QUEST RARE MINERALS LTD.

Corporate Presentation
TREM12 - Washington, DC
March 13-14, 2012

Enabling green technologies...

Through rare earth metal exploration and development

DISCLAIMER

Forward-Looking Statements

Forward Looking Statements

Except for the statements of historical fact contained herein, the information presented constitutes "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievement of the Company to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements.

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Cautionary Note to U.S. Investors Concerning Estimates of Measured, Indicated and Inferred Resources

This presentation uses the terms "Measured, "Indicated" and "Inferred" Resources. U.S. investors are advised that while such terms are recognized and required by Canadian regulations, the Securities and Exchange Commission does not recognize them. "Inferred Resources" have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of an inferred resource will ever be upgraded to a higher category. Under Canadian rules, estimates of Inferred Resources may not form the basis of feasibility or other economic studies. U.S. investors are also cautioned not to assume that all or any part of an Inferred Mineral Resource exists, or is economically or legally mineable.

National Instrument 43-101

This presentation may include historical reserve and resource information in respect of the project areas that do not conform to the requirements of National Instrument 43-101 and which has not been verified by the Company.

INVESTMENT HIGHLIGHTS

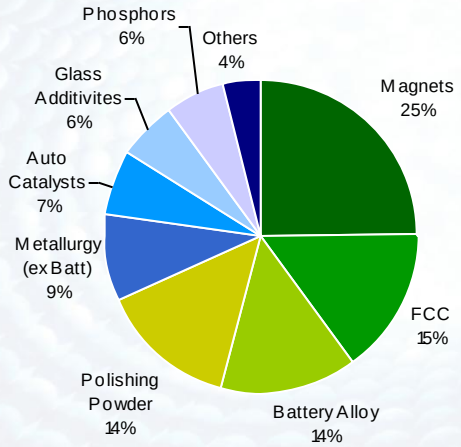
- **Chinese dominance on the REE supply side (97%) is for the light REE: they do not dominate in the critical higher-value heavy REE (HREE)**
  - HREE command substantially higher prices than lighter rare earths
  - Future fundamentals anticipated to be strong, China to become a net importer by 2015
- **Strange Lake is the largest HREE resource and one of three advanced developments that will aid in solving the impending Critical Rare Earth supply deficit past 2020**
  - Located in Quebec, one of the best mining jurisdictions in the world
  - Mineralized areas are open in all directions and at depth
- **Deposit is at surface and amenable to low-cost, open pit mining and shows robust economics from Quest's 2010 Preliminary Economic Assessment (PEA)**
  - Pre-tax IRR of 36%, $NPV_{12\%}$ of $1.4 billion, $600-750 million CAPEX, OPEX $125-$150 per tonne, minimum 25-year mine life, 4,000 tonnes per day, 15,000 t of RE oxides
- **Construction of a Quebec-based separation complex could place the province with a lead role as a long-term, stable supplier of separated and refined rare earth oxides**
- **Strong Technical and Development Team with in excess of 250 years of mine operations experience**

MARKET FUNDAMENTALS

Rare Earths Overview

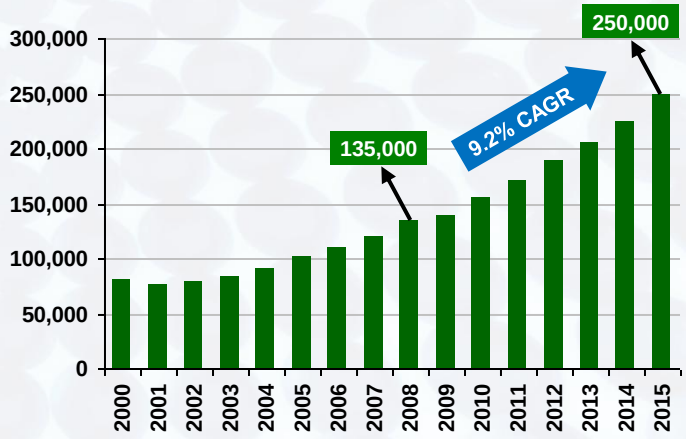
- **Rare earths are critical and strategic materials on the global stage**
- A series of 17 elements integral to the high-technology, nanotechnology, hybrid automotive, aerospace and defence industries – virtually NO substitutes
- Growth in demand for hybrid batteries, advanced computer circuits, auto catalysts, super alloys and super magnets **(Green Power / Green Tech)**
- Principal consumers are the U.S., Japan, Korea, Western Europe and China
- New applications being developed continually over the last 30 years

Rare Earth Usage by Industry (2010)



