# **REE** Rare Earth Elements





IAMGOLD.COM | TSX: IMG | NYSE: IAG

#### **The Value of REEs**

Jeffery Snow SVP & General Counsel

**Pierre Pelletier** VP, Metallurgy

**Stephen Eddy** Director, Corporate Development

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## **Cautionary Statement**

This presentation contains forward-looking statements. All statements, other than of historical fact, that address activities, events or developments that the Company believes, expects or anticipates will or may occur in the future (including, without limitation, statements regarding expected, estimated or planned gold and niobium production, cash costs, margin expansion, capital expenditures and exploration expenditures and statements regarding the estimation of mineral resources, exploration results, potential mineralization, potential mineral resources and mineral reserves) are forward-looking statements. Forward-looking statements are generally identifiable by use of the words "may", "will", "should", "continue", "expect", "anticipate", "estimate", "believe", "intend", "plan" or "project" or the negative of these words or other variations on these words or comparable terminology. Forward-looking statements are subject to a number of risks and uncertainties, many of which are beyond the Company's ability to control or predict, that may cause the actual results of the Company to differ materially from those discussed in the forward-looking statements. Factors that could cause actual results or events to differ materially from current expectations include, among other things, without limitation, failure to meet expected, estimated or planned gold and niobium production, cash costs, margin expansion, capital expenditures and exploration expenditures and failure to establish estimated mineral resources, the possibility that future exploration results will not be consistent with the Company's expectations, changes in world gold markets and other risks disclosed in IAMGOLD's most recent Form 40-F/Annual Information Form on file with the United States Securities and Exchange Commission and Canadian provincial securities regulatory authorities. Any forward-looking statement speaks only as of the date on which it is made and, except as may be required by applicable securities laws, the Company disclaims any intent or obligation to update any forward-looking statement.

The United States Securities and Exchange Commission (the "SEC") permits mining companies, in their filings with the SEC, to disclose only those mineral deposits that a company can economically and legally extract or produce. We use certain terms in this presentation, such as "mineral resources", that the SEC guidelines strictly prohibit us from including in our filings with the SEC. U.S. investors are urged to consider closely the disclosure in the IAMGOLD Annual Report on Form 40-F. A copy of the most recent Form 40-F is available to shareholders, free of charge, upon written request addressed to the Investor Relations Department.

Total Resources includes all categories of resources unless indicated otherwise.

All currency numbers are in US\$ unless otherwise stated.



La

Ce

## What are Rare Earth Elements?



- Group of 17 chemical elements in the periodic table
- Referred to as "rare" because they are not commonly found in commercially viable concentrations
- 2 main subgroups:
  - i) Light rare earths (LREE) andii) Heavy rare earths (HREE)
- REE mineral deposits are usually rich in LREE or HREE, but rarely contain both in significant quantities

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Li	Be	е											В	С	Ν	0	F	Ne
Na	a M	g											Al	Si	Ρ	S	Cl	Ar
К	Ca	а	Sc	Ti	۷	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	) Sr	r	Y	Zr	Nb	Mo	Тс	Ru	Rh	Pd	Ag	Cd	ln	Sn	Sb	Те	Ι	Xe
Cs	s Ba	а	La-Lu	Hf	Та	w	Re	Os	lr	Pt	Au	Hg	ΤI	Pb	Bi	Ро	At	Rn
Fr	Ra	a	Ac-Lr	Rf	Db	Sg	Bh	Hs	Mt									_
lanti	nanide	e se	eries	La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Тb	Dy	Ho	Er	Tm	Yb	Lu
a	tinide	e se	eries	Ac	Th	Ра	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr

### VITAL IN CLEAN ENERGY AND HIGH TECHNOLOGY MARKETS



## **REE Properties and Applications**



- (La) Lanthanum
- (Ce) Cerium
- (Pr) Praseodymium
- (Nd) Neodymium
- (Sm) Samarium

#### **HEAVY RARE EARTHS**

- (Eu) Europium
- (Gd) Gadolinium
- (Tb) Terbium
- (Dy) Dysprosium
- (Ho) Holmium
- (Er) Erbium
- (Tm) Thulium
- (Yb) Ytterbium
- (Lu) Lutetium
- (Y) Yttrium\*

#### PROPERTIES

- Silvery-white/gray in colour
- High luster but tarnish readily in air
- Most REE compounds are strongly paramagnetic
- Catalytic, chemical, electrical, metallurgical, nuclear, magnetic and optical properties
- High electrical conductivity
- Many REE fluoresce strongly under UV light
- High melting and boiling points
- Reacts with dilute acid to release
   H<sub>2</sub> rapidly at room temperature
- Reacts with H<sub>2</sub>O to liberate H<sub>2</sub>, slowly when cold/quickly upon heating

