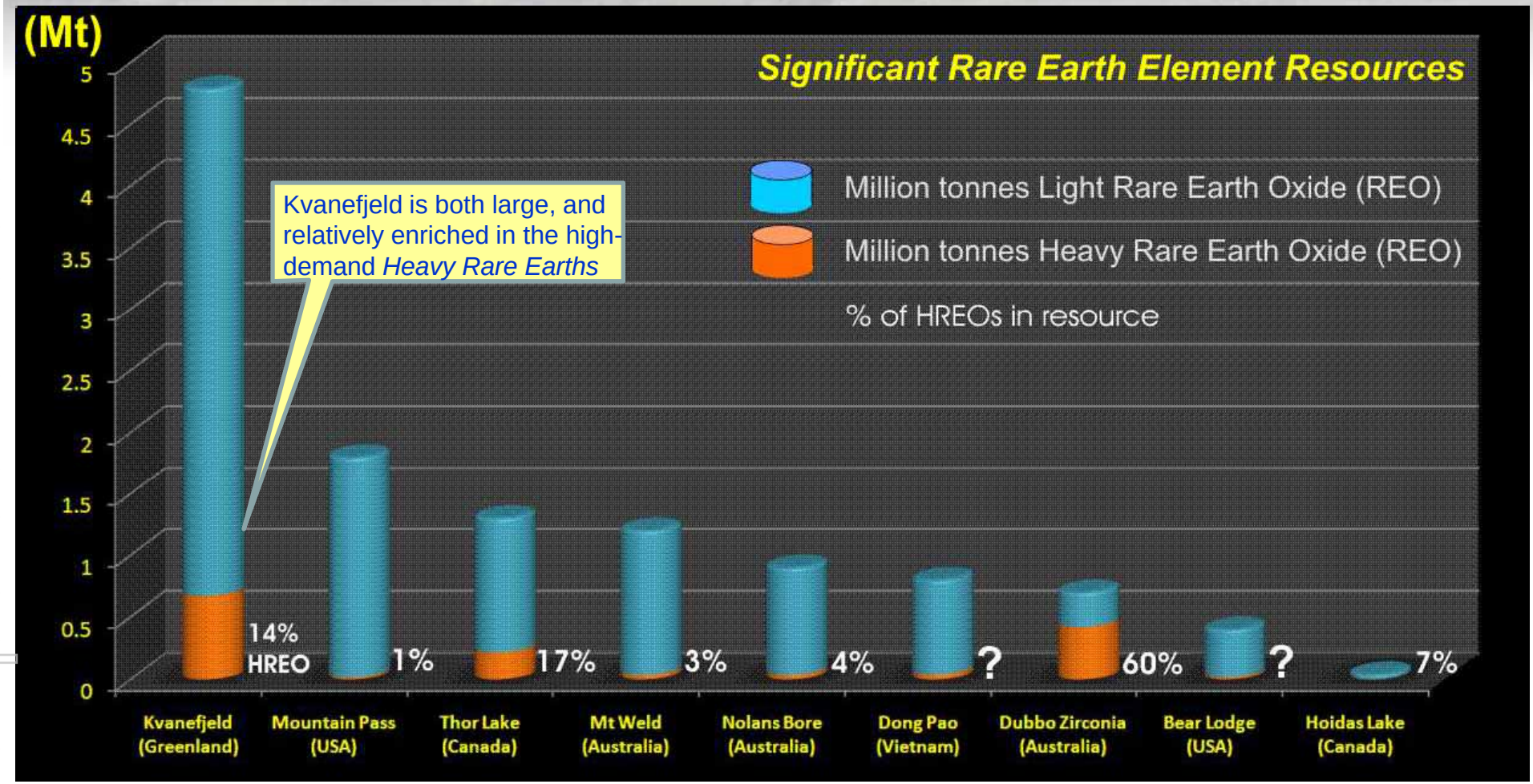


Kvanefjeld – Multi-Element Ore

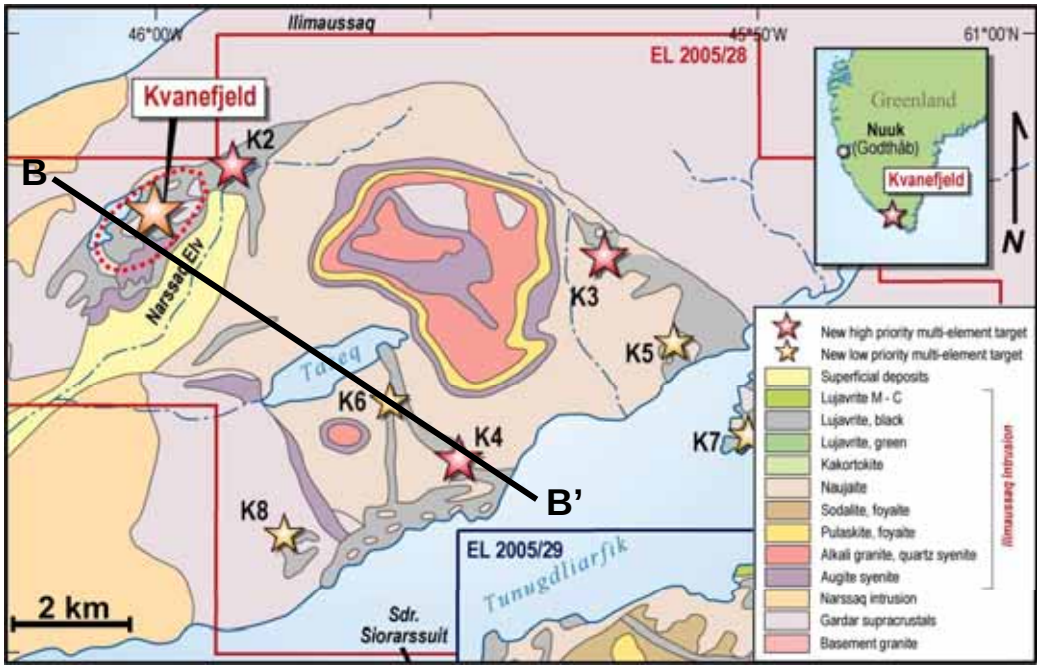


*Values based on grades in the geological model and August '08 resource statement, and metal prices for 1Q '09 (IMCOA)
(Excludes sodium fluoride and zinc)