10%-12% consumption growth projected through to 2015

Rare Earth Usage by Tons



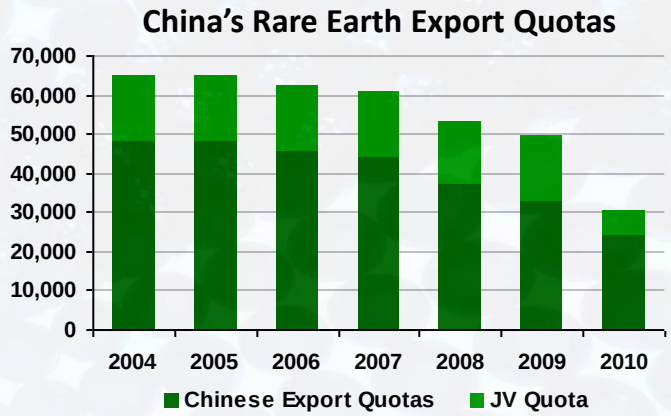
Projected non-Chinese Supply Shortfall of 80,000 Tons by 2015

Source:
Electric Metals Green Book, Byron Capital Markets - **April 2010**
Roskill

CHINA UPDATE

Export Quota and Stockpiling Benefit Producers such as QRM

- **China currently produces 97% of the world's rare earth elements**
- **Rare Earths Industry Development Plan (2009-2015) released by the Chinese government in August 2009 will further restrict the export of rare earths**
  - Authorization power for new projects to shift from provincial to central government
  - Annual export quota for rare earths to be contained below 30,000 tons annually
  - Prohibits export of certain heavy rare earths
    - E.g. Dysprosium, which is a critical material used in hybrid and electric vehicles



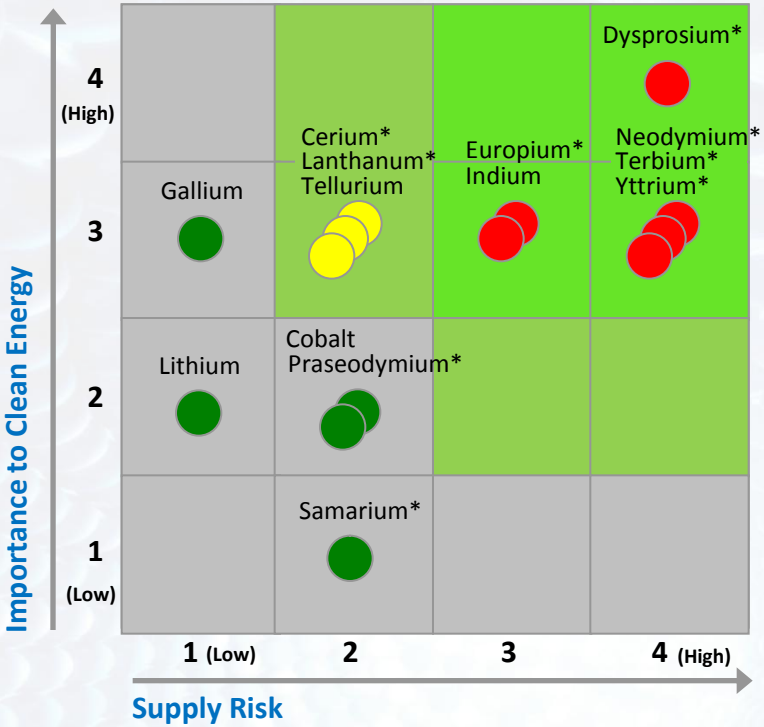
- **Top rare earth producer (Baotou Steel) to build 200,000 ton stockpile**
  - China is also contemplating building state rare earth stocks for domestic use
- **Chinese production is projected to decline from 120,000 tons per year in 2010 to 100,000 tons in 2015**
  - Non-Chinese suppliers will have to address supply gap of 80,000 tons per year

Sources:
China to Tighten Control on Rare Earth Output and Exports, Metal-Pages - **August 17, 2009**
Top China Rare Earth Producer to Build Stockpile, Reuters - **August 27, 2010**
Chinese Ministry of Commerce, Chinese Society of Rare Earths

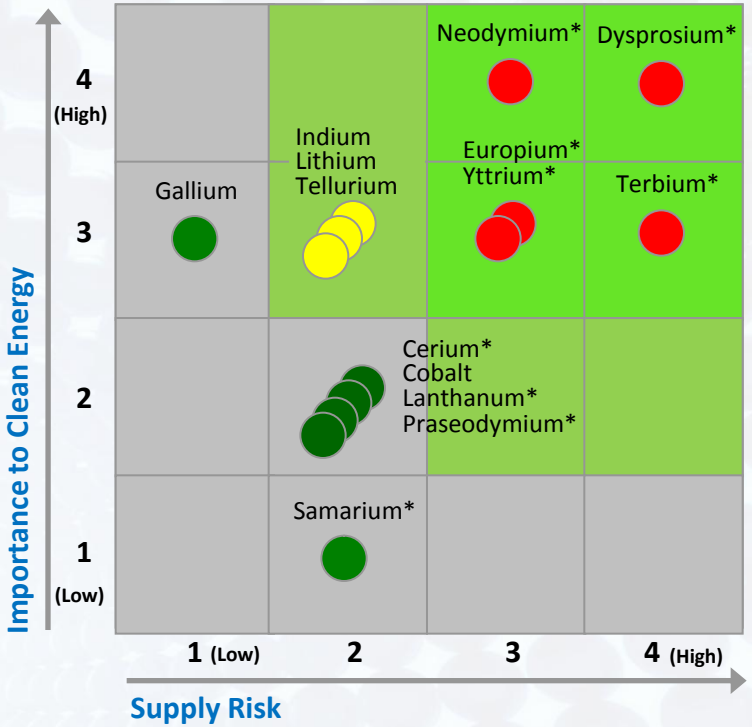
RARE EARTH CRITICALITY MATRIX (DOE 2011)

