



# ASX ANNOUNCEMENT

23 April 2010

## ABOUT CARPENTARIA:

Carpentaria is an exploration company focused on discovering base, precious metals and bulk commodities in eastern Australia. The company holds 100% owned tenements in NSW and Queensland and also has a number of farm-in deals. Most tenements have known mineralised systems and are being explored using modern, efficient technologies. The company currently has interests in iron ore, tin, gold, copper and coal exploration projects

## CARPENTARIA'S AIM:

With a strong geo-scientific team discover or acquire a strong cash flow generating mining operation

## DISCOVERIES TO DATE:

Hawsons Iron Project - NSW  
Euriowie Tin Project - NSW

## Capital Structure:

Ordinary Shares 68,000,000  
Total Options 21,447,415

## Major Shareholder:

Giralia Resources 10%

## Financial

Cash and deposits  
A\$2.2 million as at 31 Dec 2009

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PO Box 1019  
Spring Hill QLD 4004  
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For further information  
contact:

Nick Sheard  
Executive Chairman  
Phone: 07 3161 3801

The Announcements Office  
ASX Limited  
4<sup>th</sup> Floor, 20 Bridge Street  
Sydney NSW 2000

Dear Sir/Madam,

Please find attached for release to the market a copy of an investor presentation delivered by the Company's Executive Chairman this week.

Yours faithfully,

Chris Powell  
Company Secretary



# CARPENTARIA EXPLORATION LIMITED

## Disclaimer



*This presentation has been prepared by the management of Carpentaria Exploration Limited (CAP) for the benefit of analysts, brokers and investors and not as specific advice to any particular party or persons. The information is based on publicly available information, internally developed data and other sources. Where an opinion is expressed in this presentation, it is based on the assumptions and limitations mentioned herein and is an expression of present opinion only. No warranties or representations can be made as to origin, validity, accuracy, completeness, currency or reliability of the information. CAP disclaims and excludes all liability (to the extent permitted by law) for losses, claims, damages, demands, costs and expenses of whatever nature arising in any way out of or in connection with the information, its accuracy, completeness or by reason of reliance by any person on any of it. Where CAP expresses or implies an expectation or belief as to the success of future exploration and the economic viability of future project evaluations, such expectation or belief is expressed in good faith and is believed to have a reasonable basis. However, such expected outcomes are subject to risks, uncertainties and other factors which could cause actual results to differ materially from expected future results. Such risks include, but are not limited to, exploration success, metal price volatility, changes to current mineral resource estimates or targets, changes to assumptions for capital and operating costs as well as political and operational risks and governmental regulation outcomes. CAP does not have any obligation to advise any person if it becomes aware of any inaccuracy in or omission from any forecast or to update such forecast.*



# ACHIEVEMENTS



## IPO NOVEMBER 2007

- Explored / drilled in Queensland and NSW

## DISCOVERIES :

- Large magnetite deposit - Hawsons – Possible company maker
- Tin / tantalum deposit – Euriowie – Potentially good cash flow generator

## LEVERAGED OPPORTUNITIES :

(Partners spending on Carpentaria projects)

	<i>Expenditure</i>	<i>Residual (CAP)</i>
➤ Iron : Hawsons (Bonython Metal Group)	\$28.0m + \$53.0m cash	20%
➤ Gold : Glen Isla (Ramelius Res. Ltd.)	\$1.0m + BFS	25%
➤ Iron : South Dam (Bonython Metal Group)	\$1.95m	20%
➤ Coal : Hughenden (Chairmen 1 Pty Ltd)	\$2.0m	20%
➤ Copper/Gold : Mt Agate (ActivEx Ltd)	\$0.75m	25%



