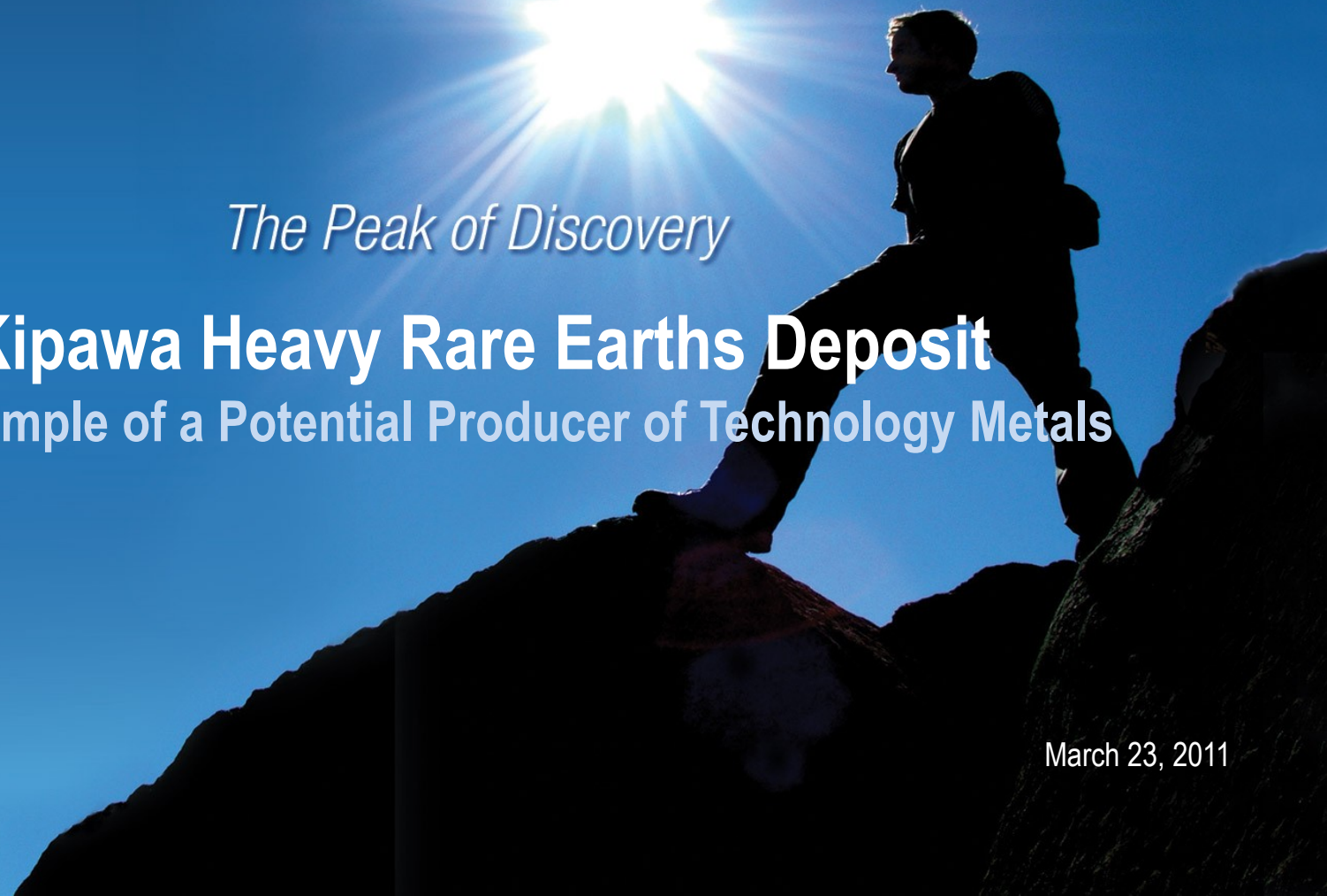
MATAMEC

The Peak of Discovery

Kipawa Heavy Rare Earths Deposit

An Example of a Potential Producer of Technology Metals



March 23, 2011

TSX-V: MAT

Disclaimer

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Developing the Kipawa Heavy Rare Earth Deposit

1. Technology Metals
2. Rare Earth-Bearing Minerals
3. Product Life Cycle
4. World Prices
5. 10 Steps to Commercial RE Production
   (Dudley Kingsnorth)
6. Sustainable Development

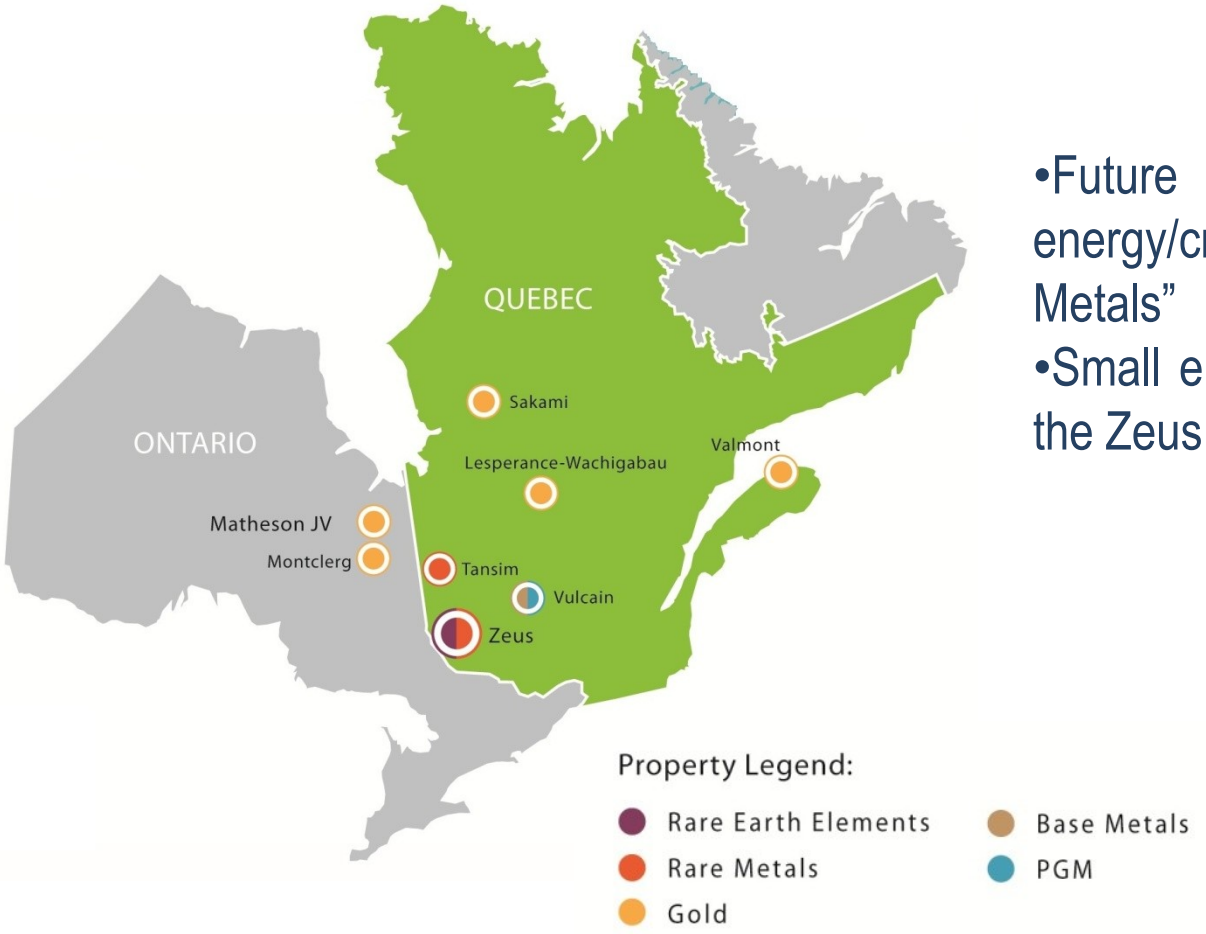
Developing the Kipawa Heavy Rare Earth Deposit

1. Technology Metals

Rare Earths
- Light
- Medium
- Heavy (forecast shortage for 2014)

Zirconium

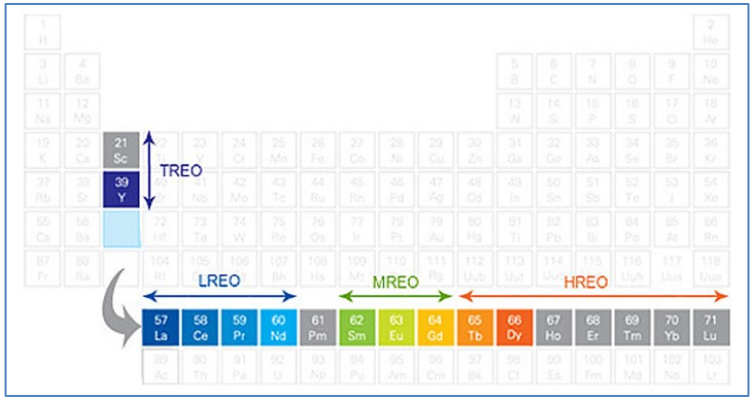
Future Producer of “Strategic Metals”



- Future producer of “Green/ energy/critical/technological Metals”
- Small environmental footprint on the Zeus property.