QRM Will Supply Critical Rare Earth Elements

Short Term (0-5 Years)



Medium Term (5-15 Years)



Element Criticality

- Critical
- Near Critical
- Not Critical

% of QRM In-Situ Value (1)	
Critical	66.5%
Near Critical	19.6%
Not Critical	13.0%

* Elements included in QRM Strange Lake deposit

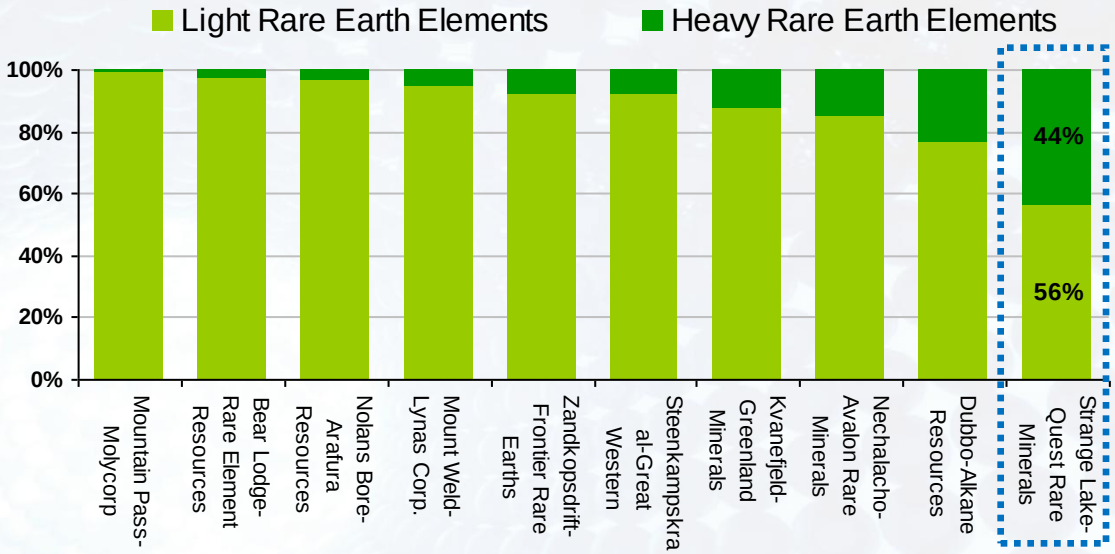
Over 85% of QRM In-Situ Value Comes from Critical or Near Critical Elements (1)

Source: U.S. Department of Energy, *Critical Materials Strategy*, December 2011
(1) Based on short-term criticality. Assumes PEA pricing.

LIGHT VERSUS HEAVY RARE EARTHS

Premium Pricing for Heavy Rare Earth Oxides (HREO)

- Rare earths are sub-divided into light and heavy elements
- Heavy rare earths are more scarce and generally command premium prices
- China has significant light rare earth assets and is expected to be a net importer of heavy rare earths by 2015



QRM has the highest ratio of HREO relative to TREO of all the expected near term producers

Heavy Rare Earth Project Comparison Table

The B-Zone Contains the Largest Known TREO/HREO Resource

	Quest Rare Minerals Ltd.	Avalon Rare Metals Inc.	Alkane Resources Ltd.	Tasman Metals Ltd.	Matamec Explorations Inc.	Stans Energy Corp.	Ucore Rare Metals Inc.
Project Name	**Strange Lake (B-Zone)**	Nechalacho (Basal Zone)	Dubbo	Norra Kärr	Kipawa	Kutessay II	Bokan Mountain
Location	**Québec, Canada**	Yukon, Canada	Western Australia	Gränna, Sweden	Québec, Canada	Chui, Kyrgyzstan	Alaska, USA
Total Resource Size (mt)	**229.8 million**	91.4 million	73.2 million	60.5 million	16.3 million	18.0 million	3.7 million
TREO Grade (%)	**0.91%**	**1.63%**	0.89%	0.54%	0.50%	0.26%	0.75%
HREO Grade (%)	**0.37%**	0.34%	0.23%	0.29%	0.19%	0.13%	0.32%
HREO/TREO	**40.66%**	20.86%	25.84%	**53.70%**	38.00%	50.00%	42.67%
TREO Resource (t)	**2.1 million**	1.5 million	0.65 million	0.33 million	0.08 million	0.05 million	0.03 million
HREO Resource (t)	**853,860**	312,900	167,960	177,210	30,400	25,000	8,805
Resource Category	**Indicated/ Inferred**	Indicated/ Inferred	Indicated/ Inferred	Inferred	Indicated/ Inferred	Measured/ Indicated/ Inferred	Inferred