The Global Significance of the Kvanefjeld Resource



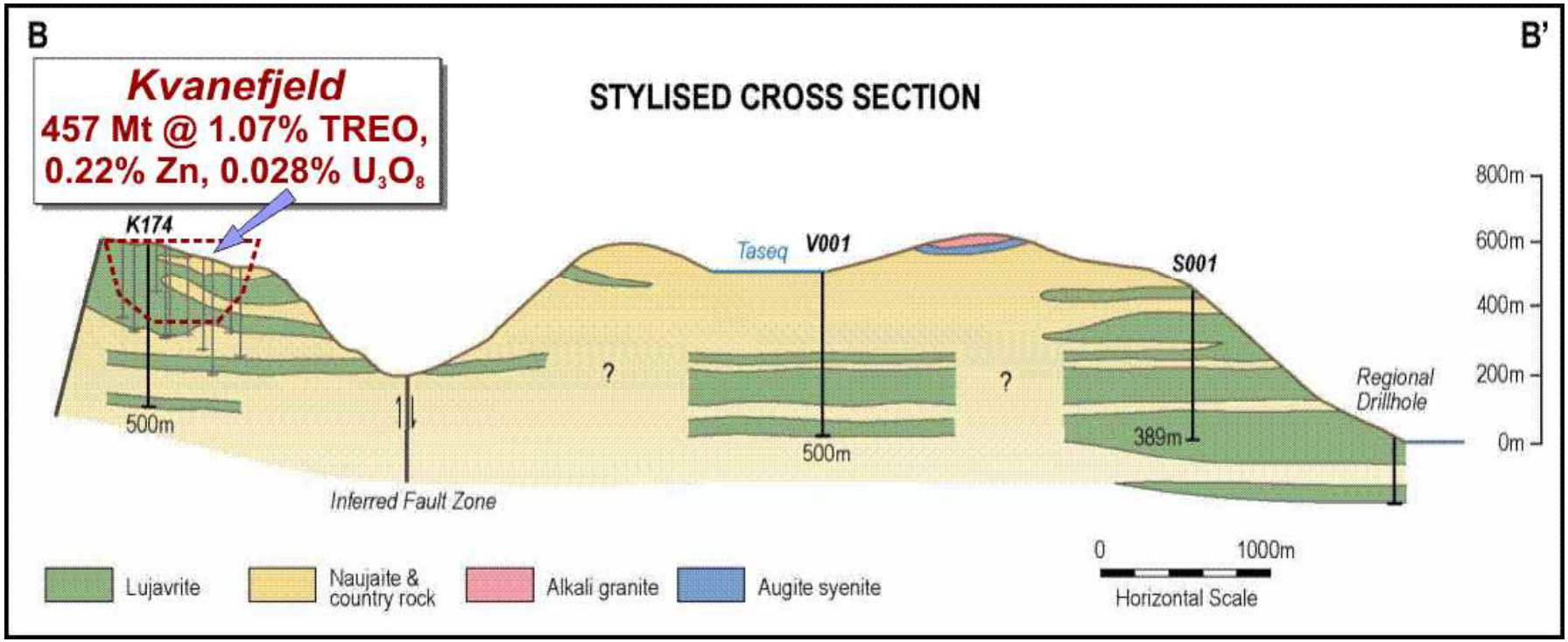
Known REE resources that are compliant by either the Australian JORC code, or Canadian National Instrument 43-101 standards. China also contains very significant REE resources but compliant figures are uncertain (Source IMCOA).