#### APPLICATIONS

Gd

Ce

Nd

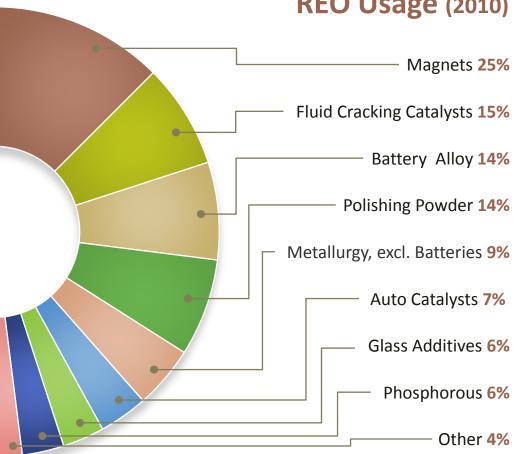


\*Yttrium is lighter than the light rare earths, but included in the heavy rare earth group because of its chemical and physical associations with heavy rare earths in natural deposits



## **Rare Earths are Integral to a** Wide Range of Growing Markets





#### **REO Usage** (2010)

Application	Estimated Compound Annual Growth Rate 2010-2015
Phosphors	30%
Rechargeable Batteries	18%
Permanent Magnets	16%
Polishing Powder	15%
Auto Catalysts	8%
Fluid Cracking Catalysts	6%
Glass Additives	4%

Source: CIBC World Markets, March, 2011



## **REE Plays a Key Role in the Clean Energy Sector**



Hybrid and electric cars can contain 20–25 pounds<sup>1</sup> of rare earths (Twice the amount found in standard gasoline cars) **UV Cut Glass** Cerium Glass and Mirrors **Polishing Powder** Cerium **Diesel Fuel Additive** LCD Screen Cerium Europium Lanthanum **Yittrium** Hybrid NIMH Cerium Lanthanum **Component Sensors** Cerium **Yttrium** Catalytic Converter Hybrid Electric Motor Cerium/Zirconium and Generator Lanthanum Neodymium Praseodymium 25+ Electric Motors throughout Vehicle Headlight **Dysprosium Nd Magnets** Neodymium Terbium

<sup>1</sup>Source: "The Race for Rare Metals", Globe and Mail, July 16, 2011

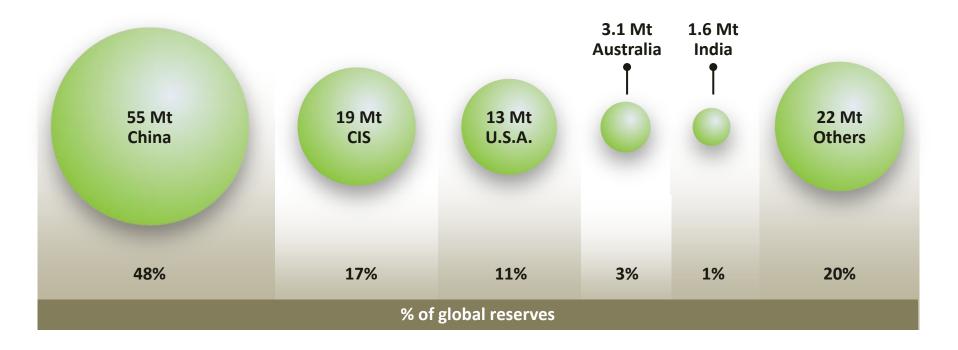


# Global Supply of Rare Earth Elements REE

**Rare Earth Elements** 

### 2011 Global Rare Earth Reserves<sup>1</sup> (E) 114 Million Tonnes

**IAMGOLD**<sup>®</sup>



<sup>1</sup>Source: "The not-so-rare issue with rare-earth investing", Globe and Mail, Mar. 13, 2012 | Projects in China may be underestimated

China accounts for 48% reserves

## **The China Factor**



#### China accounts for 95% of global production Bayan Obo deposit (Mongolia) supplies >70% of China's LREE (ie. 46% China's production and 42% globally) China In 2010, China **Rare Earth** forecasts drop **Prices** reduced Demand prices surged in production export quota to record highs dropped restored from Bayon

in 2010

Source: "The Rare Earths Race, Identifying the Formula One Cars", Dundee Capital Markets, March 5, 2012

by 40%



**Obo deposit** 

## **Growing Gap between Supply and Demand**





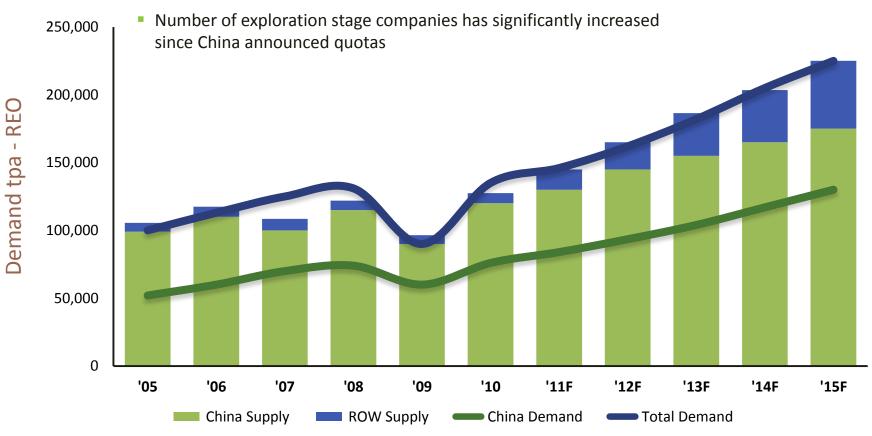
Source: D. Kingsworth IMCOA 2011



## Race is on to Fill the Growing Gap



#### **Global Rare Earths Supply and Demand 2005-2015**



Source: D. Kingsworth IMCOA 2011



## **Critical Rare Earth Elements**



- Heavy rare earth oxides (HREO) are less commonly occurring
  - Significantly more expensive
  - Higher risk of future shortage
- U.S. Department of Energy forecasts higher growth in demand for critical REEs
- Extent of shortage dependent on success of REE exploration projects