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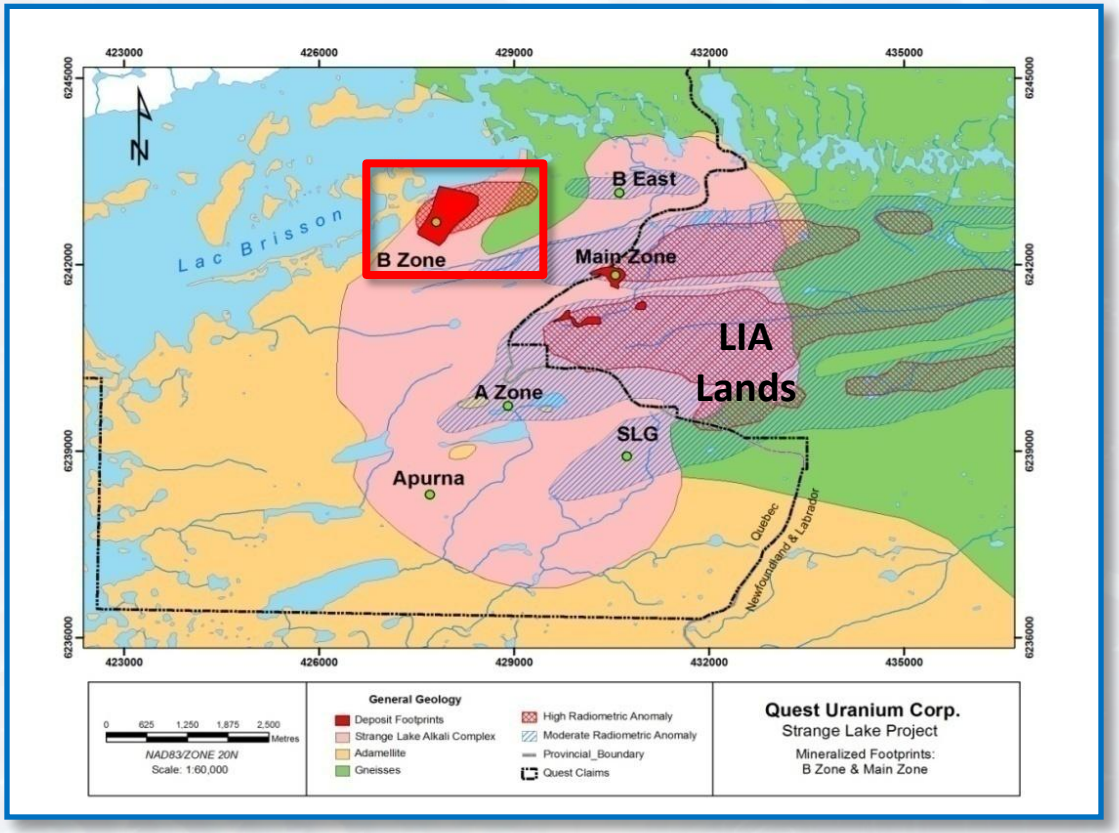
Recent Project Developments

- 2009 exploration led to the discovery of a new rare earth metal deposit, the B-Zone REE deposit at Strange Lake
- Recently completed an Indicated and Inferred Resource Estimate as well as a Preliminary Economic Assessment of the Strange Lake B-Zone deposit. Working on PFS
- Analyst coverage by five investment houses in 2011

