



**Orion Metals Limited (ASX:ORM)**

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ABN 89 096 142 737

## **ASX Announcement**

# **Broker and Investor Presentations**

**Sydney - 9<sup>th</sup> and 10<sup>th</sup> February**

As a follow up to the positive drilling results announced on the 23<sup>rd</sup> of December 2010 on our Killi Killi tenements in WA, Adrian Day our Geologist Director and I will be presenting the attached power point to brokers and investors.

We will be highlighting the significance of our Killi Killi discovery especially the highly sought after Heavy Rare Earths HREE.

China currently produces 95 % of the world's supply of rare earths. China's chief rare earths research body recently reported that it expects the nation to become a net importer, even though it is the world's biggest producer.

The news is likely to fuel supply concerns from big consumers like Japan and the US. In a presentation in Vancouver, Chinese Society of Rare Earths (CSRE) director Chen Zhanheng said Chinese consumption of the substances was growing rapidly. "There are early signals that China is moving from sell-side to buy-side. China becomes a new market opportunity for producers outside China," he said. Chinese exports of rare earths peaked at nearly 60,000 tonnes, but slipped to about 39,000 tonnes in 2009. That level was still more than Chinese quotas, which have been designed to slash exports.

Mr Chen said the quota from 2011 to 2015 should be between 32,000 and 35,000 tonnes.

A handwritten signature in black ink, appearing to read 'James Canning-Ure'.

**James Canning-Ure**  
Managing Director

Further information on Orion Metals Ltd. visit [www.orionmetals.com.au](http://www.orionmetals.com.au).



INVESTOR UPDATE  
GOLD, RARE EARTH ELEMENTS & TECH METALS  
ASX:ORM

James Canning-Ure  
Managing Director

Adrian Day  
Geology Director

9<sup>th</sup> February 2011

ABN: 89 096 142 737



# Corporate Overview

- **Shares on issue (ASX:ORM)**
  - 72,244,136 shares on issue
  - \$14.45 Million market capitalisation at 20 cents
- **Options on issue (ASX:ORMO)**
  - 7,445,478 options listed
  - Unlisted options 3.5M
- **Cash on hand \$3.5M**
  - \$4.4M after option conversion 25 February 2011
- **Tight Shareholding**
  - Top 20 shareholders hold 74.6% of listed Shares
    - Jien Mining (China) 15.36%
    - Metallica Minerals (ASX:MLM) 16.43%
    - Conglin Yue (Conglin Group) 16.08%
    - Directors approximately 10%



# Vision & Strategy

## Vision

- To become a leading Australian explorer of Heavy Rare Earth Elements (HREE) - utilising the best available people, resources and technology.

## Strategy

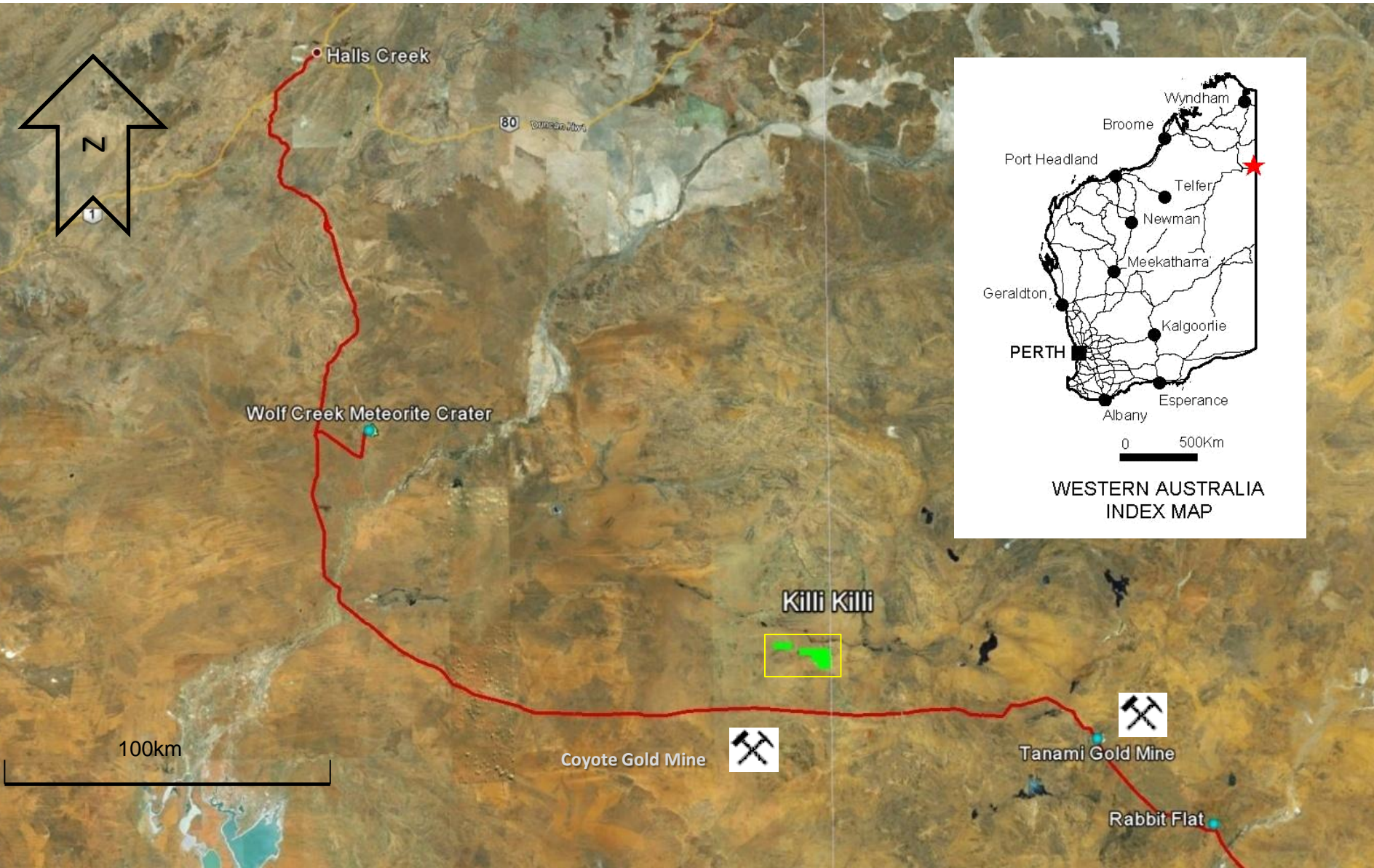
- Critical mass by securing new prospects and partners
- Prioritise exploration and rapidly execute plans
- Actively search for other REE and gold opportunities
- Build a team of leading executives and technicians
  - In-house mapping, geophysics and geochemistry
  - Specialist Geologist
- Plan for significant growth