Rare Elements: Properties

Properties of Rare Earth Elements	
Reduces	Allows
Weight	Greater Efficiency
Emissions	Performance
Energy Consumption	Miniaturization
	Speed
	Durability
	Thermal Stability



Metals Used in Hybrid Cars

La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Y

Diesel Fuel Additive
- Cerium
- Lanthanum

UV cut glass
- Cerium

Liquid crystal displays
- Indium

HV electric motor & generator
- Neodymium
- Praseodymium
- Dysprosium
- Terbium

Battery
- Lithium
- Nickel
- Cobalt
- Lanthanum
- Cerium

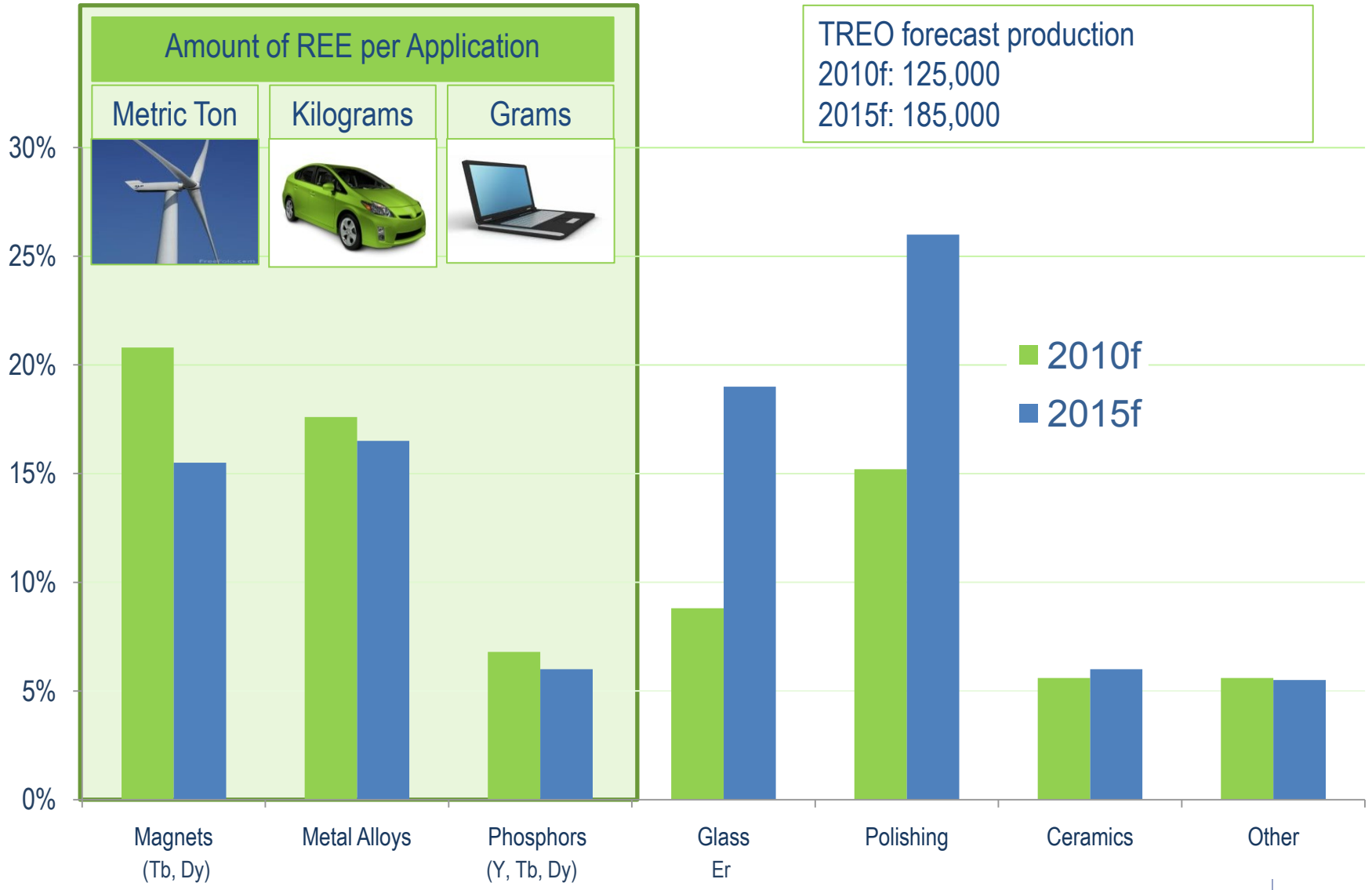
Catalytic converter
- Platinum
- Rhodium
- Palladium
- Zirconium
- Lanthanum
- Cerium

Iron & Steel Components
- Chrome
- Nickel
- Vanadium
- Niobium
- Molybdenum
- Manganese

Glass and Mirrors polishing powder
- Cerium
- Lanthanum

LED lights
- Gallium

REE Market: Matamec's Niche – Heavy Rare Earths



Source: Dudley J. Kingsnorth, IMCOA, November 2010

Developing the Kipawa Heavy Rare Earth Deposit

2. Rare Earth-Bearing Minerals

Minerals That Contain Rare Earths

Mineral	% REO	Mineral	% REO	Mineral	% REO
Aeschynite	36	Churchite	44	Loparite	36
Allanite	30	Eudialyte	10	Monazite	71
Anatase	3	Euxenite	40	Mosandrite	65
Ancylite	46	Fergusonite	47	Parisite	64
Apatite	19	Florencite	32	Samarskite	12
Bastnasite	76	Gadolinite	52	Synchisite	51
Brannerite	6	Huanghoite	38	Thalenite	63
Britholite	62	Hydroxylbastnasite	75	Xenotime	61
Cerianite	81	Kainosite	38	Yttrotantalite	24
Cheralite	5	South China Clays	0.03		

Minerals Producing Rare Earths

Developing the Kipawa Heavy Rare Earth Deposit

3. Product Life Cycle

Markets: Rare Earth Supply Chain

China
•China produces 97%:
•Sichuan Mianning Mining Co
•Jiangxi Copper
•Baotou Steel Rare Earth
•Sichuan Hanxin Mining

Japan
•Japan Industrial CoJapan Oil, Gas and Metals National Corp

Australia
•Lynas – exp. 2011

USA
•Molycorp – exp. 2012

Canada/UK
•GWMG

China
•CAS Key Laboratory of Rare Earth Chemistry and Physics
•Neo Materials

Japan
•Santoku,
•Shin Etsu

Japan
•Aichi Steel Corp

USA
•Allstar
•Quadrant
•Adams
•Bunting

•GM
•Ford
•Toyota
•Nissan
•Hyundai
•Mitsubishi
•Apple
•LG
•Samsung
•Etc.