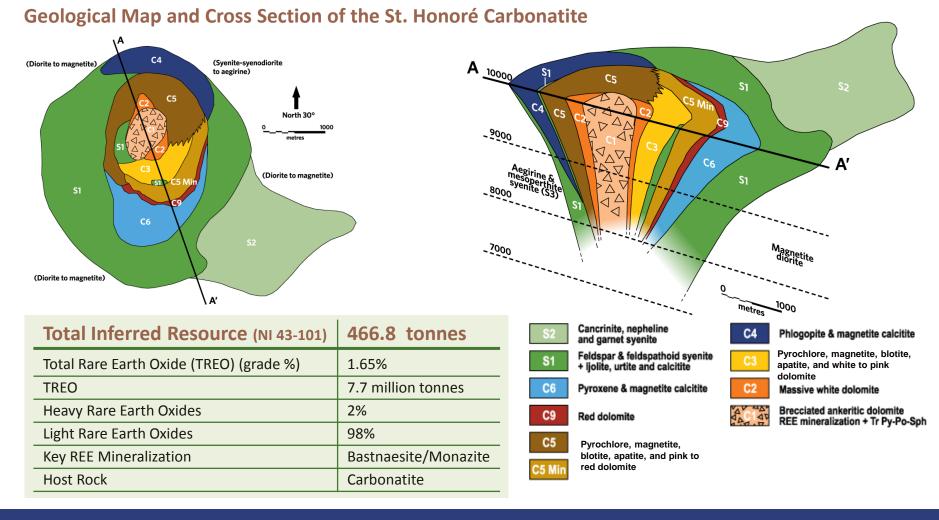
	Symbol	Name	Critial Rare Earth Oxides (CREO)	Oversupply Risk	IMG's REE
	Ce	Cerium		High	47.9%
	La	Lanthanum		High	24.5%
	Nd	Neodymium	*	Low	18.4%
	Pr	Praseodymium		Low	5.3%
	Sm	Samarium		High	2.1%
	Gd	Gadolinum		Low	1.0%
	Eu	Europium	*	Low	0.4%
	Dy	Dysrosium	*	Low	0.3%
	Tb	Terbium	*	Low	0.1%
	Но	Holmium		n/a	
	Er	Erbium		n/a	
	Tm	Thulium		n/a	
	Yb	Ytterbium		n/a	
	Lu	Lutetium		n/a	
	Y	Yttrium	*	Low	