# Orion Project Locations





# Killi Killi Hills Location



# Exploration Update



## Killi Killi Hills (HREE) – Major Project

- Highly prospective for HREE, Gold and Uranium
- 30 RC shallow reconnaissance drill holes
- Excellent drilling results released in Dec 2010
  - Exceeded all expectations for the extent of mineralisation
  - Previous announcement was not well understood by the market
- Abundance of “halides” is indicative of HREE mineralisation
- 6 metres gold at 5.85 g/t, rock chips to 9.4 g/t
- Drilling confirmed up to 40% of HREEY to TREEY
- Beneficiation/Metallurgical testing due April
- HREE enriched in unconformity and basement rocks
- 2011 extensive follow up exploration planned
- Expanded regional search
- Investigate “farm in”, purchase and JV with neighbours



Professor Ken Collerson Report on Killi Killi Hills

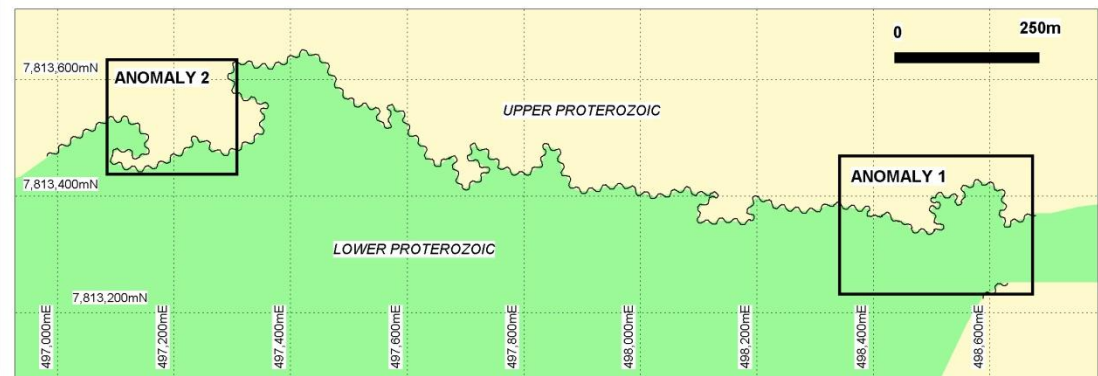
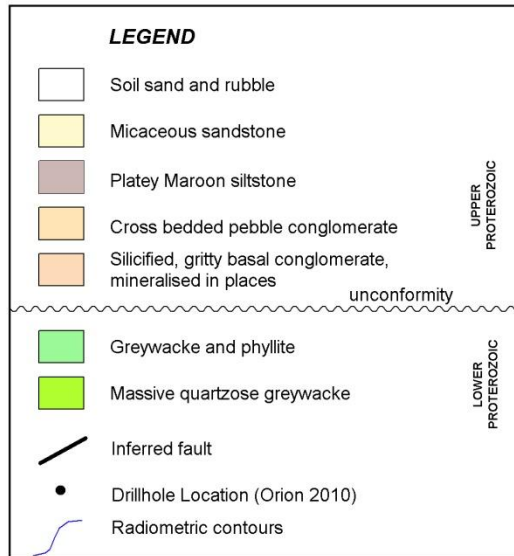
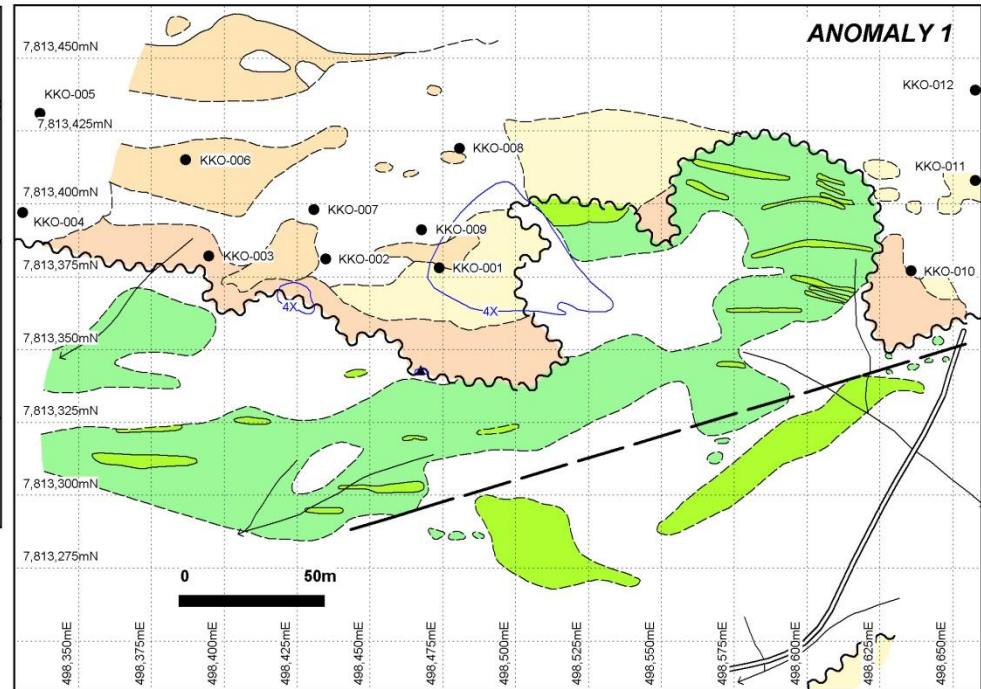
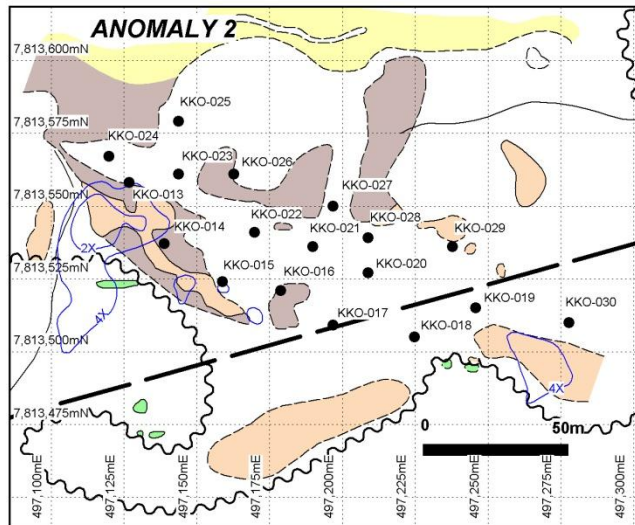
# Preliminary Findings