STRANGE LAKE PROJECT

B-Zone Discovery

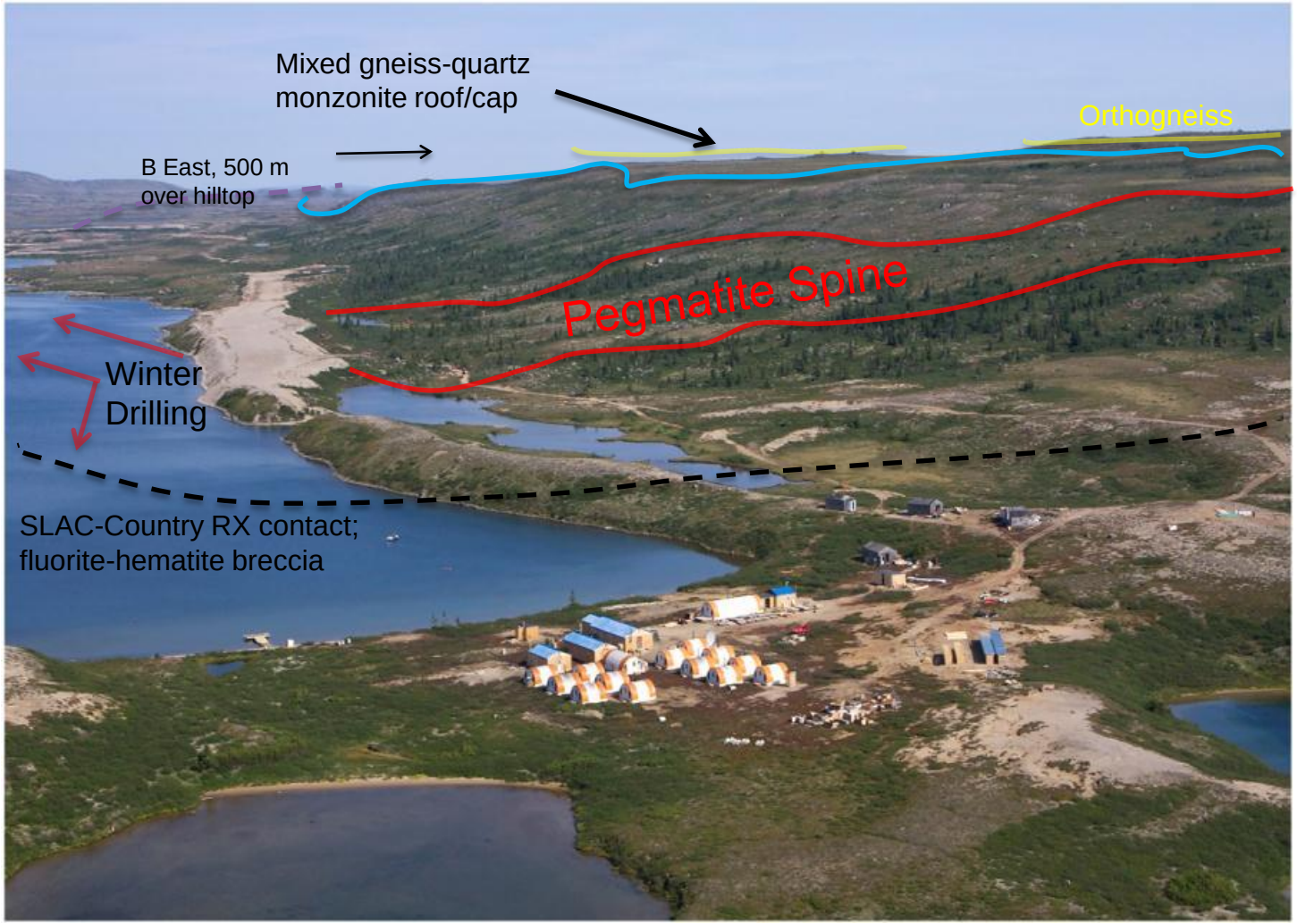


Between 31% and 77% Heavy REE

- Airborne survey identified a 2.2-km by 500-m radiometric anomaly
- Drilling on the B-Zone deposit confirmed very strong grades and vertical thickness of REE and high proportions of heavy REE
- Zone traced over 1.7 km strike length and 400 m in width returning grab samples up to **14.4% TREO**
- Definition drilling in 2009 and 2010 has defined a large, surface outcropping deposit that could be mined by open-pit

STRANGE LAKE PROJECT

Strange Lake B Zone – Large Surface Resource



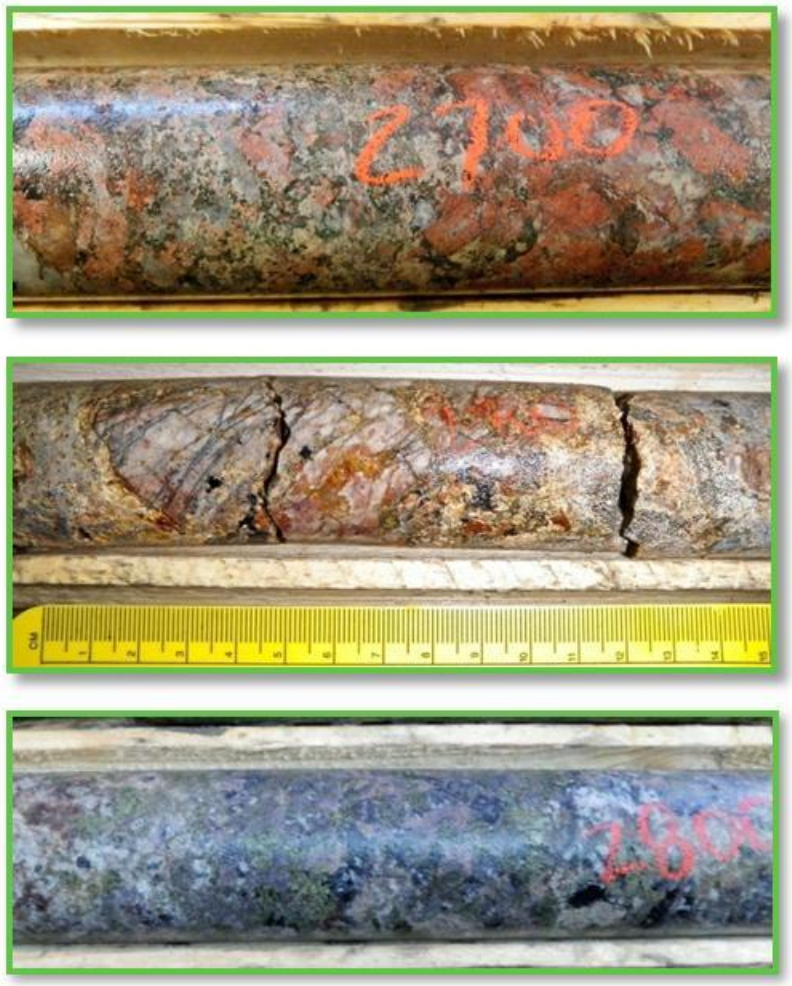
- Resource open to expansion in all directions
- Preliminary Economic Assessment based only on near-surface mineralization

2010 drilling significantly expanded the high-grade surface resource

HIGHER HREO CONTENT AT SURFACE

Drill Core: What Does HREO Mineralization Look Like?