 $IAMGOLD^*$  Integral to fastest growing green energy & high tech sectors 1

.REO

## **IAMGOLD's REE Resource**

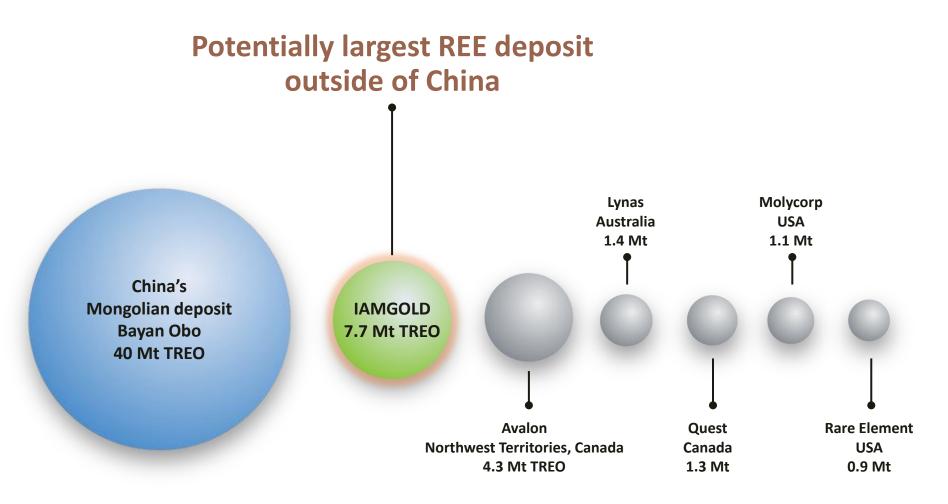






## Major REO Projects





Source: Company reports



### IAMGOLD's Composition of REE Resource

REE Mineral Resources by Grade Groups					Light REO						Heavy REO			
Grade Groups	Tonnage	2		Ce <sub>2</sub> O <sub>3</sub>	La <sub>2</sub> O <sub>3</sub>	Nd <sub>2</sub> O <sub>3</sub> *	Pr <sub>2</sub> O <sub>3</sub>	Sm <sub>2</sub> O <sub>3</sub>	Gd <sub>2</sub> O <sub>3</sub>	Eu <sub>2</sub> O <sub>3</sub> *	Dy <sub>2</sub> O <sub>3</sub> *	Tb <sub>2</sub> O <sub>3</sub> *	<i>c c c</i>	
% TREO	Million Tonnes	% TREO	ppm HREO	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
> 2.50	13.2	2.93	550	14,020	7,173	5,384	1,538	603	284	124.0	81.3	22.2	ime	
> 2.00 to 2.50	80.0	2.16	407	10,359	5,300	3,978	1,137	445	210	91.6	60.1	16.4	disclaimar	
> 1.75 to 2.00	123.8	1.87	352	8,961	4,585	3,441	983	385	182	79.3	52.0	14.2		
> 1.50 to 1.75	98.0	1.64	308	7,845	4,014	3,013	861	337	159	69.4	45.5	12.4	; <u>+</u>	
> 1.00 to 1.50	99.2	1.26	236	6,020	3,080	2,312	661	259	122	53.3	34.9	9.5		
0.5 to 1.00	52.6	0.81	153	3,890	1,990	1,494	427	167	79	34.4	22.6	6.2		
Total/ Average Grade	466.8	1.65	311	7,913	4,048	3,039	868	340	161	70.0	45.9	12.5		
	Niobec Signa		1.88%	47.9%	24.5%	18.4%	5.26%	2.06%	0.97%	0.42%	0.28%	0.076%		
				<u> </u>										
	Accounted for ~67% of global demand in 2010													

Source: "Technology minerals - The rare earths race is on!", Ernst & Young, April 2011



**IAMGOLD**<sup>®</sup>

## **Excellent Infrastructure**





- 1 km north of IAMGOLD's operating niobium mine
- Prospect of utilizing existing underground at Niobec as well as surface facilities to mine and process the REEs
- Among the world's top 5 mining friendly jurisdictions<sup>1</sup>
- Existing road and rail infrastructure
- Proximity to deep water ports and ocean access
- Very competitive hydro rates @~\$0.045/kWh

<sup>1</sup>Source: The Fraser Institute's *Survey of Mining Companies: 2011/2012* 

### IAMGOLD<sup>®</sup>

#### Provides Speed to Market Advantage

### **Estimated value of IAMGOLD's Major REOs at current prices**



		Foreca	st 2012 <sup>1</sup>
Oxides	Grade	Price	Gross Value
	%	\$/kg	\$/t
Cerium oxide	0.79	60	474
Lanthanum oxide	0.41	80	328
*Neodymium oxide	0.30	190	570
Praseodymium oxide	0.09	180	162
Samarium oxide	0.03	90	27
Gadolinium oxide	0.02	120	19
*Dysprosium oxide	0.005	1,300	65
*Europium oxide	0.007	2,500	175
TOTAL	1.65		1,820

<sup>1</sup>Source: Roscoe Postle Associates Inc.