- The Killi Killi Hills tenements represent an important potential HREE+Y prospect
- Why Killi Killi Hills is significant:
  - Unconformity is a conduit for hydrothermal fluids
  - These fluids were most likely expelled from a crystallizing igneous complex
  - The regional faults in the area may have provided a pathway for fluids
- Orion's regional exploration focus should be to find the primary REE source

*\*Professor Ken Collerson is an internationally recognised geoscientist with more than 35 years of experience in Australia and Internationally. He is a renowned specialist in mineralogy, igneous and metamorphic petrology, trace element and isotope geochemistry, tectonics, deep earth geodynamics, Archean and Proterozoic crustal evolution.*



# Drilling November 2010 - Actual



ORION METALS LIMITED  
 KILLI KILLI EAST PROJECT - WESTERN AUSTRALIA  
 DRILLHOLE LOCATIONS (2010)

# Killi Killi Drilling Results



Table 1 - REE & Gold Mineralised Drill Intercepts (ppm)

Sample	LREE grams per tonne					HREE grams per tonne							Gold
	Y	La	Ce	Nd	Sm	Eu	Gd	Tb	Dy	Er	Tm	Yb	Au
KK01 0 - 6													5.58
KK02 2 - 3													0.21
KK03 1 - 3	534	192	605	774	224	23	137	19	103	55	6	33	0.07
KK04 0- 3	236	151	456	634	156	14	73	9	50	30	4	21	0.07
KK0 7 4 - 6													0.3
KK07 7- 8	26	168	387	326	67	7	29	3	7	3	1	2	0.04
KK09 0 - 2	277	152	485	687	193	17	100	12	57	29	3	17	0.13
KK013 0- 3	507	554	1367	905	248	22	134	20	115	76	10	58	0.25
KK014 0-1	568	319	1118	>1000	423	32	175	23	118	74	8	47	0.02
Kk015 3 - 4													0.4
KK019 2-3	75	251	760	667	144	14	67	6	21	11	1	9	0.02
KK021 6-7													0.12
KK022 3-4	55	274	869	725	116	9	44	4	13	9	1	7	0.01
KK023 1-6	53	222	649	493	82	7	32	3	11	7	1	6	0.01
KK024 1-4	134	355	969	728	139	12	57	6	26	18	2	15	0.02
KK025 4-8													0.44
KK027 2-3	426	471	1364	>1000	205	17	99	13	79	57	8	48	0.01
KK030 3-4	55	184	574	463	119	12	52	5	15	7	1	5	0.02



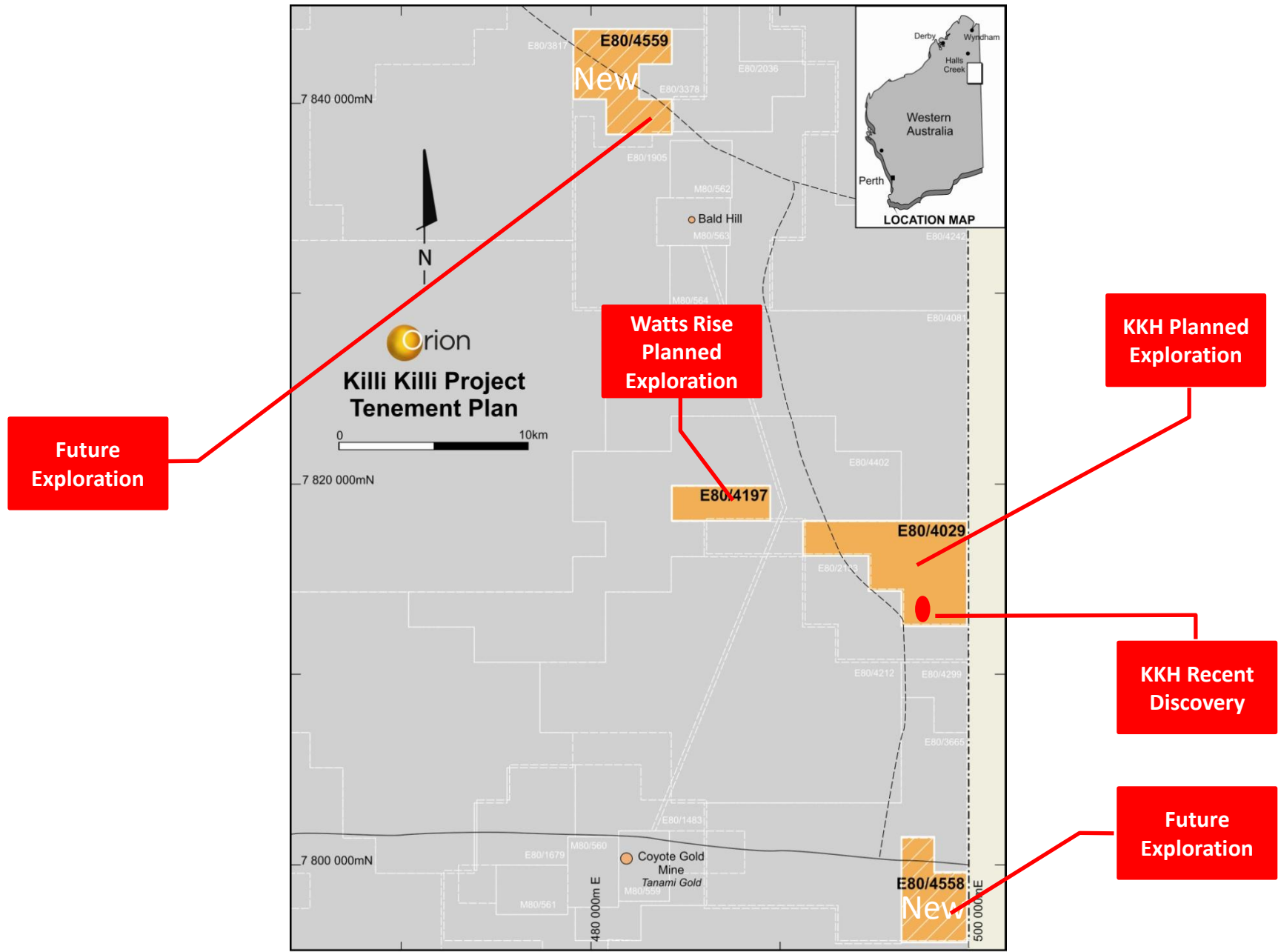
**Table 2** – Anomalous REE & Au Drill Intercepts in Basement Rocks (ppm)