Developing the Kipawa Heavy Rare Earth Deposit

4. Impact of pricing by the Chinese

Impact Of Chinese Controlled Market

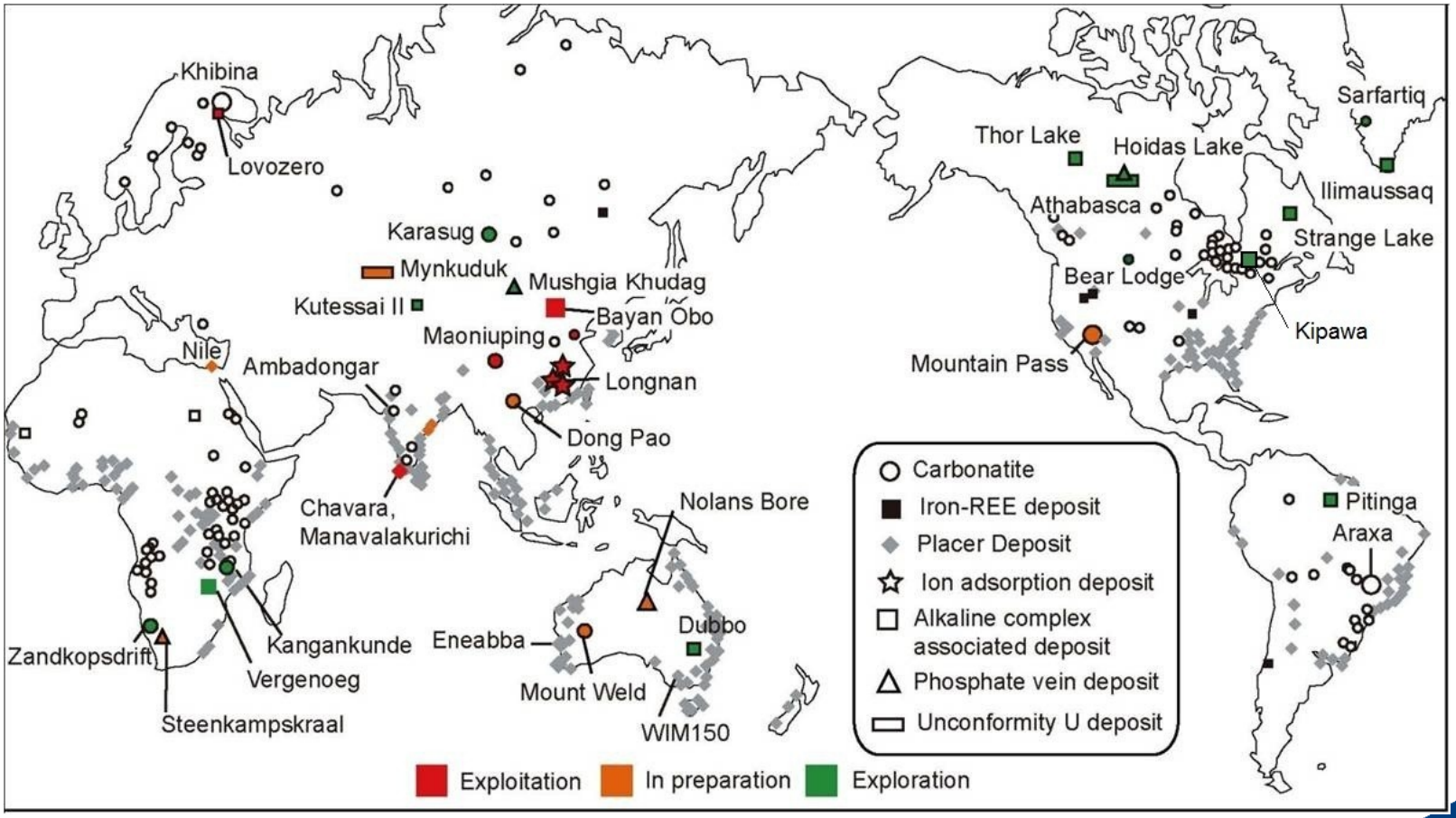
Higher Prices:

- Explosion of rare earth projects world wide
- Reduction of rare earth consumption in current and new applications
- Recycling of rare earths
- Substitution of rare earths in future technologies
- Elimination of rare earths in applications

Lower Prices:

- Increase of rare earth consumption in current and new applications
- New applications
- Research and development
- Opportunities

Rare Earths Projects for the 21st Century



Source: Yasushi Watanabe, AIST, Hong Kong, Nov. 9-11, 2010

Developing the Kipawa Heavy Rare Earth Deposit

5. 10 Steps to Commercial RE Production
(Dudley Kingsnorth)

10 Steps to Developing a Heavy Rare Earth Deposit:
(Dudley Kingsnorth)

Step 1: establish resource	2-5 years
Step 2: understand mineralogy	1-3 years
Step 3: scoping study	1-3 years
Step 4-6: pilot plant •Beneficiation, extraction & separation	2-10 years
Step 7: environmental approval	
Step 8: letters of intent	
Step 9: DFS & funding	2-4 years
Step10: engineering, procurement, construction	2-3 years
TOTAL AVERAGE	**9 years**

Matamec intends to complete these 10 steps in **7 years**

10 Steps to Developing a Heavy Rare Earth Deposit:
(Dudley Kingsnorth)

Step 1: establish resource	2-5 years

A Strategic Committee For Rare Earths

Advises Matamec's Board Of Directors

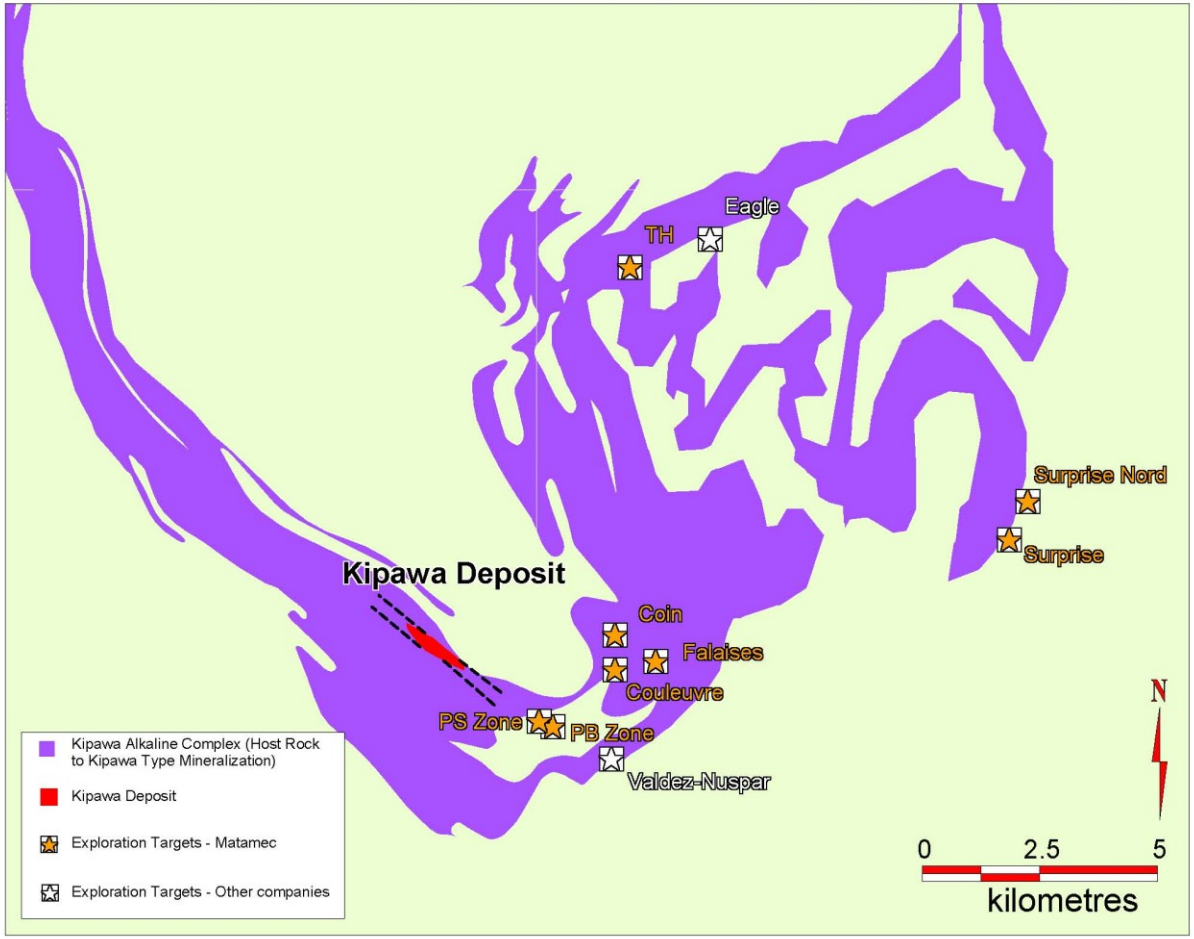
Anthony Mariano (2007)	A PhD geologist, worked on the identification of eudialyte and other rare earth-bearing minerals at the Kipawa Alkalic Complex	Has worked as a consultant for Matamec on the mineralogy of the Kipawa Complex since 2007.
Alex Knox (2007)	A MSc geologist with more than thirty four years of field experience in exploration	Has worked on the Kipawa deposit from 1985 to 1990. Since 2007, has advised Matamec on the exploration for rare-earths. He will be supervising the upcoming exploration program.
Les Heymann (2008)	A chemical engineer with over thirty five years of experience in the metallurgical and management ends of the mining industry. Has over eighteen years of experience of the production of rare earths	Since 2008, he has worked as a consultant to Matamec. Is currently directing Matamec's metallurgical testing program.
Raynald Vézina (2009)	A mining engineer with more than thirty-five years of experience in the mining industry.	Since 2008, he has advised Matamec regarding the development of the Kipawa deposit.