- **Drilling samples display significant amounts of Total Rare Earth Oxides (TREO) and Heavy Rare Earth Oxides (HREO)**



Drill A Results (1.00 m)

- 4.96% TREO; 80.9% HREO (4.01%)

Drill B Results (0.50 m)

- 5.09% TREO; 70.4% HREO (3.58%)

Drill C Results (1.00 m)

- 5.45% TREO; 75.6% HREO (4.12%)

PEA KEY PARAMETERS (SEPT. 2010)

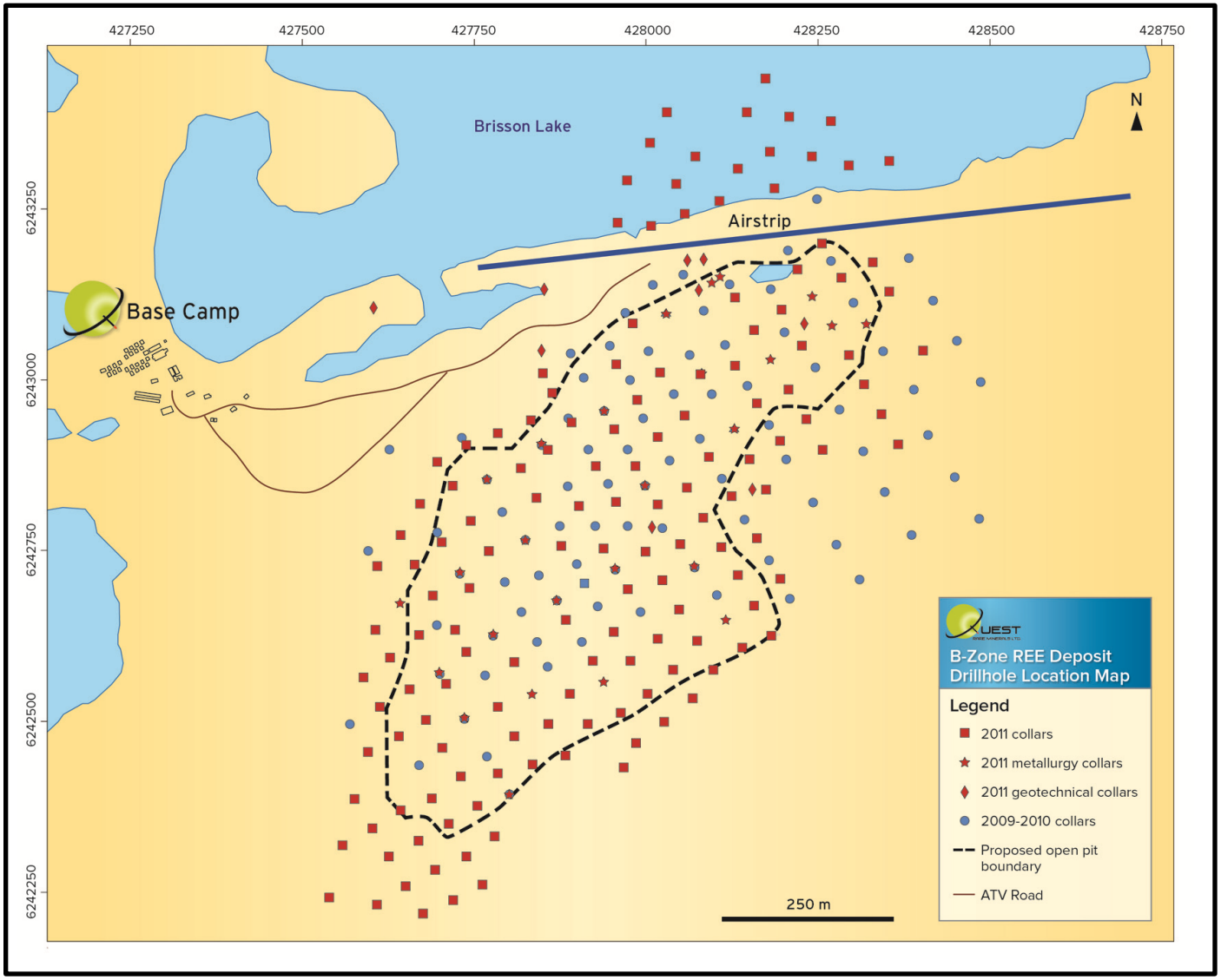
Will Be Better Represented In Our Upcoming PFS