Sample	LREE grams per tonne					HREE grams per tonne							Gold
	Y	La	Ce	Nd	Sm	Eu	Gd	Tb	Dy	Er	Tm	Yb	Au
KK05 7 - 11													0.21
KK05 11-18	116	79	176	130	31	4	24	4	22	13	2	10	
KK013 4 - 5	43	223	644	565	103	9	42	4	12	6	1	4	
KK013 4 - 5													0.29
KK016 6 -12	99	65	151	116	28	4	23	4	21	12	2	9	

**Table 3**. Rock Chip Samples – Significant REE & Gold Results (ppm)

Sample	LREE grams per tonne					HREE grams per tonne							Gold
	Y	La	Ce	Nd	Sm	Eu	Gd	Tb	Dy	Er	Tm	Yb	Au
KK42	121	475	1325	>1000	319	31	145	12	35	19	2	16	0.1
KK43	414	606	1468	>1000	229	19	119	16	105	84	12	76	0.01
KK48	904	811	2071	>1000	357	36	215	33	207	137	18	100	0.03
KK49	1094	263	510	632	159	23	182	35	274	217	31	184	0.01
KK57	1444	367	1118	>1000	608	65	382	54	317	169	19	93	0.71
KK64	56	721	1890	993	142	12	59	6	18	10	1	7	0.01
KK65	108	502	1427	>1000	176	13	66	7	26	20	3	18	0.01
KK66	51	600	1657	987	159	13	67	6	16	8	1	6	0.01