Zeus Property & HREE Kipawa Deposit - Location

The First Criteria for Industrial Mineral Deposits is Location Near Infrastructure

- In Quebec, a premier mine jurisdiction
- Near all weather roads
- Near railway
- Near mining towns with services
- Near electrical power grid

Zeus Property – Geology and Exploration Potential

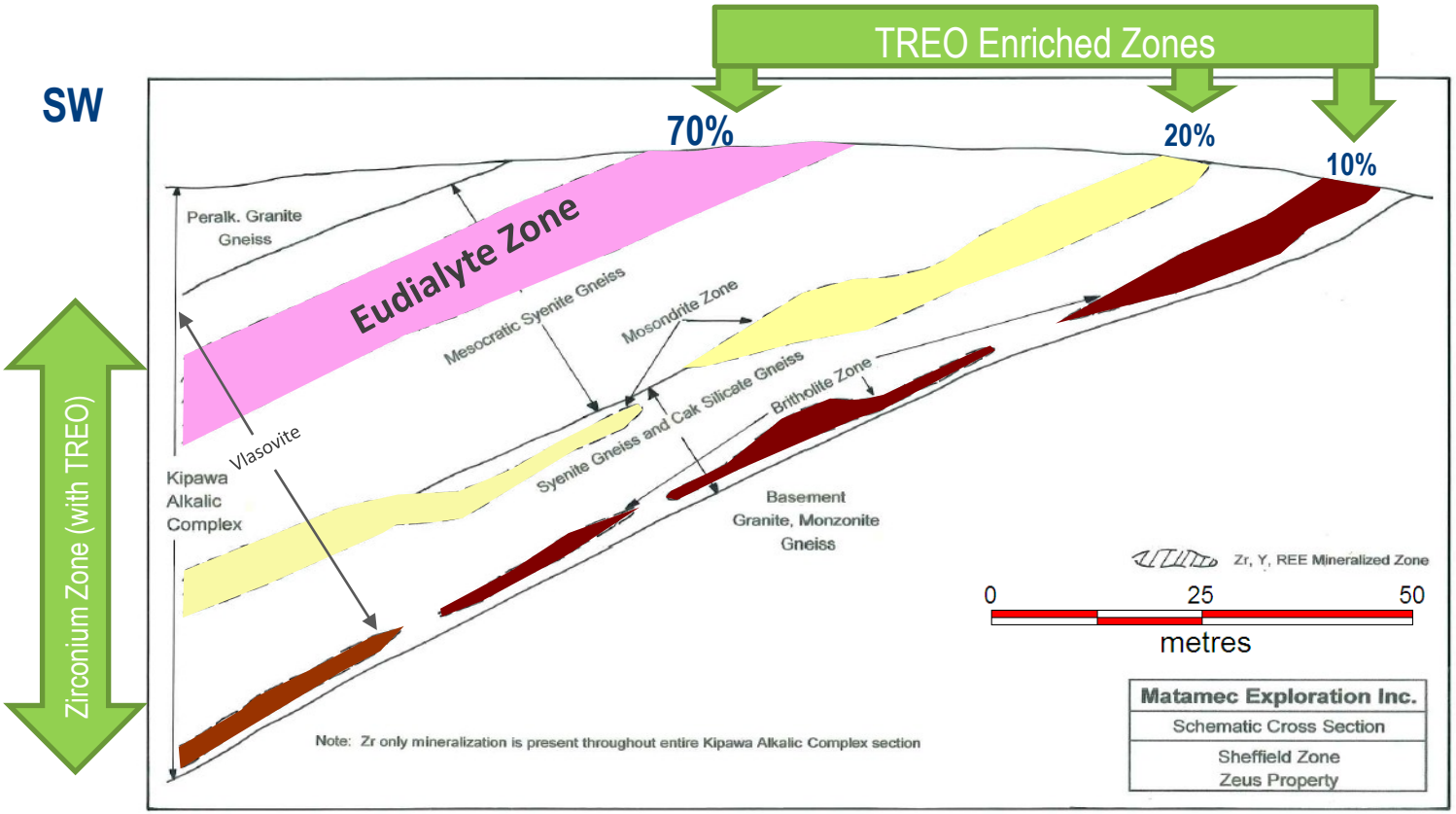


Kipawa Alkalic Complex

Potential Mineralized Horizon

Kipawa Deposit + Other Zones and Showings + Untested targets over 25 km strike on the property along the Kipawa Alkalic Complex

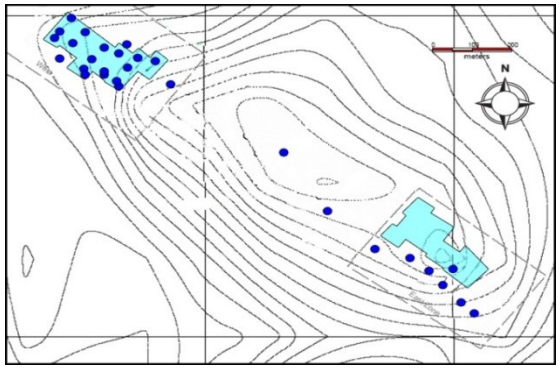
Kipawa Deposit Schematic Cross-Section



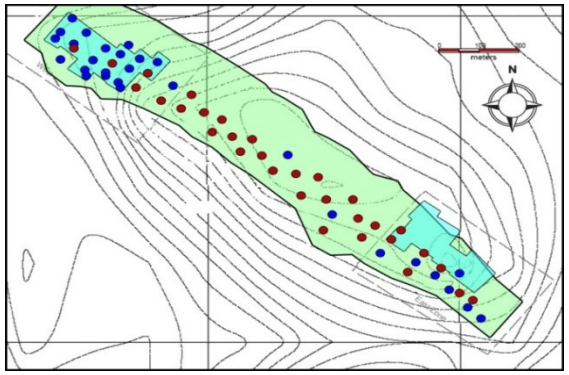
37% HREE/TREE

Heavy Rare Earth Enriched Zones: 0.62% TREO (cut-off of Dy_2O_3 0.016%) 4,920,000 Indicated tonnes + 4,260,000 Inferred tonnes (January 20, 2011, NI43-101)

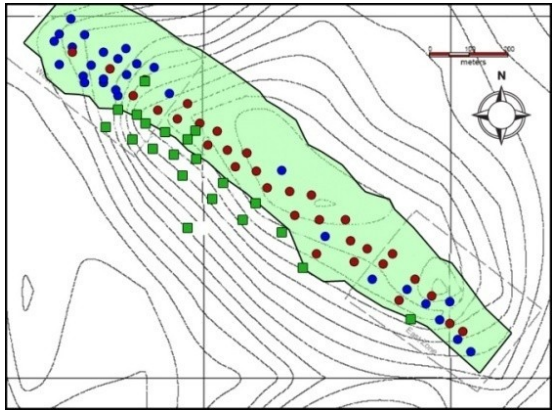
Kipawa Heavy Rare Earth Deposit - Growth



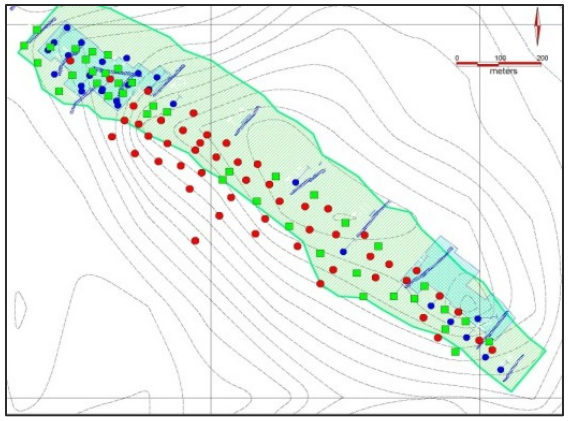
Historical Drill Holes – 2Mt (1990)



2009 Drill Program



2010 Drilling Program – Update Resource Estimate Completed: 50 Mt (January 20, 2011)



Winter 2011 - Infill Drilling Program Completed in February

NI 43-101
Ressources:
4.9 Mt @ 0.61% TREO Indicated (33% HREO+Y_2O_3)
4.3 Mt @ 0.63% TREO Infered (35% HREO+Y_2O_3)
+
30.1 Mt @ 0.98% ZrO_2 Indicated
20.9 Mt @ 1.00% ZrO_2 Infered