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\*Critical REEs

Critical REOs comprise of 45% of Total Gross value

Please see cautionary disclaimer on page 23

### **Rare Earth Elements Competitive Landscape**

#### Over 56 rare earth projects are publicly owned – of which, only one asset is in production

	Project Name	Owner	Country	Stage	Resource ('000 Tonnes)	Grade (%)	TREO ('000 Tonnes)
1	Selwyn Lake	Aben Resources Ltd	Canada	Exploration	0	0	0
2	Nolans Bore	Arafura Resources Ltd	Australia	Feasibility	46,000	2.5	1,150
3	Nechalacho	Avalon Rare Metals Inc	Canada	Feasibility	311,710	1.37	4,276
4	Carbo	Canadian International Minerals Inc.	Canada	Target Outline	0	0	0
5	Diamond Creek	Colorado Rare Earths Inc.	USA	Reserves Development	0	0	0
6	Lemhi Pass	Colorado Rare Earths Inc.	USA	Target Outline	0	0	0
7	Wet Mountains	Colorado Rare Earths Inc.	USA	Reserves Development	13,960	1.01	141
8	Eldor	Commerce Resources Corp	Canada	Reserves Development	117,340	1.74	2,042
9	Charley Creek	Crossland Uranium Mines Ltd	Australia	Target Outline	0	0	0
10	Nyngan Gilgai	EMC Metals Corp	Australia	Feasibility	12012	0.03	3
10	Nutaaq	Forum Uranium Corp	Canada	Exploration	0	0.05	0
12	Zandkopsdrift	Frontier Rare Earths Ltd	South Africa	Reserves Development	43,730	2.16	946
12	Montviel	GeoMega Resources Inc	Canada	Reserves Development	250,600	1.46	3,646
15			Malawi		0	0	3,646
	Machinga	Globe Metals and Mining Ltd		Target Outline			0
15	Mount Muambe	Globe Metals and Mining Ltd	Mozambique	Target Outline	0	0	0
16	Hunters Point	Globex Mining Enterprises Inc	Canada	Exploration	0	0	0
17	Benjamin River	Great Western Minerals Group Ltd	Canada	Exploration	0	0	0
18	Deep Sands	Great Western Minerals Group Ltd	USA	Target Outline	0	0	0
19	Douglas River	Great Western Minerals Group Ltd	Canada	Exploration	0	0	0
20	Hoidas Lake	Great Western Minerals Group Ltd	Canada	Reserves Development	2,847	2.03	58
21	Red Wine	Great Western Minerals Group Ltd	Canada	Exploration	0	0	0
22	Steenkampskraal	Great Western Minerals Group Ltd	South Africa	Feasibility	250	11.8	29
23	True Blue	Great Western Minerals Group Ltd	Canada	Exploration	0	0	0
24	Kvanefjeld	Greenland Minerals and Energy Ltd	Greenland	Reserves Development	619,000	1.06	6,555
25	Yangibana	Hastings Rare Metals Ltd	Australia	Target Outline	3,500	1.7	60
26	Sarfartog	Hudson Resources Inc	Greenland	Reserves Development	14,058	1.51	213
27	REE Project	IAMGOLD	Canada	Reserves Development	466,800	1.65	7,702
28	Maoniuping	Jiangxi Copper Co Ltd.	China	Production	62,300	2.89	1,800
29	Cummins Range	Kimberley Rare Earths Ltd	Australia	Reserves Development	4,170	1.72	72
30	Kangankunde	Lynas Corp Ltd.	Malawi	Reserves Development	2,530	4.24	107
31	Mt. Weld	Lynas Corp Ltd	Australia	Preproduction	23,941	7.9	1,891
32	Zeus	Matamec Explorations	Canada	Reserves Development	16,314	0.50	82
33	Songwe Hill	Mkango Resources	Malawi	Reserves Development	1,512	1.73	26
34	Mountain Pass						
35				Preproduction	13 108	8 24	1 080
36	Lofdal	Molycorp Inc.	USA Nambia	Preproduction	13,108	8.24	1,080
	Lofdal Browns Range	Nambia Rare Earths Inc.	Nambia	Exploration	0	0	0
	Browns Range	Nambia Rare Earths Inc. Northern Minerals Ltd	Nambia Australia	Exploration Target Outline	0 0	0 0	0
37	Browns Range Naualla	Nambia Rare Earths Inc. Northern Minerals Ltd Peak Resources Ltd	Nambia Australia Tanzania	Exploration Target Outline Target Outline	0 0 0	0 0 0	0 0 0
38	Browns Range Naualla George River	Nambia Rare Earths Inc. Northern Minerals Ltd Peak Resources Ltd Quest Rare Minerals Ltd	Nambia Australia Tanzania Canada	Exploration Target Outline Target Outline Exploration	0 0 0 0	0 0 0 0	0 0 0 0
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38 39 40 41 42 43 44 45 46 46 47 48 49	Browns Range Naualla George River Misery Lake Strange Lake Loonie Clay-Howells Lavergne-Springer Letitia Lake Bear Lodge Eden Lake Port Hope Simpson Pope's Hill Kw yibo	Nambia Rare Earths Inc.         Northern Minerals Ltd         Peak Resources Ltd         Quest Rare Minerals Ltd         Quest Rare Minerals Ltd         Quest Rare Minerals Ltd         Quest Rare Minerals Ltd         Rare Earth Metals Inc.         Rare Element Resources Ltd         Search Minerals Inc         Silver Spruce Resources Ince         SOQUEM Inc	Nambia Australia Tanzania Canada Canada Canada Canada Canada Canada Canada USA Canada Canada Canada Canada Canada Canada Canada Canada Canada Canada Canada Canada Canada Canada	Exploration Target Outline Exploration Exploration Reserves Development Exploration Target Outline Exploration Target Outline Reserves Development Exploration Target Outline Exploration Exploration Exploration Exploration	0 0 0 229,800 0 0 0 28,105 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 9 0 0 0 2.96 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 2,100 0 0 0 0 0 832 0 0 832 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
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38 39 40 41 42 43 44 45 46 47 48 49 50 51	Browns Range Naualla George River Misery Lake Strange Lake Loonie Clay-Howells Lavergne-Springer Letitia Lake Bear Lodge Eden Lake Port Hope Simpson Pope's Hill Kw vjibo Kutessay II Norra Karr	Nambia Rare Earths Inc.         Northern Minerals Ltd         Peak Resources Ltd         Quest Rare Minerals Ltd         Quest Rare Minerals Ltd         Quest Rare Minerals Ltd         Quest Rare Minerals Ltd         Rare Earth Metals Inc.         Rare Element Resources Ltd         Search Minerals Inc         Silver Spruce Resources Ltd         SoQUEM Inc         Stans Energy Corp         Tasman Metals Ltd         Tasman Metals Ltd	Nambia Australia Tanzania Canada Canada Canada Canada Canada Canada Canada USA Canada USA Canada Canada Canada Canada Canada Canada Canada Canada Canada Canada Canada Canada Sweden	Exploration Target Outline Exploration Exploration Reserves Development Exploration Target Outline Exploration Target Outline Reserves Development Exploration Target Outline Exploration Exploration Exploration Exploration Exploration Exploration Exploration Exploration Exploration Exploration Exploration Exploration Exploration Easibility Reserves Development	0 0 0 229,800 0 0 0 0 28,105 0 0 28,105 0 0 0 0 18,011 60,500	0 0 0 0.91 0 0 0 0 2.96 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 2,100 0 0 0 0 832 0 0 832 0 0 0 0 0 0 46 327
38 39 40 41 42 43 45 46 47 48 49 50 51 52 53	Browns Range Naualla George River Misery Lake Strange Lake Loonie Clay-Howells Lavergne-Springer Lettia Lake Bear Lodge Eden Lake Port Hope Simpson Pope's Hill Kw yijbo Kutessay II Norra Karr Otanmaki Mercier	Nambia Rare Earths Inc.         Northern Minerals Ltd         Peak Resources Ltd         Quest Rare Minerals Ltd         Rare Earth Metals Inc.         Rare Earth Metals Inc.         Rare Earth Metals Inc.         Rare Earth Metals Inc.         Rare Element Resources Ltd         Search Minerals Inc         Silver Spruce Resources Ince         SOQUEM Inc         Stans Energy Corp         Tasman Metals Ltd         Tasman Metals Ltd         Threegold Resources Inc.	Nambia Australia Tanzania Canada Canada Canada Canada Canada Canada USA Canada USA Canada Canada Canada Canada Canada Canada Canada Canada Sweden Finland Canada	Exploration Target Outline Target Outline Exploration Exploration Reserves Development Exploration Target Outline Exploration Target Outline Reserves Development Exploration Target Outline Exploration Feasibility Reserves Development Reserves Development Reserves Development Reserves Development Reserves Development Reserves Development	0 0 0 229,800 0 229,800 0 0 0 0 28,105 0 0 0 0 18,011 60,500 460 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 2,100 0 0 0 0 0 832 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
38 39 40 41 42 43 44 45 45 46 47 48 49 50 51 52	Browns Range Naualla George River Misery Lake Strange Lake Loonie Clay-Howells Lavergne-Springer Letitia Lake Bear Lodge Eden Lake Port Hope Simpson Pope's Hill Kw yjibo Kutessay II Norra Karr Otanmaki	Nambia Rare Earths Inc.         Northern Minerals Ltd         Peak Resources Ltd         Quest Rare Minerals Ltd         Quest Rare Minerals Ltd         Quest Rare Minerals Ltd         Quest Rare Minerals Ltd         Rare Earth Metals Inc.         Rare Element Resources Ltd         Search Minerals Inc         Silver Spruce Resources Ltd         SoQUEM Inc         Stans Energy Corp         Tasman Metals Ltd         Tasman Metals Ltd	Nambia Australia Tanzania Canada Canada Canada Canada Canada Canada Canada USA Canada Canada Canada Canada Canada Canada Canada Canada Canada Canada Canada Fanada Canada Canada	Exploration Target Outline Exploration Exploration Reserves Development Exploration Target Outline Exploration Target Outline Reserves Development Exploration Target Outline Exploration Exploration Exploration Exploration Exploration Exploration Exploration Exploration Exploration Exploration Exploration Exploration Exploration Easibility Reserves Development	0 0 0 229,800 0 0 0 0 28,105 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 9 1 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 2,100 0 0 0 0 832 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