# Strengthening our Tanami Position





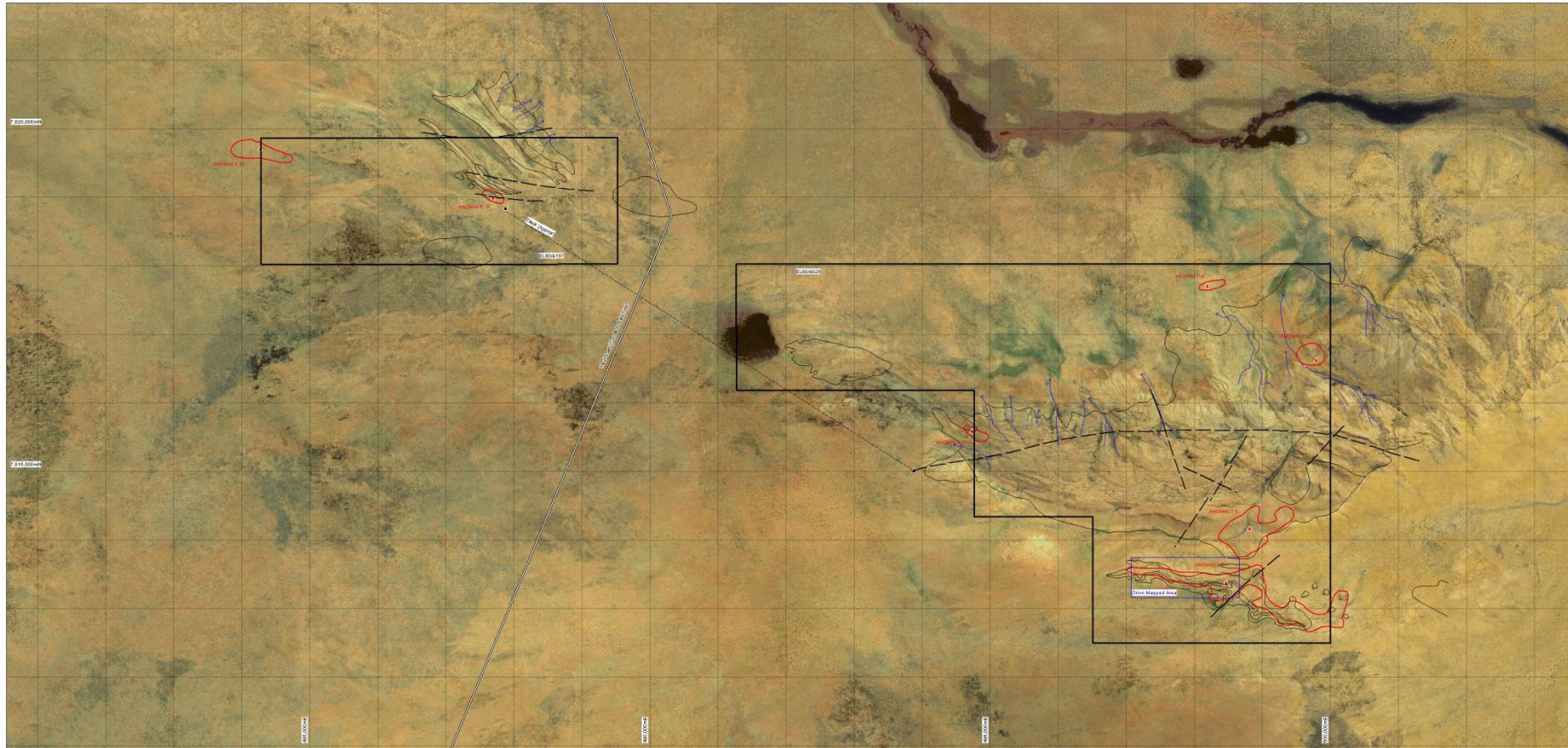
# Killi Killi Exploration Plan 2011

- **Tenement acquisition** E80/4558 & E 80/4559 - Jan
- **Desktop Regional Study** - regional geological & geophysical features - Late Feb
- **Metallurgical Testing** - Late Feb - results in April 2011
- **Radiometric Anomalies** - field work to investigate 7 radiometric anomalies - May
- **Magnetic Anomalies** - Review regional trends
- **Geochemical Soil Sampling** - May
- **New Tenements** - Rock chip and soil sampling - May
- **RAB Drilling** - at least 50 holes on both tenements - July / August





# Killi Killi - Radiometric Anomalies



**GEOLOGY LEGEND**

1	Sand
14, 15	Laminated quartz conglomerate with matrix quartzite and ripple marked sandstone
2	Micaceous siltstone and upper conglomerate
3	Basal conglomerate, grit and sandstone
4	Unconformity
5	LOWER PROTEROZOIC

Geology from DMG, 1989

**AEROMAGNETIC LEGEND**

ANOMALY 1-8	Radiometric Anomaly 2+ background
▲	Centre of Radiometric anomaly (see table for coordinates)
▲	Start and end points of track (see table for coordinates)

ANOMALY	EAST MGA	NORTH MGA	COMMENT
3	486 760	7 816 833	+30% CONTOUR
4	486 951	7 817 798	+20% CONTOUR
5	482 812	7 814 174	+30% CONTOUR
6	486 488	7 813 381	+45% SPOI
10	487 690	7 816 003	
11	484 274	7 816 797	2.5% SPOI
12	484 733	7 816 467	+2.0% CONTOUR
T1	483 893	7 816 024	Start Track
T2	483 876	7 816 846	End Track



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 BROWCO, B904197

**KILLI KILLI PROJECT**  
 Western Australia

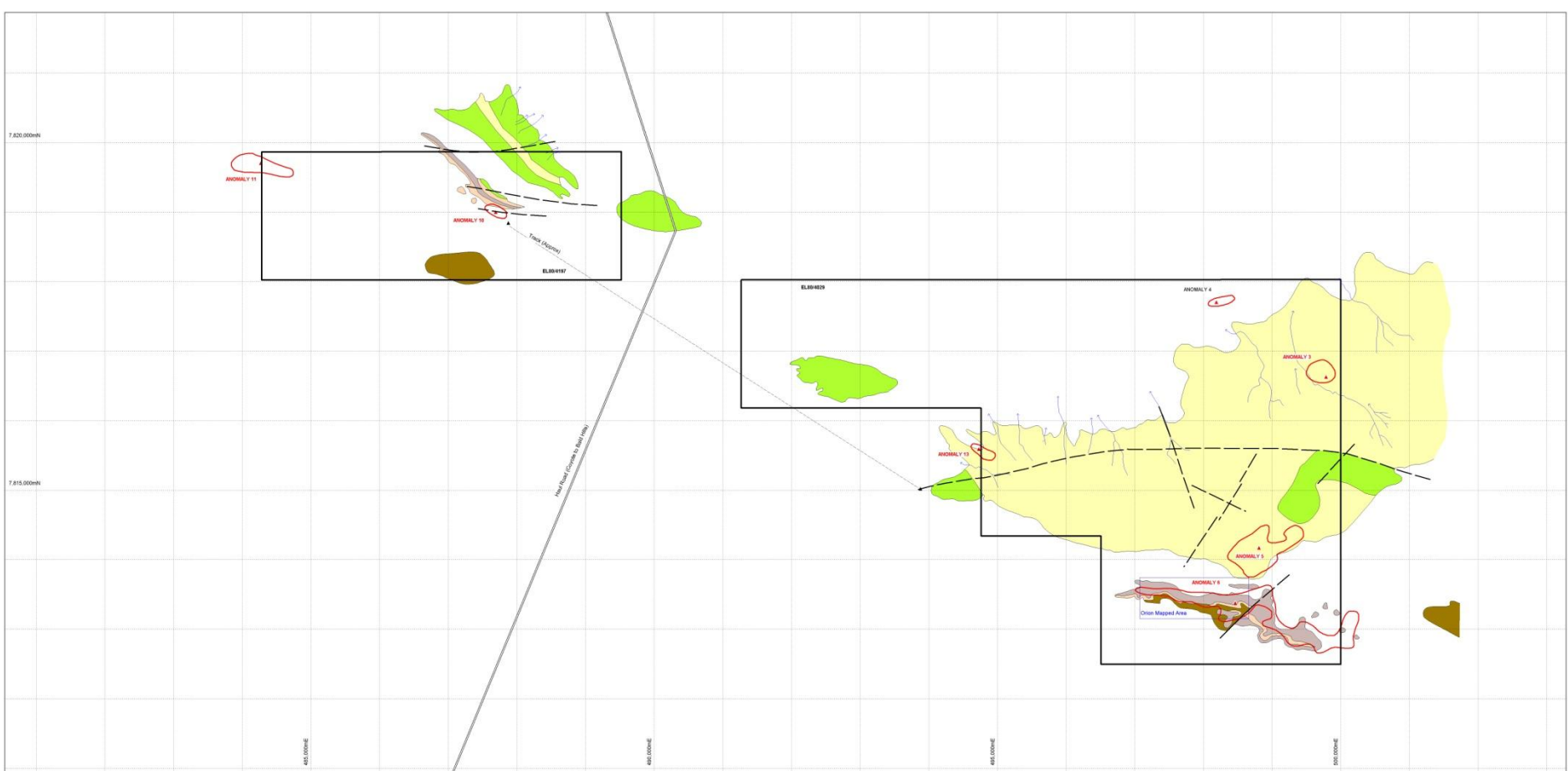
**GEOLOGY AND RADIOMETRIC ANOMALIES**

COMPILED BY: A. DAY	FEB 11	SCALE: 1:25,000	ENCLOSURE
DRAFTED BY: K.J. CORRIE	FEB 11	PROJ: MGA36 (zone 52)	
REVISED BY:		Draw No:	