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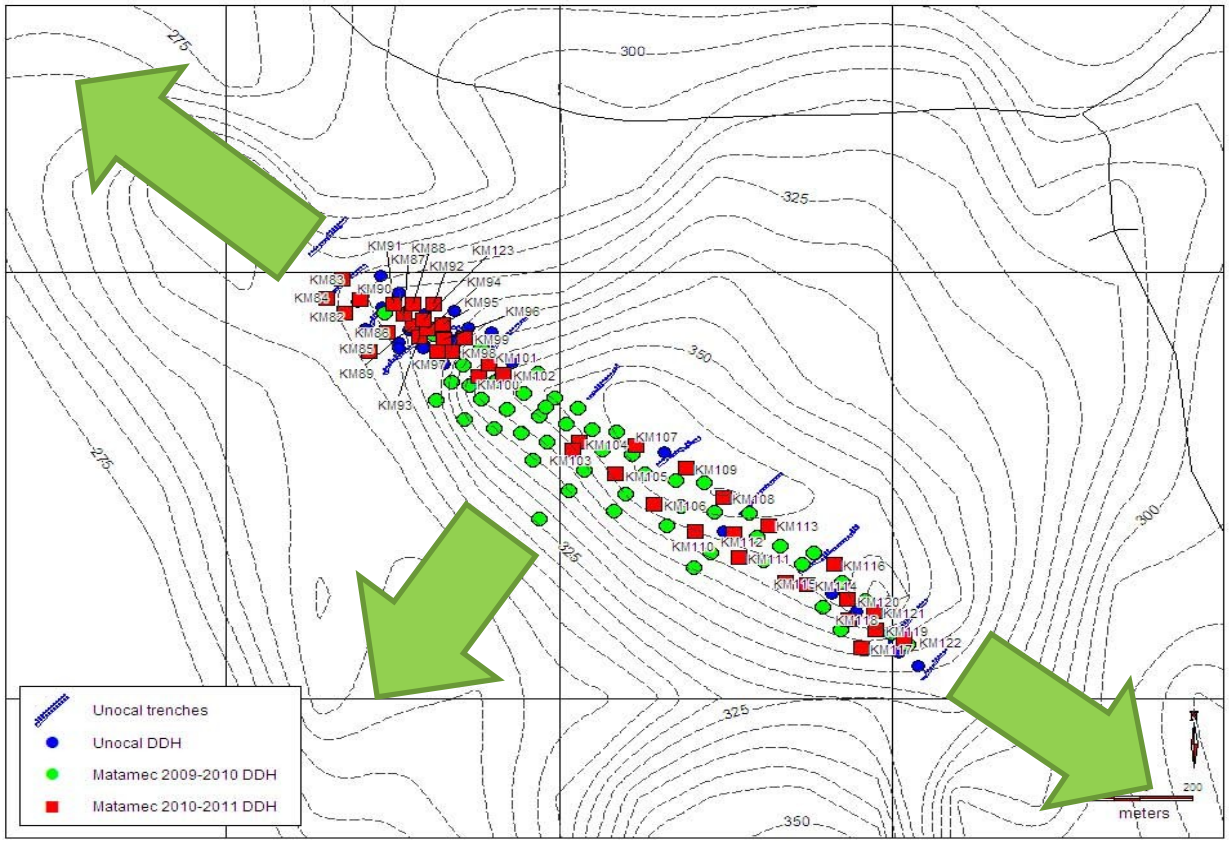
Resource Calculation: Showing Growth Potential



Winter 2011 - Infill Drilling Program Completed Feb.

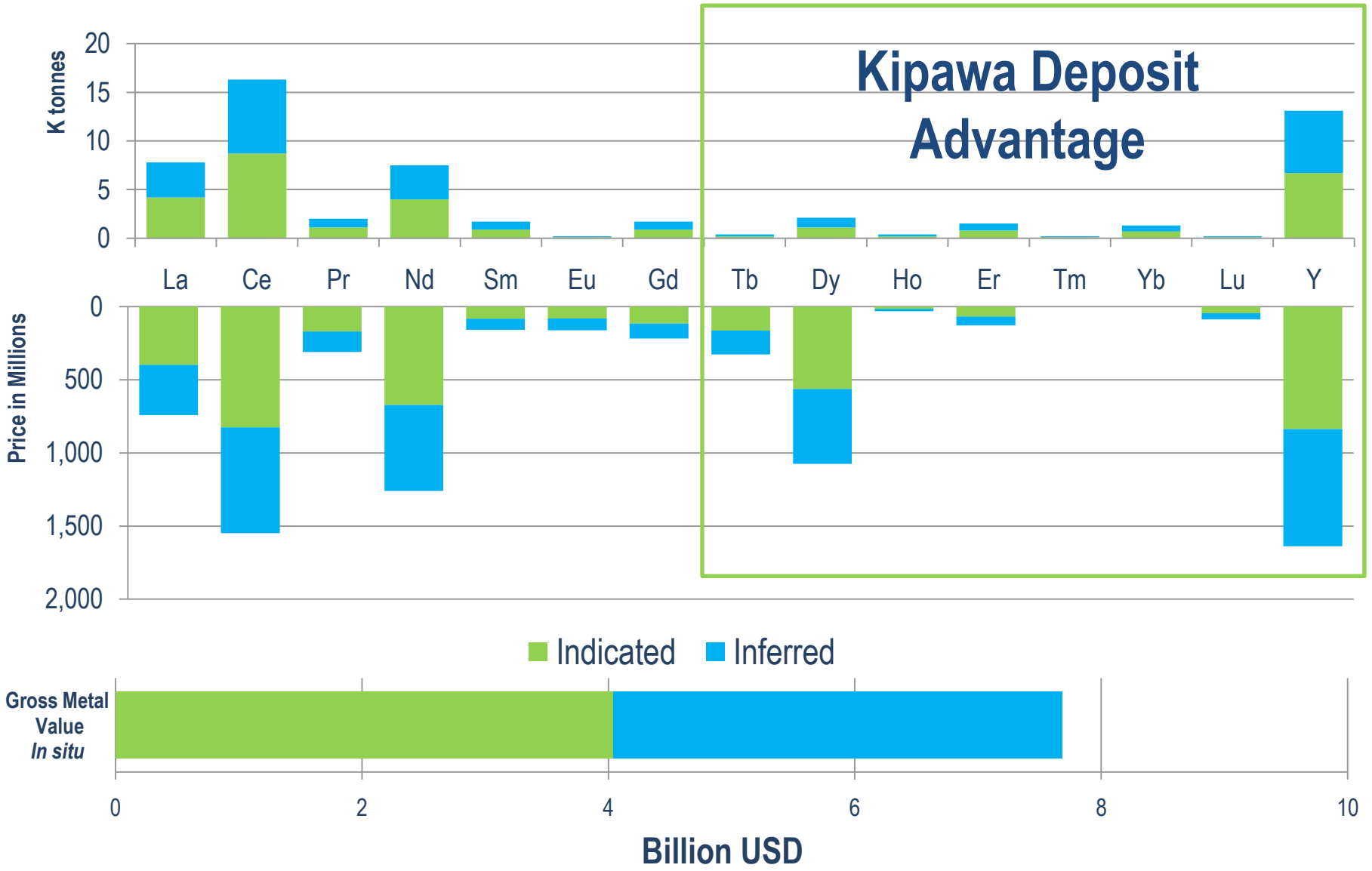
Spacing 50 X 50m
New Resource Estimate Coming this Spring

Deposit continuous over a distance of 1.45 kilometres

Deposit Open Laterally and at Depth

Indicated and Inferred NI 43-101 Resources:

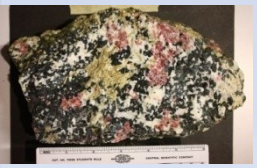
0.62% TREO (cut-off of Dy_2O_3 @ 0.016%)