### Benchmarking IAMGOLD's REE Project

### **REE** Rare Earth Elements

#	Project Name	Owner	Country	Stage	Resource ('000 Tonnes)	Grade (%)	TREO ('000 Tonnes)
1	REE Project	IAMGOLD	Canada	<b>Reserves Development</b>	466,800	1.65	7,702
2	Kvanefjeld	Greenland Minerals and Energy Ltd	Greenland	Reserves Development	619,000	1.06	6,555
3	Nechalacho	Avalon Rare Metals Inc	Canada	Feasibility	311,710	1.37	4,276
4	Montviel	GeoMega Resources Inc	Canada	Reserves Development	250,600	1.46	3,646
5	Iron Hill	US Rare Earths Inc.	United States	Feasibility	2,155,600	0.12	2,608
6	Strange Lake	Quest Rare Minerals Ltd	Canada	Reserves Development	229,800	0.91	2,100
7	Eldor	Commerce Resources Corp	Canada	Reserves Development	117,340	1.74	2,042
8	Mt. Weld	Lynas Corp Ltd	Australia	Preproduction	23,941	7.9	1,891
9	Maoniuping	Jiangxi Copper Co Ltd.	China	Production	62,300	2.89	1,800
10	Nolans Bore	Arafura Resources Ltd	Australia	Feasibility	46,000	2.5	1,150
11	Mountain Pass	Molycorp Inc.	USA	Preproduction	13,108	8.24	1,080
12	Zandkopsdrift	Frontier Rare Earths Ltd	South Africa	Reserves Development	43,730	2.16	946
13	Bear Lodge	Rare Element Resources Ltd	USA	Reserves Development	28,105	2.96	832
14	Norra Karr	Tasman Metals Ltd	Sweden	Reserves Development	60,500	0.54	327
15	Sarfartoq	Hudson Resources Inc	Greenland	Reserves Development	14,058	1.51	213
16	Wet Mountains	Colorado Rare Earths Inc.	USA	Reserves Development	13,960	1.01	141
17	Rodeo de Los Molles	Wealth Minerals Ltd	Argentina	Reserves Development	5,600	2.1	118
18	Kangankunde	Lynas Corp Ltd.	Malawi	Reserves Development	2,530	4.24	107
19	Zeus	Matamec Explorations	Canada	Reserves Development	16,314	0.5	82
20	Cummins Range	Kimberley Rare Earths Ltd	Australia	Reserves Development	4,170	1.72	72
21	Yangibana	Hastings Rare Metals Ltd	Australia	Target Outline	3,500	1.7	60
22	Hoidas Lake	Great Western Minerals Group Ltd	Canada	Reserves Development	2,847	2.03	58
23	Kutessay II	Stans Energy Corp	Kyrgyzstan	Feasibility	18,011	0.26	46
24	Steenkampskraal	Great Western Minerals Group Ltd	South Africa	Feasibility	250	11.8	29
25	Bokan Mountain	Ucore Rare Metals Inc.	United States	Reserves Development	3,669	0.75	27
26	Songwe Hill	Mkango Resources	Malawi	Reserves Development	1,512	1.73	26
27	Otanmaki	Tasman Metals Ltd.	Finland	Reserves Development	460	2.71	12