# Killi Killi - Radiometric Anomalies



**GEOLOGY LEGEND**

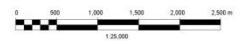
- Sand
- Laminated quartz greywacke with micaceous and lignite stained sandstone
- Miocene siltstone and upper conglomerate
- Basal conglomerate grit and sandstone
- Unconformity
- LOWER PROTEROZOIC

Geology from DM, 1983

**AEROMAGNETIC LEGEND**

- Radiometric Anomaly (background)
- Centre of Radiometric Anomaly (see table for coordinates)
- Min and max points of track (see table for coordinates)

ANOMALY	EAST_MGA	NORTH_MGA	COMMENT
1	486 760	7 818 822	3.5X CONTOUR
2	486 760	7 818 822	3.5X CONTOUR
3	486 181	7 817 798	2.5X CONTOUR
4	486 872	7 815 742	3.5X CONTOUR
5	486 480	7 815 381	4.5X CONTOUR
10	487 586	7 819 903	
11	486 274	7 819 707	2.5X SPOT
12	486 733	7 815 387	2.5X CONTOUR
13	485 981	7 815 526	Dist Track
14	487 879	7 819 848	Dist Track



**ORION METALS LIMITED**

ESB4024, ESB4197 KILLI KILLI

**KILLI KILLI PROJECT**  
Western Australia  
**GEOLOGY AND RADIOMETRIC ANOMALIES**

COMPILED BY	A. GUY	FEB 11	SCALE 1:25,000	ENCLOSURE
DRAFTED BY	K.J. FORRE	FEB 11	PROJ: WASKA Zone 02	
REVISED BY			Draw No.	