# COMPANY SNAPSHOT



**ASX :** CAP and CAPO

**FINANCIAL – At 20th April 2010**  
**Cash A\$2.8 million**

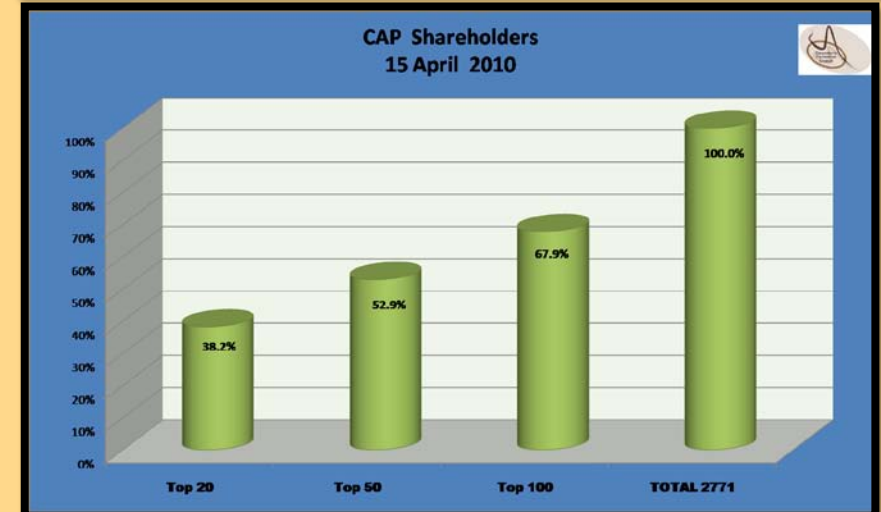
## ISSUED CAPITAL

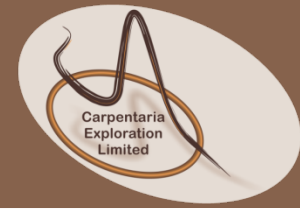
**68.0 m shares**  
**Listed options 21.4 m**  
**(due 30<sup>th</sup> June 2010 @ 30cents)**

## LARGEST SHAREHOLDER

**Giralia Resources NL : 10.5%**  
**Directors : 4%**

**CAPITALISATION - 22<sup>nd</sup> April 2010**  
**Issued Capital \$29.6 million**





# BOARD AND SENIOR MANAGEMENT

## **NICK SHEARD – EXECUTIVE CHAIRMAN**

Extensive global exploration experience – VP Exploration Inco Ltd 2003 to 2007. Substantially increased company reserves / resources , world class nickel discoveries – company taken over U\$18B. GM Exploration for MIM 2001 to 2003, company taken over A\$3.5B.

## **MIKE CHESTER - DIRECTOR**

Over 24 years of experience in stock-broking, investment banking and as a mining analyst.

## **STAN MACDONALD - DIRECTOR**

Long involvement in exploration, Major shareholder and Director of Giralia, U308 Limited, and Zinc Co Australia Limited

## **BOB HAIR - DIRECTOR**

Over 19 years' experience in the resources sector as a commercial lawyer and Manager, currently Company Secretary to two public companies

## **DOUG BREWSTER – EXPLORATION MANAGER**

Geologist with 20 years Australian and International mineral exploration experience, and an Eastern Australian exploration specialist.



# EXPLORATION PORTFOLIO

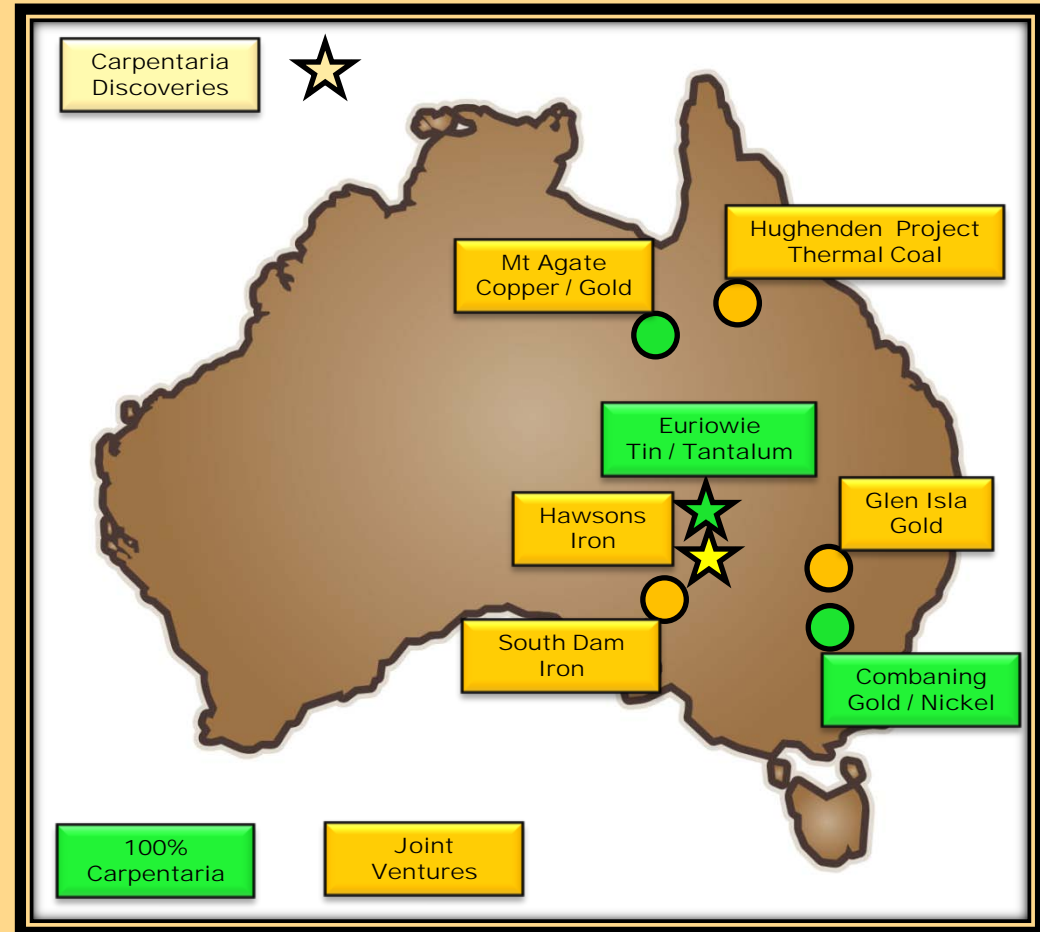


## CARPENTARIA'S AIM:

- Strong geo-scientific team focused on discovery and developing a profitable mine to start a cash flow