PARAMETER	CONCLUSION
Minimum Mine Life	25 years
Production Rate	4,000 tpd
Strip Ratio (Waste to Ore)	0.23: 1
Estimated Total Costs	$125 to $160 per tonne
Rare Earth Oxide Deliveries	~15,000 tonnes
Capital Expenditure	$600-$750 million
Pre-Tax IRR	30%+
Pre-Tax $NPV_{12\%}$	$1.4 billion
% of Global $Supply_{2016}$	8-10%
Principal REE	**Nd**, **Tb**, **Dy**, **Y**, Er, Lu
Co-Products	**Nb**, Zr, Hf, Be

The parameters presented by the PEA will be firmed up in our upcoming PFS

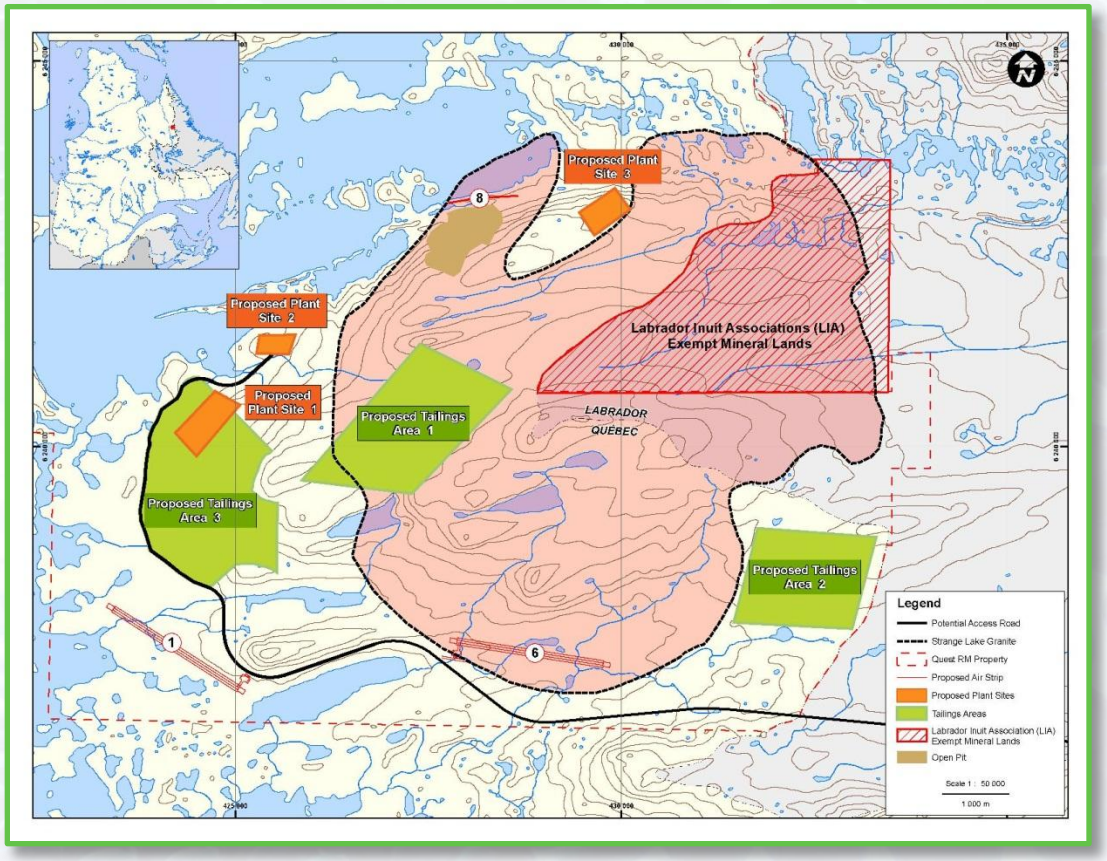
STRANGE LAKE PROJECT

2011 B Zone Drilling Showing Whittle Shell Outline

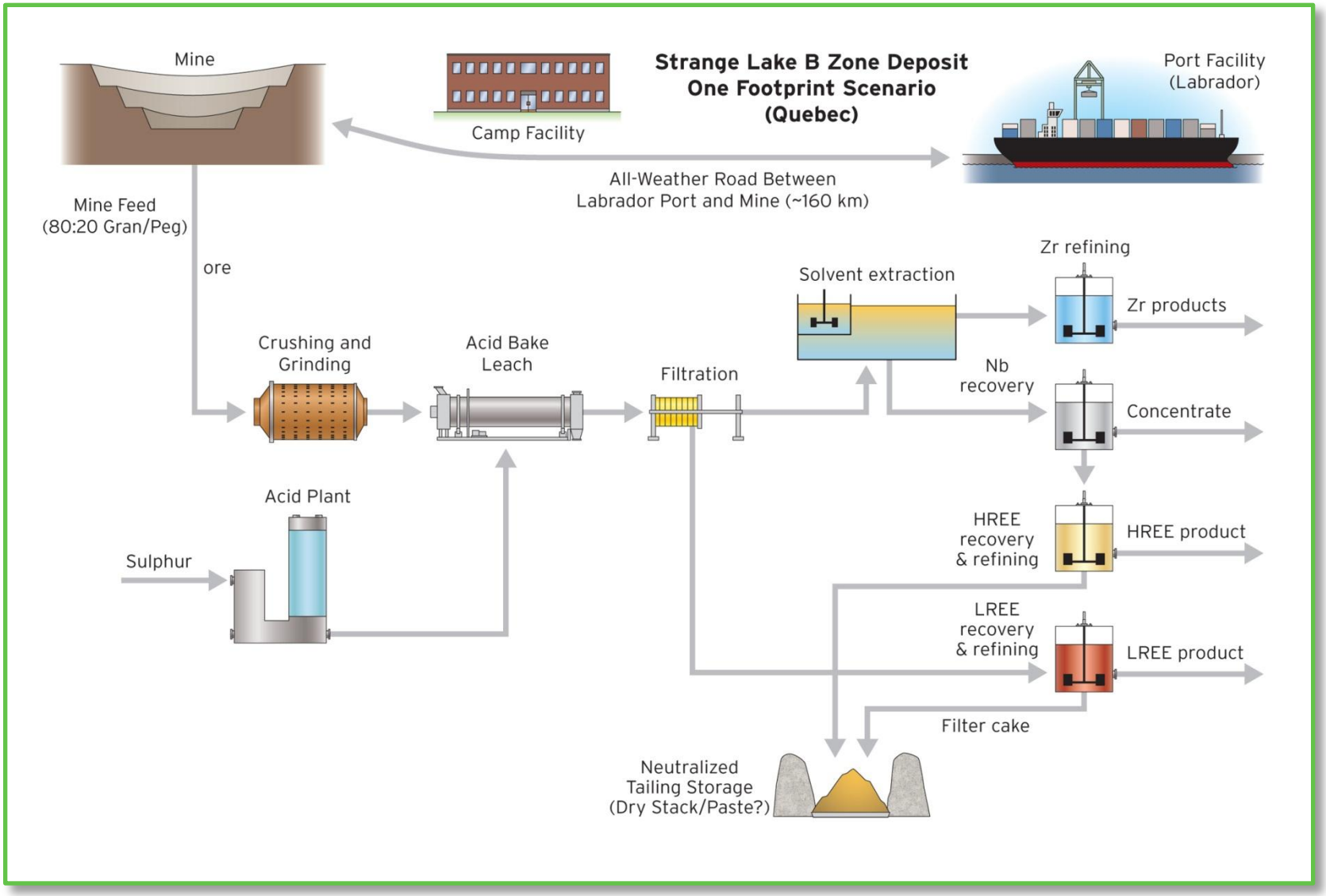


CONCEPTUAL SITE LAYOUT– JAN 2012

- **Political risk is low:** Quebec is one of the most mining friendly jurisdictions while Newfoundland and Labrador encourage mine development
- **QRM may benefit from stimulus and infrastructure support** under Quebec's "Plan du Nord"
- **Proposed air strips and potential access road provide strategic access to plant sites**



CONCEPTUAL MINE-MILL COMPLEX LAYOUT



STRANGE LAKE PROJECT 2012-2013 TIMELINES

Potential Leader in the Heavy Rare Earths Market

PROJECT MILESTONE	DELIVERY TIMELINE
Proven-Probable Reserve	Mid-2012
Completion of Metallurgical Flowsheet	Mid-2012
Startup of Pilot Mill Testing	Q4 2012
Delivery of Pre-Feasibility Study	H2 2012
Delivery of Feasibility Study	H2 2013