# Killi Killi Thorium Hot Spots

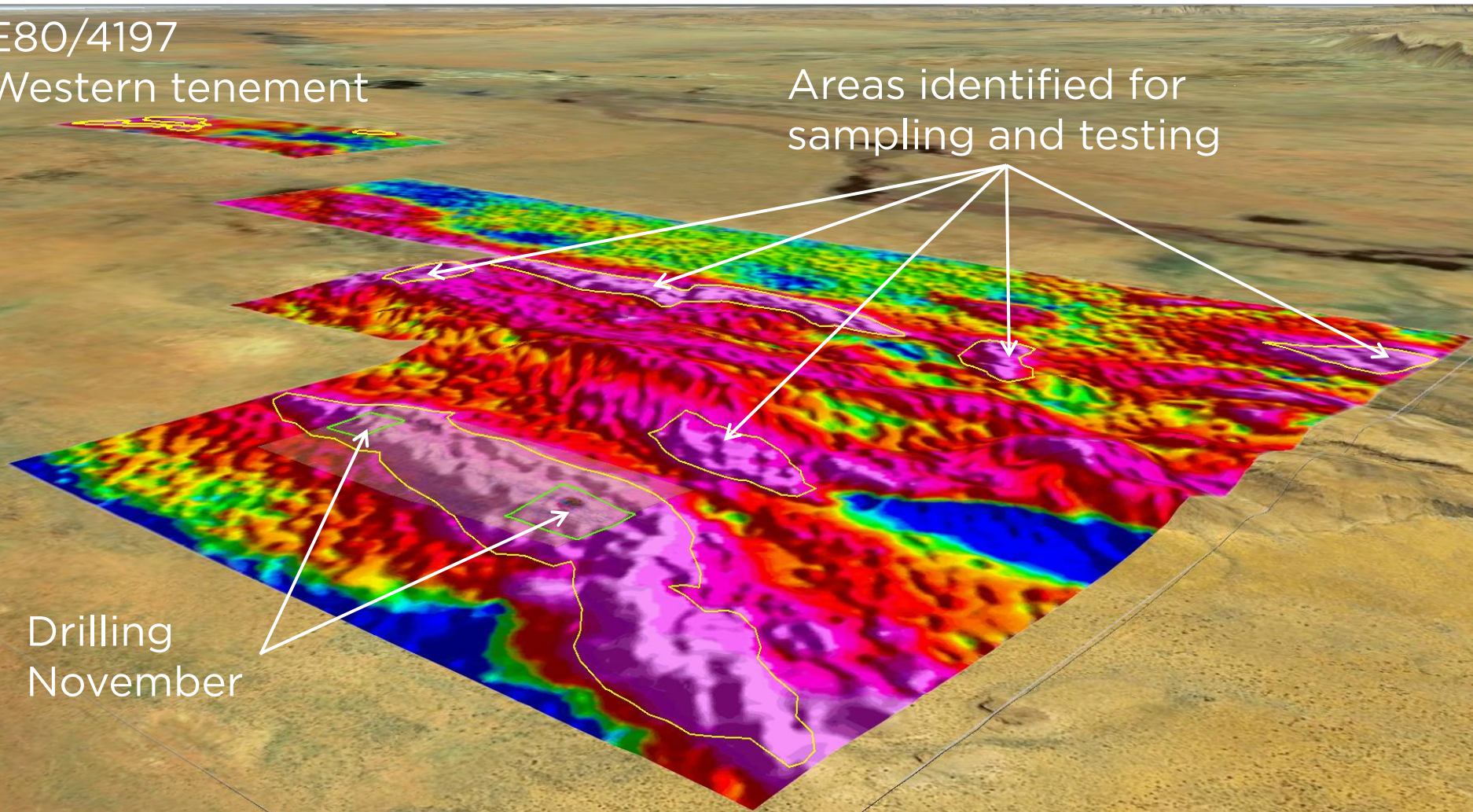
Eastern tenement E80/4029

E80/4197

Western tenement

Areas identified for  
sampling and testing

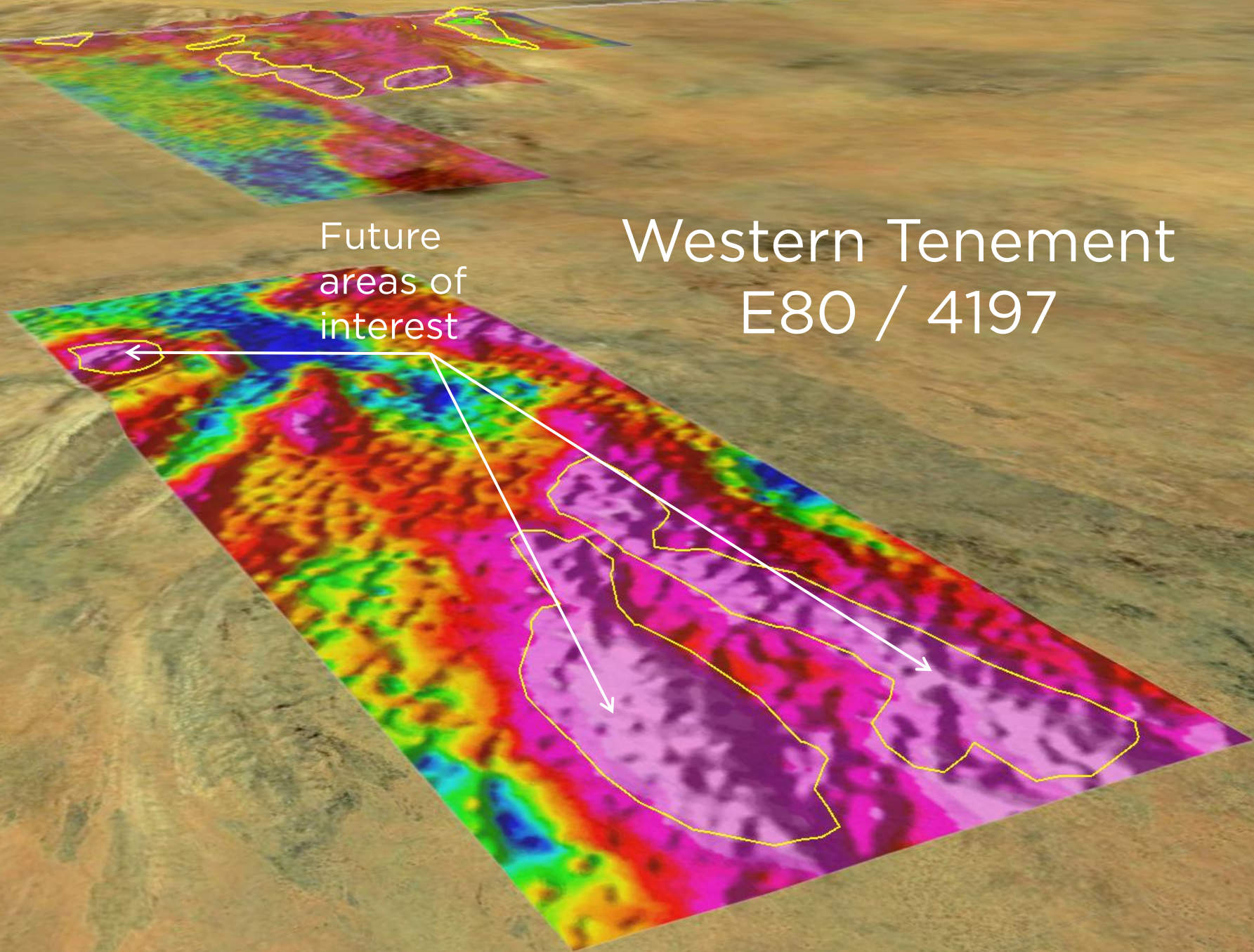
Drilling  
November





# Western Tenement E80 / 4197

Future  
areas of  
interest





# Not all 17 REEs are the same

## Two Completely Different Markets

- Light & Heavy

## Light Rare Earths LREE

- La, Ce, Nd, Sm – Polishing and Magnets

## Heavy Rare Earths HREE

- Gd, Dy, Tb, Lu – Electronics and Magnets

# REE Applications



	Catalytic	Magnetic	Electrical	Chemical	Optical
Lanthanum (La)	✓		✓	✓	✓
Cerium (Ce)	✓		✓	✓	✓
Praseodymium (Pr)		✓	✓	✓	✓
Neodymium (Nd)	✓	✓	✓		✓
Europium (Eu)					✓
Gadolinium (Gd)		✓			✓
Terbium (Tb)		✓			✓
Dysprosium (Dy)		✓			✓
Yttrium (Y)					✓



# Supply Rare Earth Oxides (tonnes)



Found at KKH

Byron Capital Markets, March (2010)

Oversupply	2010	2011	2012	2013	2014	2015	% 2015
La <sub>2</sub> O <sub>3</sub>	1,119	3,142	11,384	10,875	13,233	15,455	27%
CeO <sub>2</sub>	2,129	5,791	19,311	18,304	23,348	26,508	25%
Pr <sub>6</sub> O <sub>11</sub>	241	359	1,225	728	912	741	6%
Nd <sub>2</sub> O <sub>3</sub>	718	1,198	3,666	2,026	2,812	2,129	6%
Sm <sub>2</sub> O <sub>3</sub>	69	225	486	402	758	828	23%
Eu <sub>2</sub> O <sub>3</sub>	8	40	70	56	106	99	23%
Tb <sub>4</sub> O <sub>7</sub>	8	1	1	(16)	15	16	4%
Dy <sub>2</sub> O <sub>3</sub>	45	(42)	(95)	(217)	(626)	(848)	-7%





# Exploration Update

## Top Camp gold

- Further drilling program for source of gold anomalies
- Significant intercepts of magnetite with sporadic anomalous Cu & Au
- Review of data and alternatives for future drilling