10 Steps to Developing a Heavy Rare Earth Deposit:
(Dudley Kingsnorth)

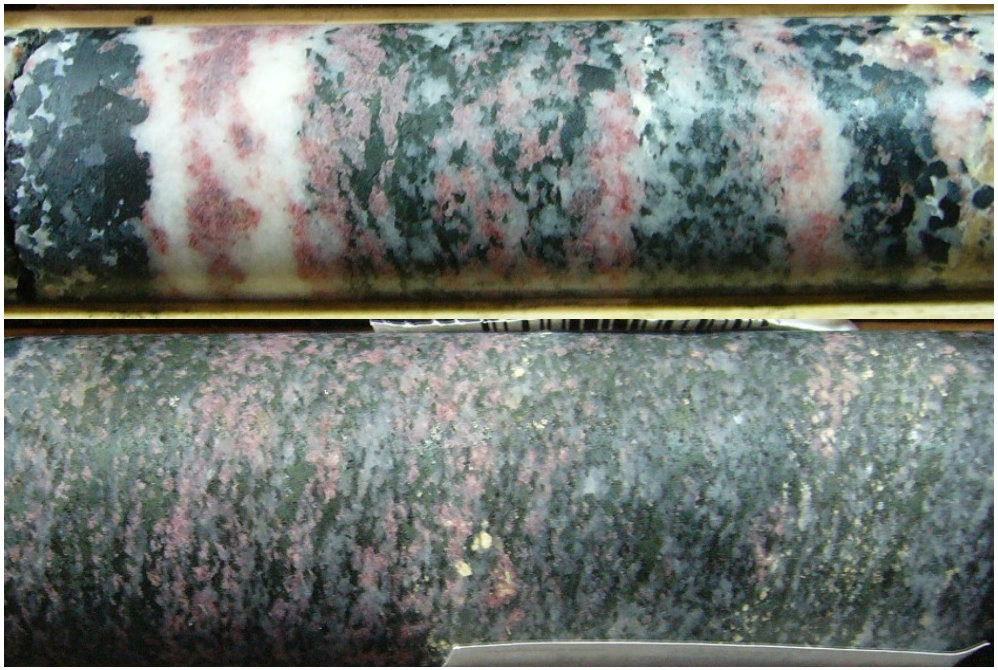
Step 2: understand mineralogy	1-3 years

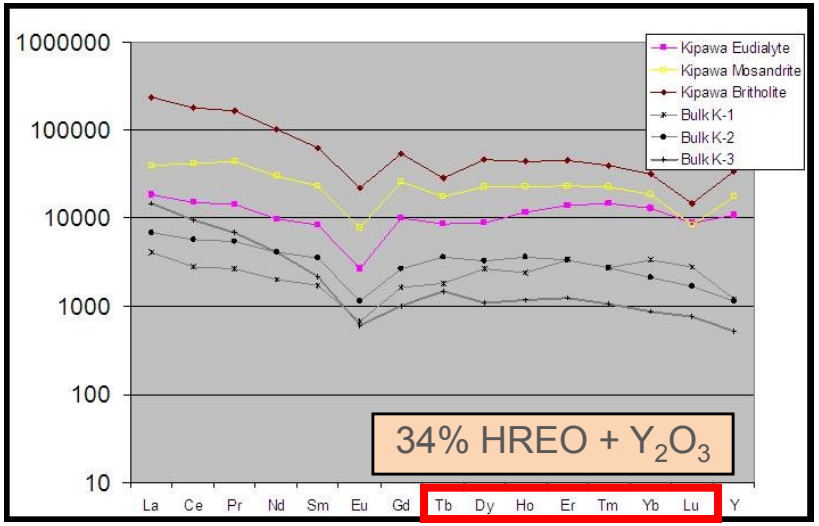
Kipawa Deposit: Mineralogy

Minerals (Kipawa Deposit)	Mineral Formulas	Elements	REO Wt % (Kogel & al., 2006)
 Eudialyte	$Na_{15}(Y,Ca)_6Fe_6Zr_3(Si_{26},0_{73})(O,OH,H_2O)^5$	Zr, Y, HREE	10 %
 Mosandrite/ Yttro-titanite	$NaCa_2(Ca,Ce,Y)^4Ti(Si_2O_7)^2F_5$ and $(Y,Ca)TiSiO_5$	Y, HREE, Ti?	45 % (Mosandrite)
 Britholite	$(Ce,Y,Ca)^5(SiO_4,PO_4)^3(OH,F)$	Y, HREE, P_2O_5	62 %
 Vlasovite	$Na_2ZrSi_4O_{11}$	Soluble Zr (?)	

- Silicates
- 4 potentially economical out of more than two dozens described at Kipawa

Mineralogy: Eudialyte





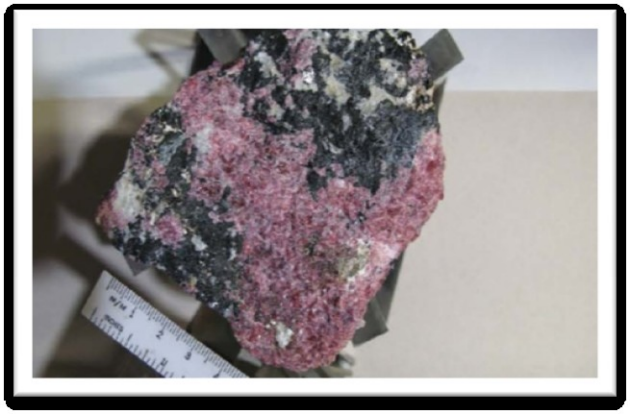
Heavy REE

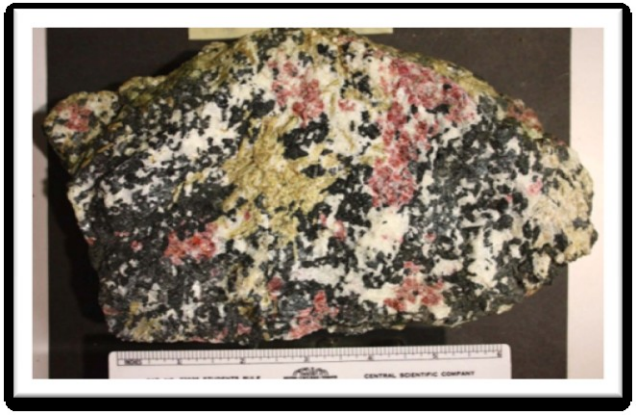
- Sodic Y-Fe-Zr silicate
- Source of HREE
- Average 2 to 10 mm dia.
- Associated with more mafic syenite

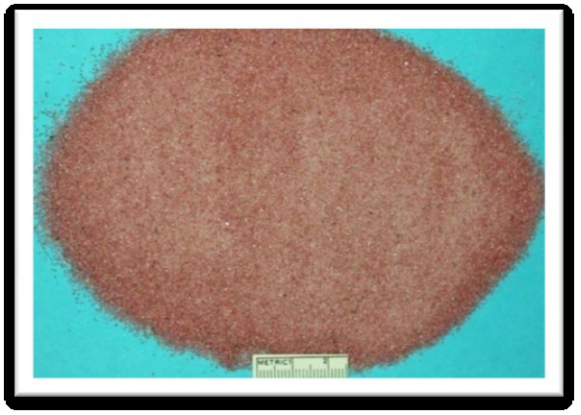
10 Steps to Developing a Heavy Rare Earth Deposit:
(Dudley Kingsnorth)