 Of the 27 projects with a defined resource, most are in the reserves development stage

 Compared to other rare earth projects, IAMGOLD's REE Project has significantly more TREO resources

 IAMGOLD's REE Project's resource is +7.7Mt compared to average of 1.4Mt. This represents 5.5x the average rare earth deposit

### IAMGOLD<sup>®</sup>

#### IAMGOLD's REE Project is significantly larger than other rare earth projects

### Benchmarking IAMGOLD's REE Project (cont'd)

REE Bare Farth Elements

		Car	nada		ι	JSA	Rest of the world			
	IAMGOLD'	RARE METALS INC.	GreatWestern	GéoMégA	Molycorp Minerals	Rare Element Resources	Lynas	GREENLAND		
Overview						,				
Market Cap (US\$M)	\$5,015	\$316	\$217	\$12	\$3,100	\$281	\$1,810	\$205	\$104	
Project	REE Project	Nechalacho	Hoidas Lake	Montviel	Mountain Pass	Bear Lodge	CL	Kvanefjel	Zandkopsdrift	
Location	Quebec, Canada	Yukon, Canada	Saskatchewan, Canada	Quebec, Canada	California, USA	Wyoming , USA	Laverton, Australia	Kujalleq, Greenland	Northern Cape, South Africa	
Total Resource (tonnes)	466,800,000	311,710,000	2,847,431	250,600,000	13,108,000	28,105,000	14,949,000	619,000,000	43,730,000	
Stage	Inferred	M&I	M&I	M&I	P&P	M&I	M&I	M&I	M&I	
TREO% (grade)	1.65	1.37	2.03	1.46	8.24	2.96	9.77	1.06	2.16	
TREO (tonnes)	7,702,200	4,276,000	57,803	3,645,887	1,080,320	832,000	1,460,000	6,555,000	945,863	
HREO/TREO (%)	1.88	15.48	3.7	1.71	0.46	3.23	2.84	11.80	7.87	
CREO/TREO (%)	24.02	34.63	28.71	22.86	16.15	24.78	24.92	26.20	25.94	
Last published study	NI 43-101 Resource	PFS	NI 43-101 Resource	NI 43-101 Resource	DFS	PEA	DFS	Interim PFS	PEA	
Next study	PEA	DFS	PEA	PEA	Production (non-stockpile)	PFS	Production	Final PFS	PFS	
Expected Date	2012	2H/2012	n/a	Q4/2012	Q1/2012	Q1/2012	Q2/2012	Q2/2012	Q4/2012	
Mine Plan	n/a	Underground	Underground	Open Pit	Open Pit	Open Pit	Open-Pit	Open Pit	Open Pit	
Host Rock	Carbonatite	Syenite/ Granite	Granite	Carbonatite	Carbonatite	Carbonatite	Carbonatite	Peralkaline	Carbonatite	
Key REE Mineralization	Bastnaesite/ Monazite	Fergusonite	Apatite/Allanite/ Bastnaesite	Huanghoite/ Cebaite	Bastnaesite	Bastnaesite	Monazite	Steenstrupine	Monazite	
Metallurgy Stage	Bench	DPP 1:100	Bench	Bench	Production	Bench	Near Production	DPP 1:9000	Bench	
Potential By-Products	Sc, Y, Ga, Sr	Ta, Nb, Zr, Hf	Р	Nb	n/a	n/a	Ta, Nb, Fe, Ph	U (main prod.), Zn	n/a	
			-			-		-		
Tonnes Milled (tonnes/yr)	n/a	730,00	260,000	1,500,000	657,000	326,587	250,000	7,200,000	1,000,000	
TREO (tonnes/yr)	n/a	10,000	5,000	3,000-5,000 of Nd	40,000	10,400	22,000	7,000 (REE only)	20,000	
Targeted Start Date	n/a	2015	2016	2015	2012	2015	2012	2016	2015	
Accessibility	Very Good	Satisfactory	Satisfactory	Very Good	Excellent	Good	Very Good	Satisfactory	Good	
Existing Infrastructure	Excellent	Satisfactory	Satisfactory	Good	Good	Good	Good	Satisfactory	Good	
Power/Local Resources	Very Good	Good	Good	Very Good	Very Good	Good	Good	Satisfactory	Good	