Ilimaussaq Complex Resource Potential

Regional drill holes demonstrate huge potential for new multi-element deposits

Lujavrite – host to multi-element ores, occurs throughout the northern Ilimaussaq Complex at varying depths



Kvanefjeld: Pre-Feasibility Study

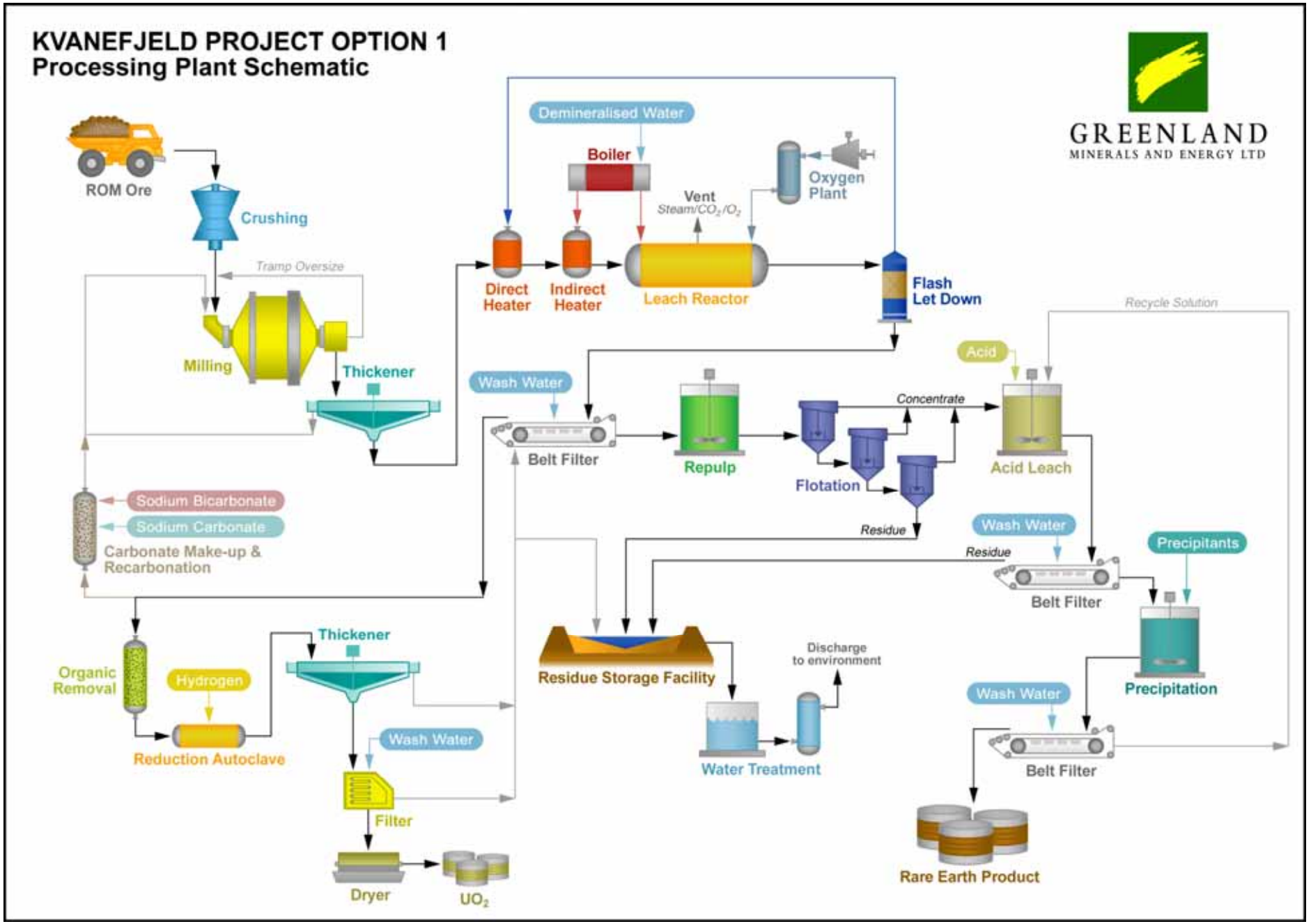
- **Resource definition and mine plans**
  - ***Coffey Mining, Hellman and Schofield***
- **Metallurgy and process development**
  - ***GRD Minproc, ANSTO, SGS Lakefield, CSIRO***
- **Environmental baseline and EIA**
  - ***Coffey Natural Systems, Orbicon*** *(Denmark)*
- **Infrastructure**
  - ***NIRAS*** *(Denmark)*
- **Capital development** – *indicative CAPEX and OPEX*
- **Marketing** – *product pricing, off-take partners*