Exploration for High Grade Satellite Deposits on the Property (Blue Sky)	Winter-Summer 2012

Strange Lake deposit is a "Single-Source" solution to the projected heavy rare earth element supply deficit out to at least 2020

QRM Growth Chart

Capital Structure (MAR 9-12)

Stock Exchange Symbol	QRM (TSX- ; NYSE Amex)
Shares Outstanding – Basic	61.7 million
Shares Outstanding – FD	69.4 million
52-Week Trading Range	$1.75 - $8.88
Last Close	$3.00
Average Daily Trading Volume	450,000 shares
Market Capitalization – Basic	$175.1 million
Working Capital	$41.5 million

STRONG MANAGEMENT AND TECHNICAL TEAM

Over 250 years of Combined Operations Experience

Peter J. Cashin, P. Geo.

President & CEO, Director

Robert Leclerc

Chairman of the Board

Mark Schneiderman

Chief Financial Officer

Reno Pressacco, P. Geo.

Vice-President, Operations

George M. Potter

Technical Advisor, Director

Dr. Steven I. Zajac

Technical Advisor

Pierre Guay

Manager of Exploration

Mehdi Azodi

Director, Investor & Corporate Affairs

REASONS TO OWN QRM

A Leading Rare Earth Exploration and Development Story

- Experienced and respected management and technical team
- Strong REE market fundamentals
- Strange Lake poised to become a low-cost, world-class competitor in the Heavy REE Market
- Significant project pipeline

Thank You

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