#### Peer selection based on:

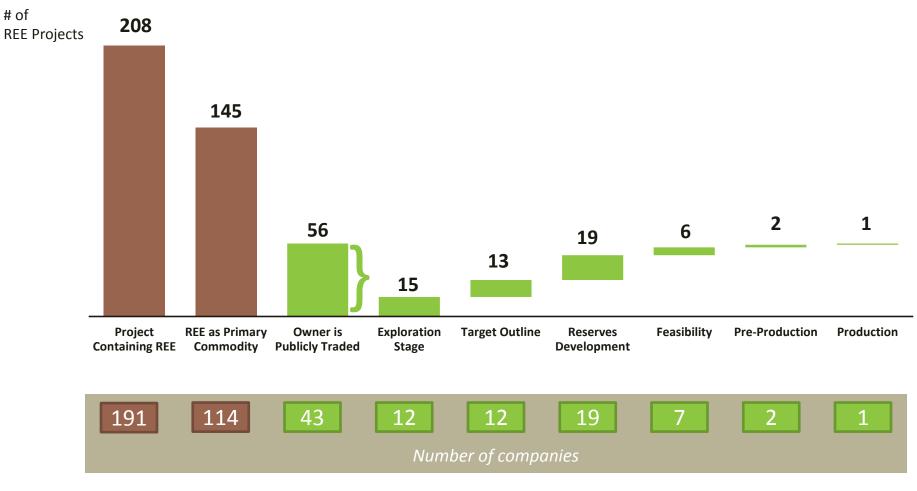
Relative stage of development, Resource size, Grade and HREO & CREO distribution



 Most projects have a PEA/PFS completed  IAMGOLD's infrastructure provides speed to market advantage

## **Global REE Projects**





Source: Metals Economics Group



Early days: 50% of REE projects have not yet declared a reserve

## **Ground to Market Process**



### **Products**

- Permanent magnets
- LED's
- Consumer Electronics

5

Δ

3

2



#### REFINING

to meet specific downstream technological applications

**SEPARATION** 

separating and purifying the individual REE oxides

#### HYDRO-METALLURGY

cracking the REE minerals to produce mixed REE oxides concentrates

MILLING

grinding and beneficiation of REE minerals

MINING From the ground to the crushed ore

### IAMGOLD<sup>®</sup>

## **IAMGOLD REE Milestones**

Drilling	<ul> <li>Further exploration and infill drilling expected to extend resource model below current depth</li> <li>8,750 m drill campaign initiated in Jan'12 to define lateral extent of resource</li> </ul>
Scoping Study	<ul> <li>2012 Scoping Study will define significance of REE resource</li> </ul>
Pilot Plant Testing	<ul> <li>Extend Niobec drift at 1,300 m level to access REEs by Q3'12</li> <li>25 tonne metallurgical sample to be obtained to perform pilot plant testwork</li> <li>Potential testing at Niobec's processing plant facility</li> </ul>
Exploring options	<ul> <li>JV partners and strategic alliances</li> </ul>



### **REE Technical Information Qualified Person/Control Notes**



#### **REE Technical Information and Qualified Person/Quality Control Notes**

Mineral resource estimates have been prepared in accordance with National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101"). The "Qualified Person" responsible for the supervision of the preparation and review of this information is Marie-France Bugnon, P. Geo., General Manager, Exploration. Marie-France is considered a "Qualified Person" for the purposes of National Instrument 43-101 with respect to the technical information being reported. The "Qualified Person" responsible for the estimation of the Mineral Resources is Pierre Jean Lafleur, Eng., principal consultant of P.J. Lafleur Géo-Conseil Inc ("PJLGC") of Ste-Thérèse, Québec. Pierre Jean is an independent person considered a "Qualified Person" for the purposes of National Instrument 43-101 with respect to the technical information being reported. The technical information has been included herein with the consent and prior review of the above noted Qualified Person. The Qualified person has verified the data disclosed and the data underlying the information or opinions contained herein. Core assays are performed on core sawed or split in half. The samples were assayed by using sodium peroxide fusion and Inductively Coupled Plasma Mass Spectrometry (ICP-MS) for lanthanides over upper limit, and re-assayed by sodium peroxide fusion and a combination of Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) and ICP-MS for 55 elements. Assays were carried out at SGS Canada Inc. of Lakefield, Ontario and Actlabs Ltd of Ancaster, Ontario. Certified reference material, duplicate and blanks were inserted in the sample sequence for quality control.



# Thank You

#### **Contact us**

#### **IAMGOLD** Corporation

401 Bay Street, Suite 3200P.O. Box 153, Toronto, Ontario M5H 2Y4 Canada T: 416 360 4710 | TF: 1 888 464 9999 | F: 416 360 4750

Jeffery Snow SVP & General Counsel

**Pierre Pelletier** VP, Metallurgy

**Stephen Eddy** Director, Corporate Development

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IAMGOLD.COM | TSX: IMG | NYSE: IAG