Kvanefjeld: Pre-Feasibility Study

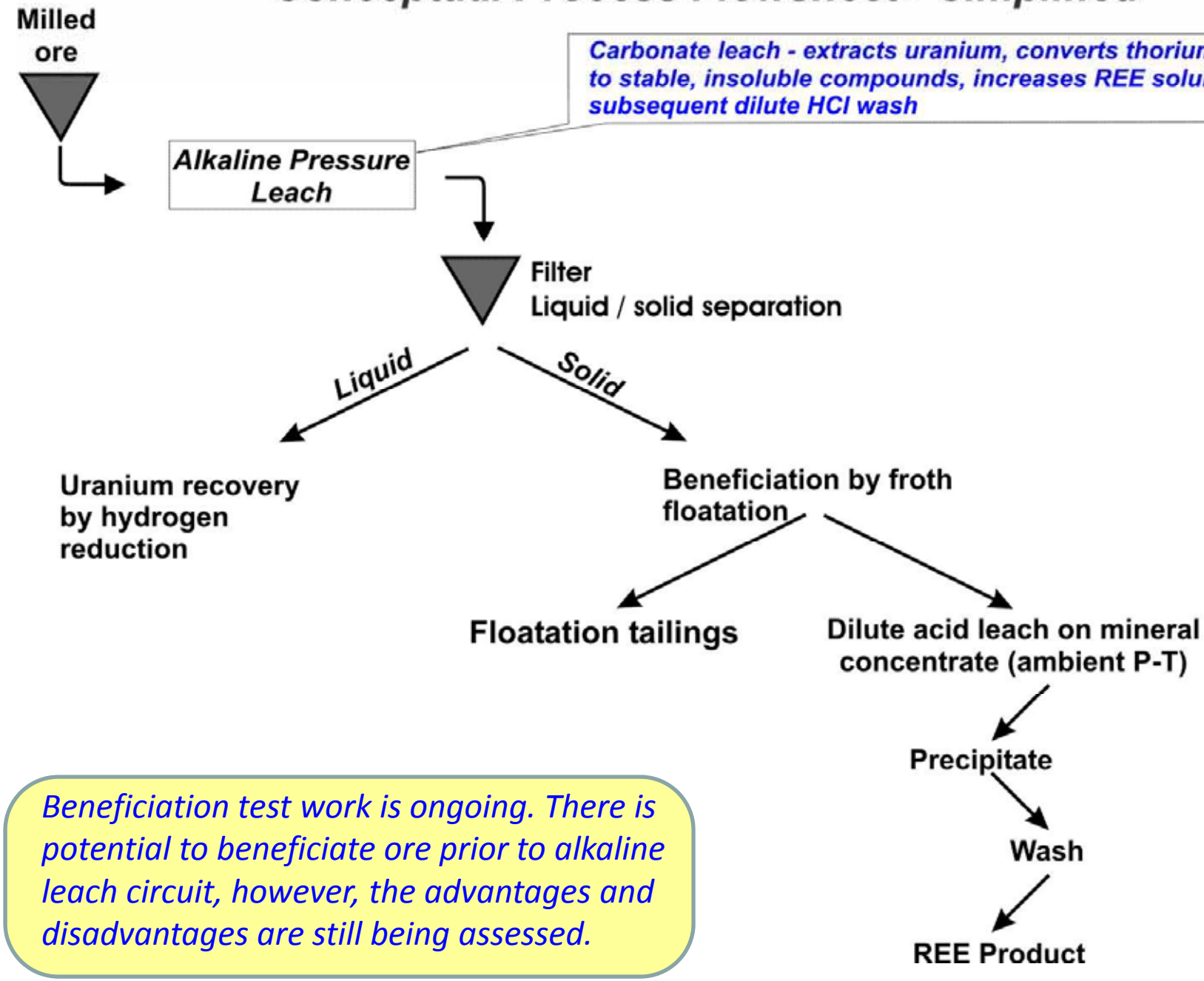
- ***Initial priority:*** demonstrate that REEs and uranium can be extracted economically from what is a *"new ore type"*
- Study draws on extensive historic work conducted by Danish to create a "base case"
- Danish studies demonstrated uranium extraction via *alkaline pressure leach – this concept is being updated and refined by* ***GRD Minproc***
- Major advances in mapping ore body and integrating ore-types with metallurgical response
- **ANSTO** – driving REE extraction studies; *conceptual circuit defined*
- REE minerals can be effectively concentrated by floatation. Scope to use gravity methods to further concentrate ore minerals. Beneficiation studies ongoing