Step 3: Scoping Study	1-3 years

Kipawa Deposit: Ore Processing







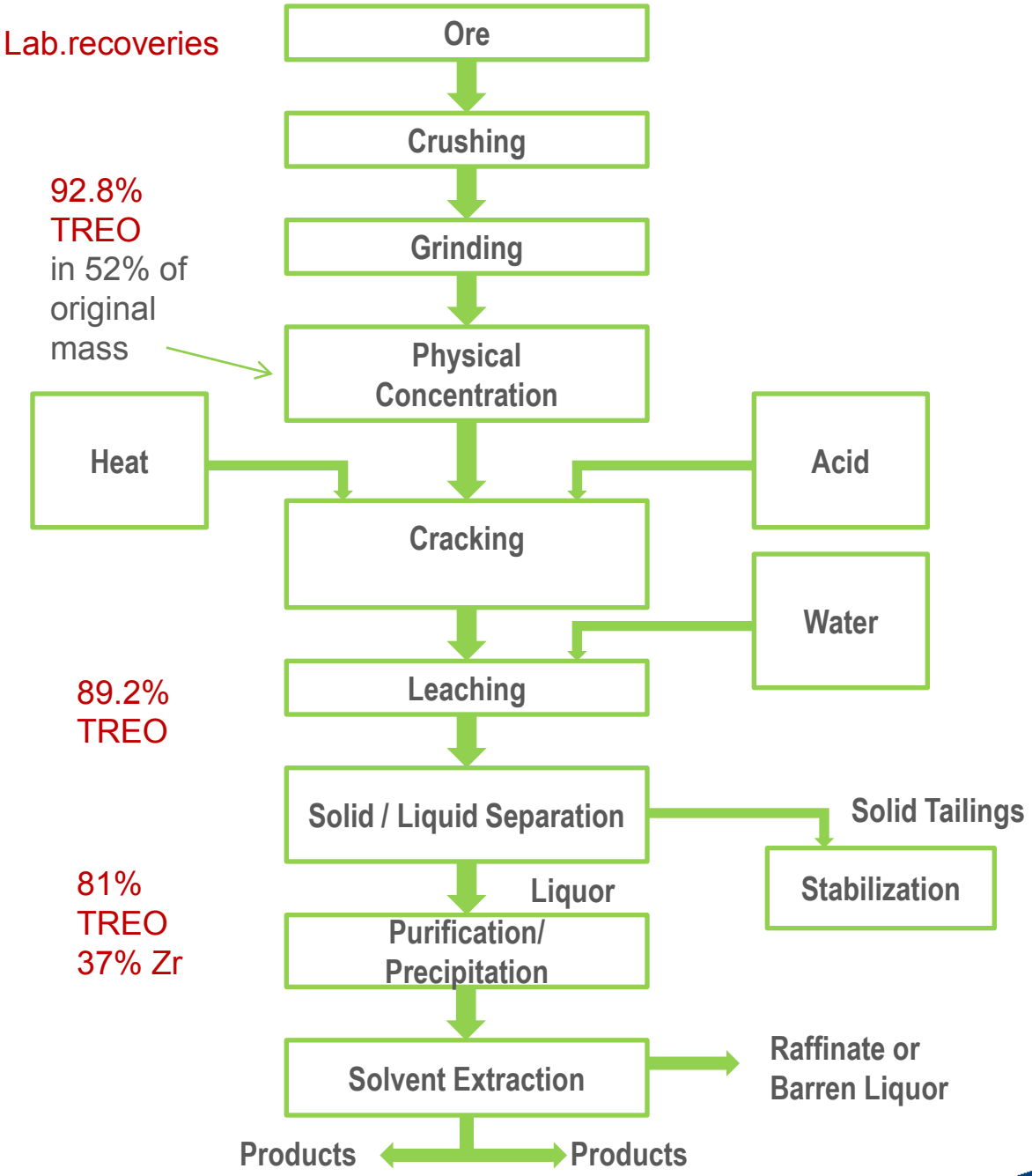
Unique in the world: simple mineralogy

Recovery of 89.2% of TREO to be found in eudialyte concentrate (52% of original volume)

less volume to leach = low cost

Because medium grained, well-crystallized and not intergrown

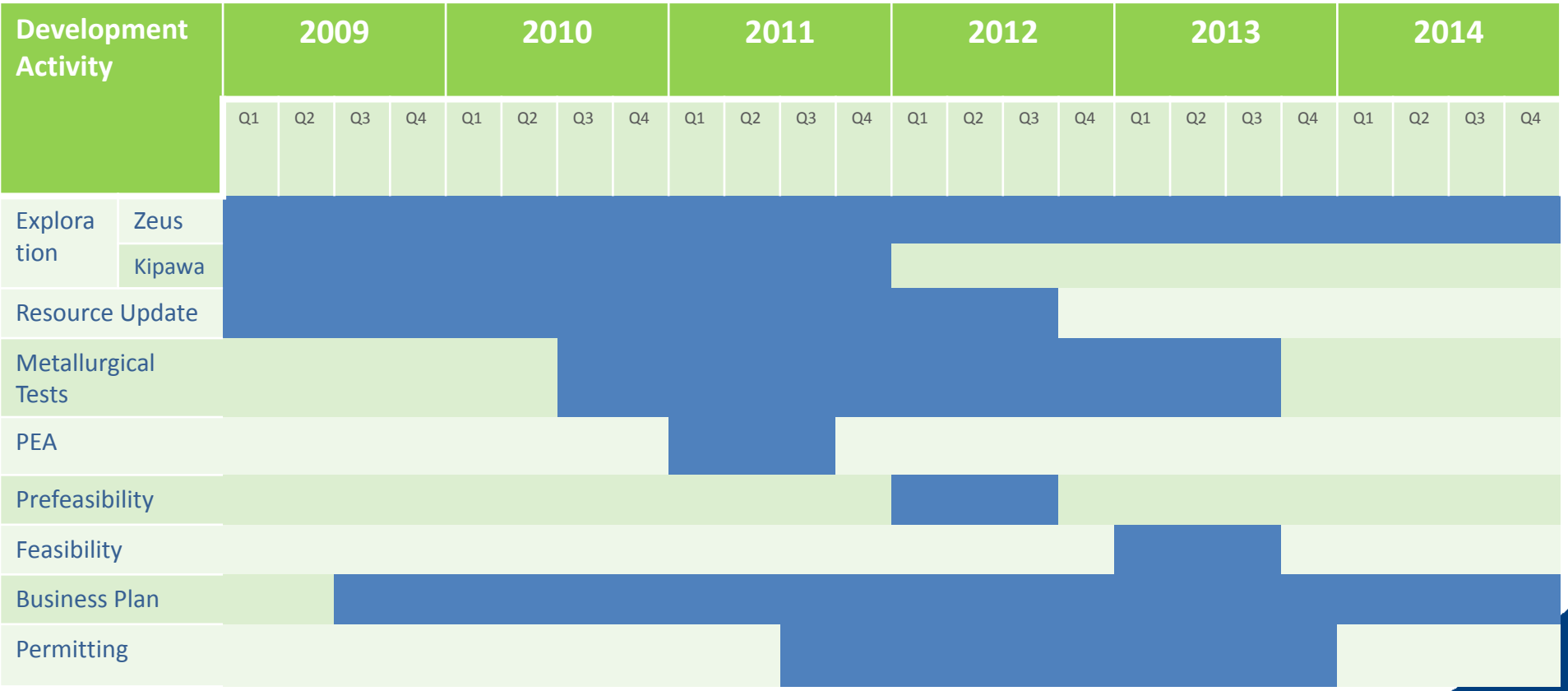
Kipawa Deposit Rare Earth Ore Processing



The physical characteristics of the Kipawa ore allow for low-cost chemical extraction, which gives it a competitive edge against current rare earth producers

Press releases
-January 20,2011
-March 8, 2011

Project Timeline



Kipawa REE-Y-Zr Deposit: 3 Year Plan - Budget

Cost and Schedule of Future Work				
	2011	2012	2013	
1- Geology	$1.970M	$3.630M	$1.500M	
2- Engineering Studies including Mining - PEA - Pre-Feasibility - Feasibility	$0.300M	$1.100M	$3.850M	
3- Mineral Processing and Metallurgy - Specific Testwork - Continuous Testwork - Pilot Plant - Construction	$1.000M	$2.500M	$3.750M	
4- Environment and Permitting	$0.400M	$0.600M	$0.600M	
5- Relation with the Community	$0.150M	$0.500M	$0.850M	
6- Market Study	Incl. in the Eng. Studies	-	-	
Total:	$3.820M	$8.330M	$10.550M	**$22.700M**