## Bonner & Fulford Creeks REE

- 5 EPM's & 1 MLA in North Qld
- Large drainages containing alluvial heavy mineral accumulations
- Monazite and xenotime radiogenic granite sources
- Large unexplored greisen granite bodies

## Rutherfords gold

- Contracted to sell for \$450k – settles March/April 2011



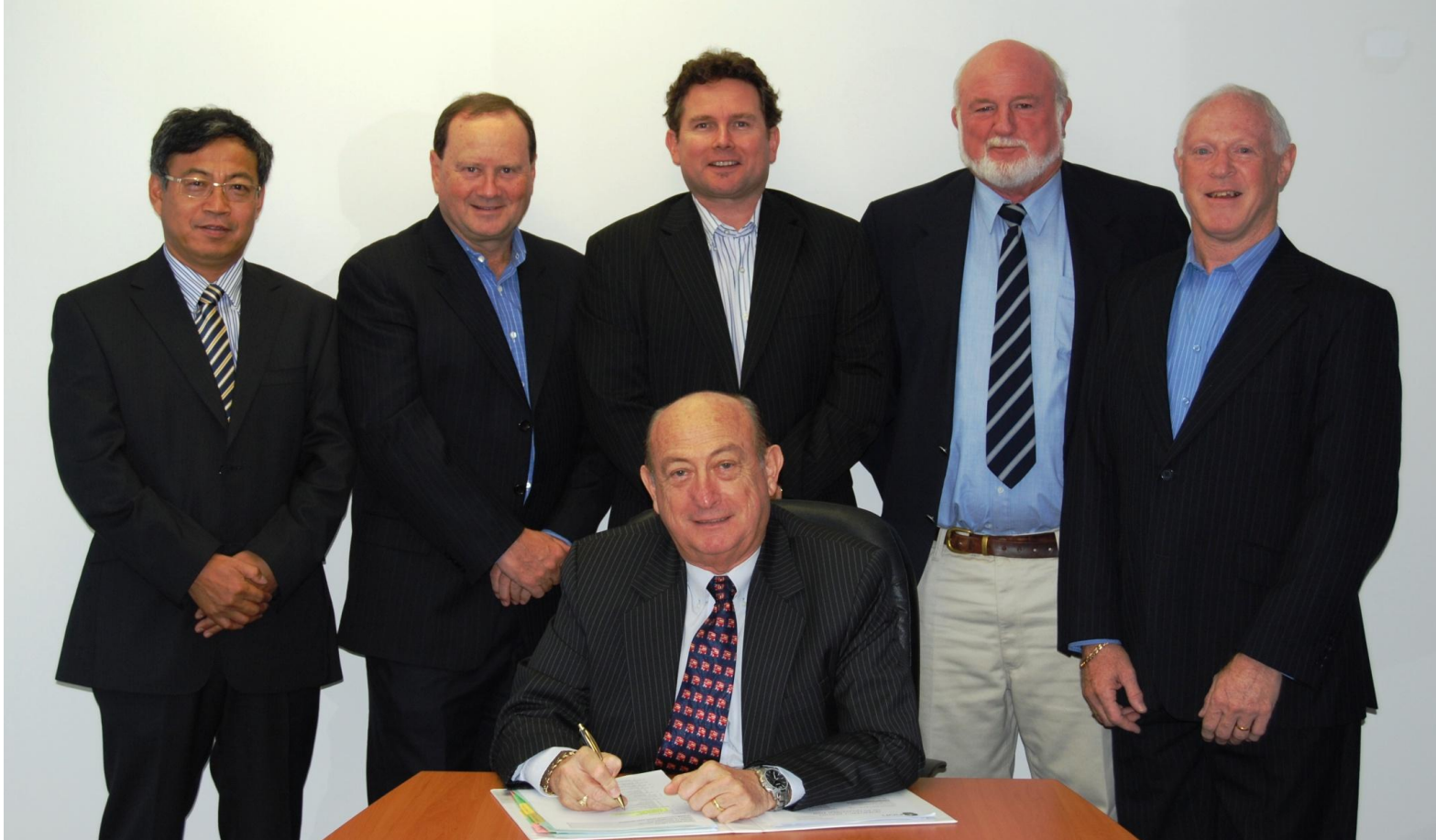
# Final Thoughts

- Poised for substantial growth
- Prudent management and financial controls cements a strong financial position
- Review of other projects confirm the value and prospects for KKH
  - New JV's, purchases or farm-ins being offered to us
- Follow up KKH exploration commenced
  - Underpinned by excellent results
  - Extensive mineralisation
- HREE – Highly sought after - critical
- China signals interest in importing HREE



# Thank You for your Support

## Orion Board



Tao Li Director , James Canning-Ure Managing Director ,Andrew Gillies Director, Adrian Day Director , Bill Lyne Company Secretary,  
David Barwick Chairman ( Seated)



# Disclosure

- Statements and material contained in this Presentation, particularly those regarding possible or assumed future performance, commodity prices, resources or potential growth of Orion Metals Limited (Orion), industry growth or other trend projections are, or may be, ***forward looking statements***. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties.
- Orion is at an early exploration stage and although reasonable care has been taken to ensure that the facts stated in this presentation are accurate and or that the opinions expressed are fair and reasonable, no reliance can be placed for any purpose whatsoever on the information contained in this document or on its completeness.
- Actual results and developments may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors.
- Nothing in this presentation should be construed as either an offer to sell or a solicitation of an offer to buy or sell shares in any jurisdiction.
- In accordance with Listing Rules 5.1 and 5.12 of the Australian Securities Exchange technical information contained in this report has been compiled by Mr. Adrian Day BSc (Geology), MAIG, MSEG, MGSA who is a competent person and member of the Australasian Institute of Geoscientists. Mr Day has relevant experience to the mineralisation being reported on to qualify as a Competent Person as defined by the Australasian Code for Reporting of Minerals Resources and Reserves. Mr Day is a non-executive Director of Orion Metals Limited and part-time consultant to the company. He consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.