Conceptual process flow sheet – base case scenario:

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



Conceptual Process Flowsheet - Simplified



Beneficiation test work is ongoing. There is potential to beneficiate ore prior to alkaline leach circuit, however, the advantages and disadvantages are still being assessed.

Community and Council Meetings

- Participated in key stakeholder meetings held Sept 2nd, Narsaq Greenland

- Minister for Commerce and Raw Materials visited site, and attended meetings with South Greenland's council and Company representatives

- Public meeting held in Narsaq to update community and debate issues:

  - *Meeting panel included Company representatives, Minister for Commerce and Raw Materials, the Mayor of south Greenland*

  - *Strong local support for the project, in recognition that the project represents the cornerstone of a major new industry push in south Greenland*

- Recognition from all stakeholders of the significance of the project, and the need to advance the project into the *Definitive Feasibility Process*

Site visit to Kvanefjeld project area, September 2nd, 2009

The Honorable Mr Ove Karl Berthelsen (Minister for Commerce and Raw Materials); Dr John Mair (Greenland Minerals); Mr Simeon Simenson (Mayor of South Greenland); Mr Jørn Skov Neilson (Director of Bureau of Minerals and Petroleum)

SUMMARY

- **Building the foundations of a world class mining operation in southern Greenland**
- **Aiming to be a large scale producer of rare-earth concentrates and uranium oxide, with additional revenues from zinc**
- **Resource is already 457 Mt, with scope to define new large tonnage multi-element zones, with the possibility of improved grades**
- **Pre-feasibility studies well advanced, strong community support**
- **At $0.50/share (AUD), the company remains *grossly undervalued* in comparison to industry peer valuations.**

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www.ggg.gl

Greenland Minerals and Energy Ltd

- ***Mineral exploration and development company***
- ***Listed on the Australian Securities Exchange (ASX:GGG)***
- ***Head office – Perth, Australia***
- ***Operations base – Narsaq, Greenland***

Key Personnel

Michael Hutchinson – ***Non-Executive Chairman***
- Director of the London Metals Exchange, Chairman of RBS Sempra Metals Ltd.

Roderick McIllree - ***Managing Director***
- Geologist, resource analyst, corporate experience in international capital markets

Dr Hans Kristian Schønwandt – ***Non-Executive Director***
- Geologist, former Deputy Minister of Mines for Greenland