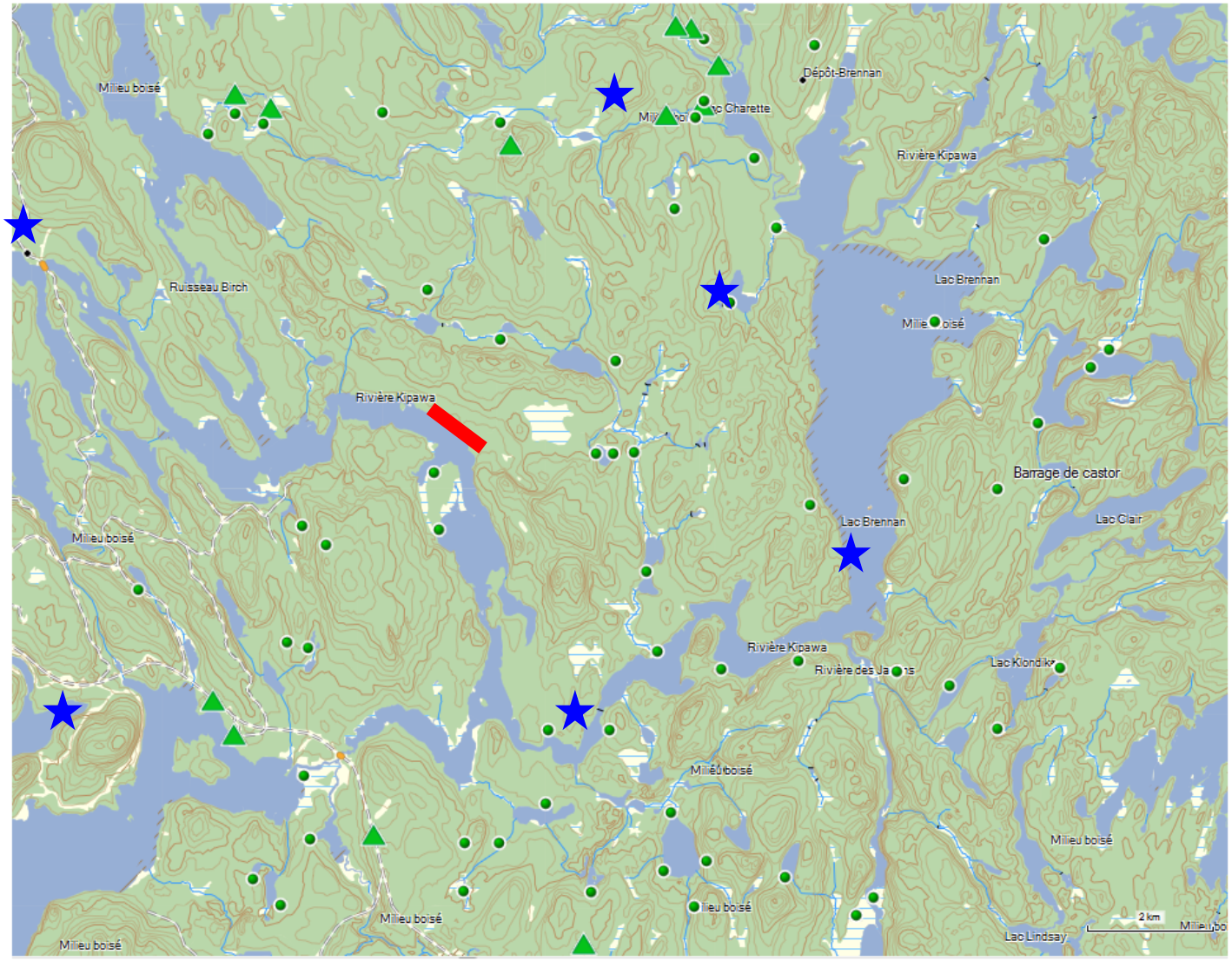
Five Deposits in Alkalic Complexes

REE Company	Heavy REE Deposits	Last Development stage Completed	Capital Out-standing	Share Value ($) (Mar. 4)	Market Capital
Avalon (T: AVL)	Lake Zone	Pre-Feasibility (July 2010)	93.338M	7.12	664M$
Quest (V: QRM)	B Zone	PEA Study (Sept 2010)	58.358M	5.80	338M$
Matamec (V:MAT)	Kipawa	Resource Calculation: Indicated and Inferred (January 20, 2011)	116.465M	0.485	56M$
Tasman (V: TSM)	Norra Karr	Resource Calculation: Inferred (Nov. 30, 2010) – No Met.	56.636M	5.00	283M$
UCORE (V: UCU)	Bokan-Dotson Ridge	Resource Calculation Inferred (March 7, 2011) – No Met.	142.902M	1.10	157M$

10 Steps to Developing a Heavy Rare Earth Deposit:
(Dudley Kingsnorth)

Step 7: Environmental approval

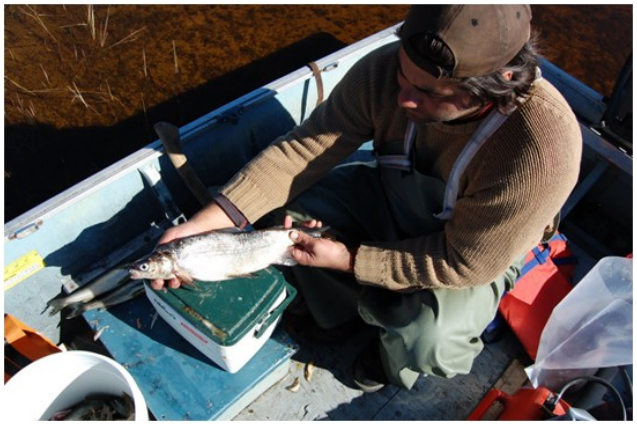
Environmental Impact Study: Some Areas of Interest



Fish
Black Bear
Moose

Kipawa Deposit

Small Environmental Footprint: Fauna



Developing the Kipawa HRE deposit

6. Sustainable Development

Sustainable Development

- Environmental protection programs
- Small environmental footprint
- Implication of the local communities from the beginning
- Preferential hiring policy for locals

Summary

Low Cost

- One of the few known HREO resources in the world with well understood and simple low cost processing solution
- Mining friendly location with low cost electricity
- Excellent access to infrastructure and mining services
- Open pit , low cost mining

High Value

- Addresses worsening shortage of REE and HREE supply
- Highly favourable exploration potential (chance of finding more)
- Fits demand

Timely

- Advanced discussions with end-users
- End of Chinese export of heavy rare earths in 2014

Undervalued Compared with its Peers

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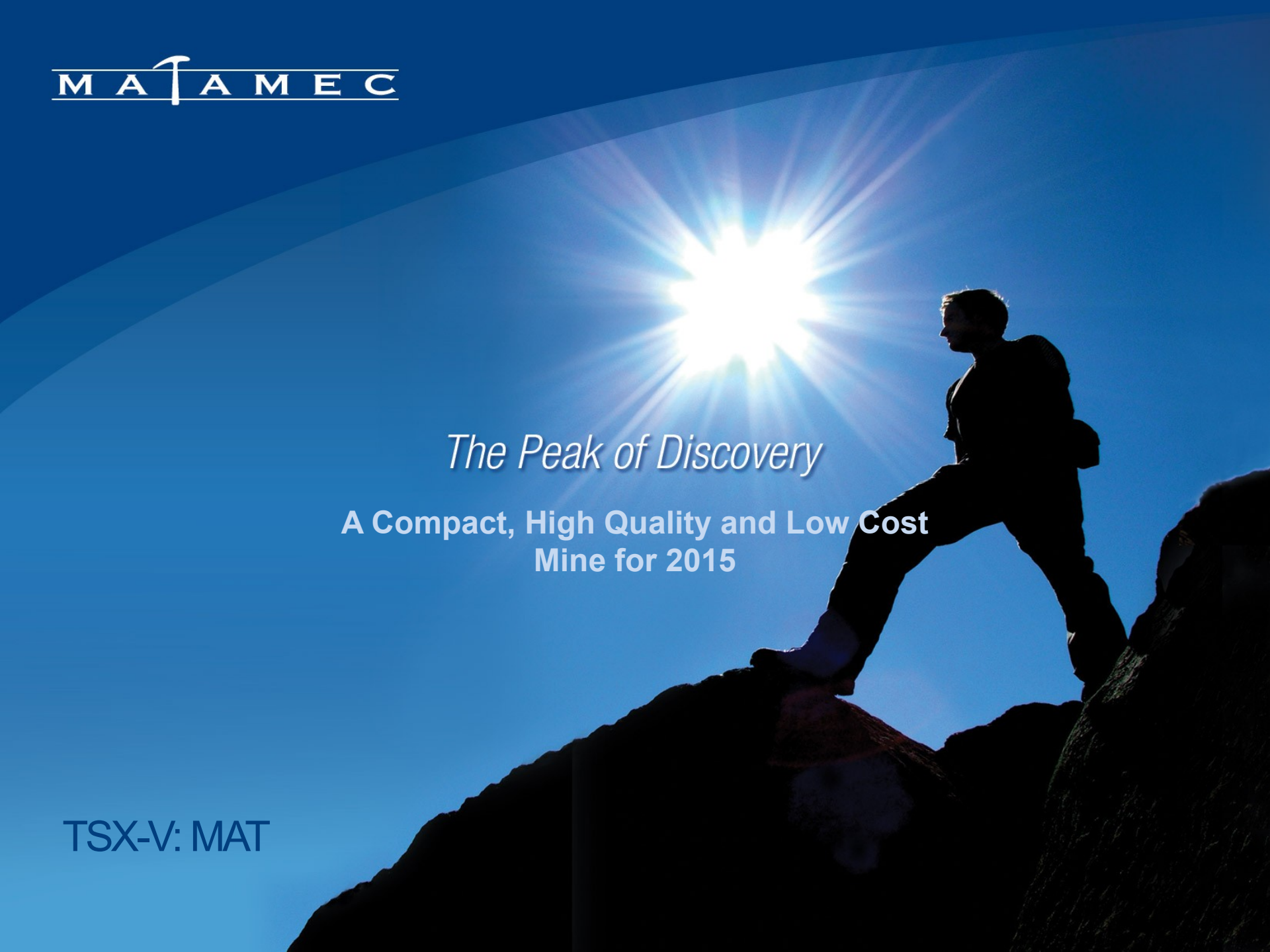

The Peak of Discovery

A Compact, High Quality and Low Cost Mine for 2015

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