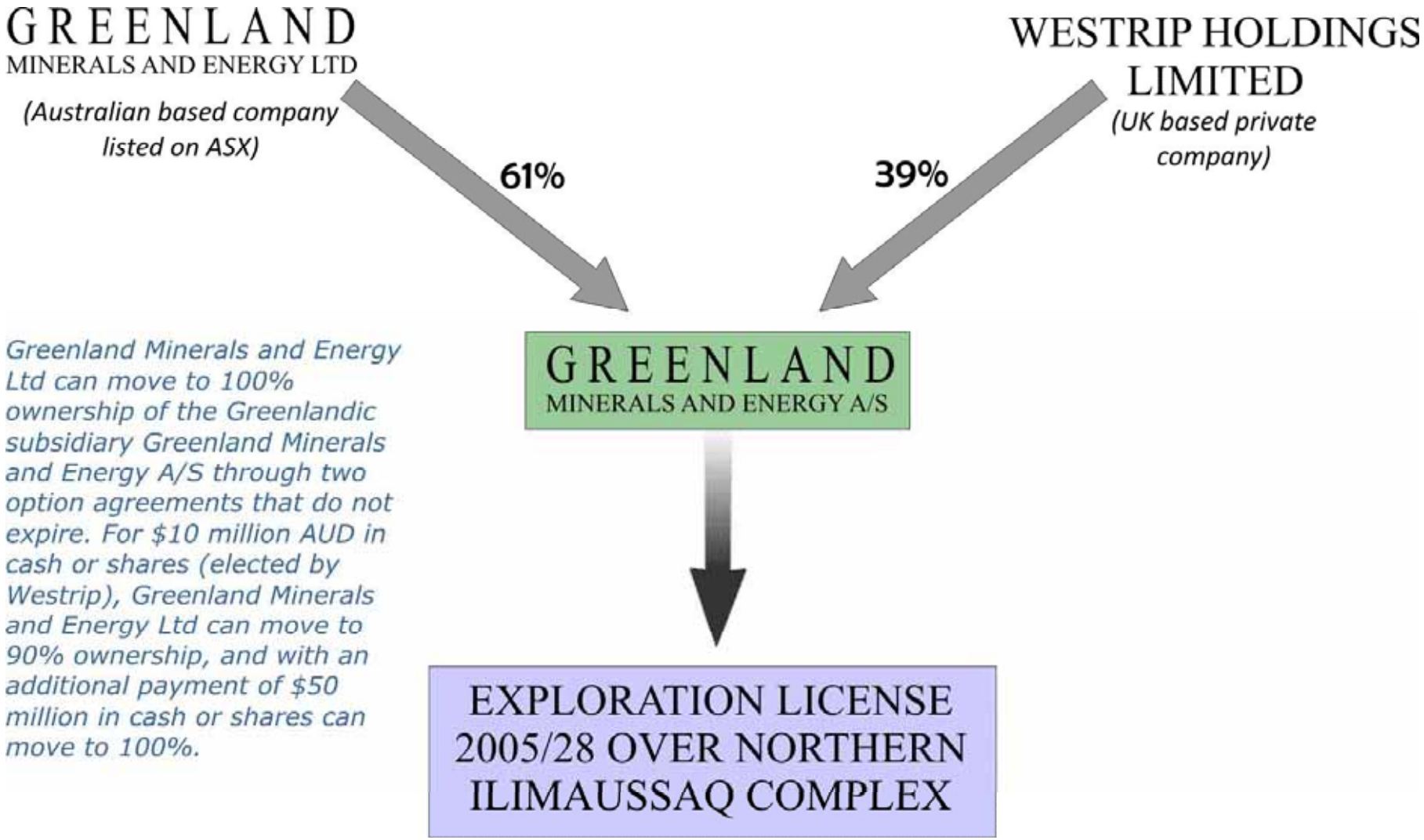
Lars-Emil Johansen ***Chairman of Greenlandic subsidiary***
- Prime Minister of Greenland 1991-1997

Greenland Minerals and Energy Ltd

Capital Structure

Quoted ordinary shares	151,508,552
Restricted ordinary shares:	67,000,000
Total ordinary shares:	**218,508,552**
Quoted options exercisable $0.20:	144,332,050
Unquoted options exercisable $0.10:	750,000
Unquoted options exercisable $0.20:	24,300,000
Unquoted options exercisable $0.50:	3,500,000
Unquoted options exercisable $1.00:	3,500,000
Unquoted options exercisable $1.50:	1,888,840

Project Ownership Structure



Greenland Minerals and Energy Ltd can move to 100% ownership of the Greenlandic subsidiary Greenland Minerals and Energy A/S through two option agreements that do not expire. For $10 million AUD in cash or shares (elected by Westrip), Greenland Minerals and Energy Ltd can move to 90% ownership, and with an additional payment of $50 million in cash or shares can move to 100%.

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

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

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