## RESULTS TO DATE :

- Discoveries :
  - Hawsons Iron Project
  - Euriowie Tin Project



# BROKEN HILL PROJECTS Overview



## HAWSONS IRON PROJECT (Part JV, part 100% CAP)

➤ Large magnetite discovery

### Exploration Target<sup>1</sup>

**3.5 – 5.8 Billion Tonnes**

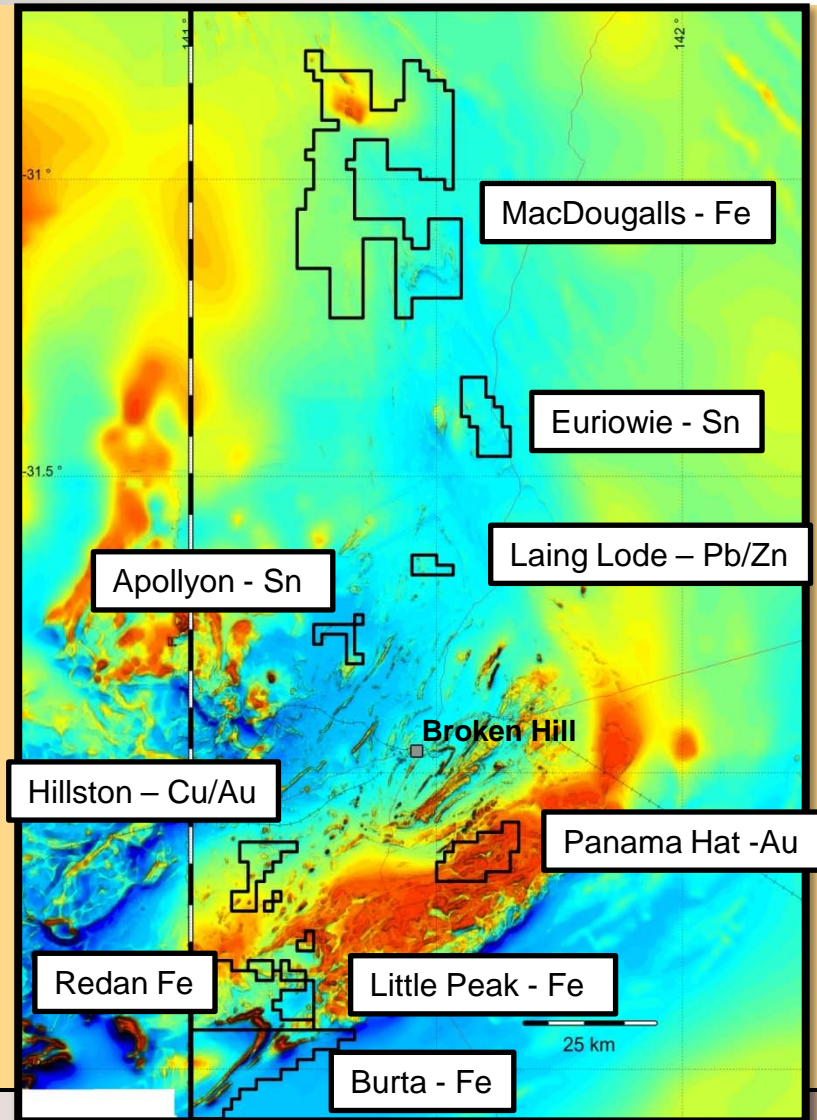
18 – 20% DTR; Fe 69 – 71%:  
assuming 42 – 46 strike km; to 250m vertical

## EURIOWIE (100% CAP)

➤ ore grade surface tin discovered  
inc' :

**1m @ 1.6% Sn**

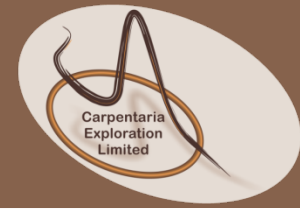
**3m @ 0.6% Sn**



<sup>1</sup> The potential quantity and grade of the exploration targets is conceptual in nature and there has been insufficient exploration to define a Mineral Resource. It is uncertain if further exploration will result in the determination of a Mineral Resource.

# HAWSONS IRON PROJECT

## Location



### ➤ Close to infrastructure

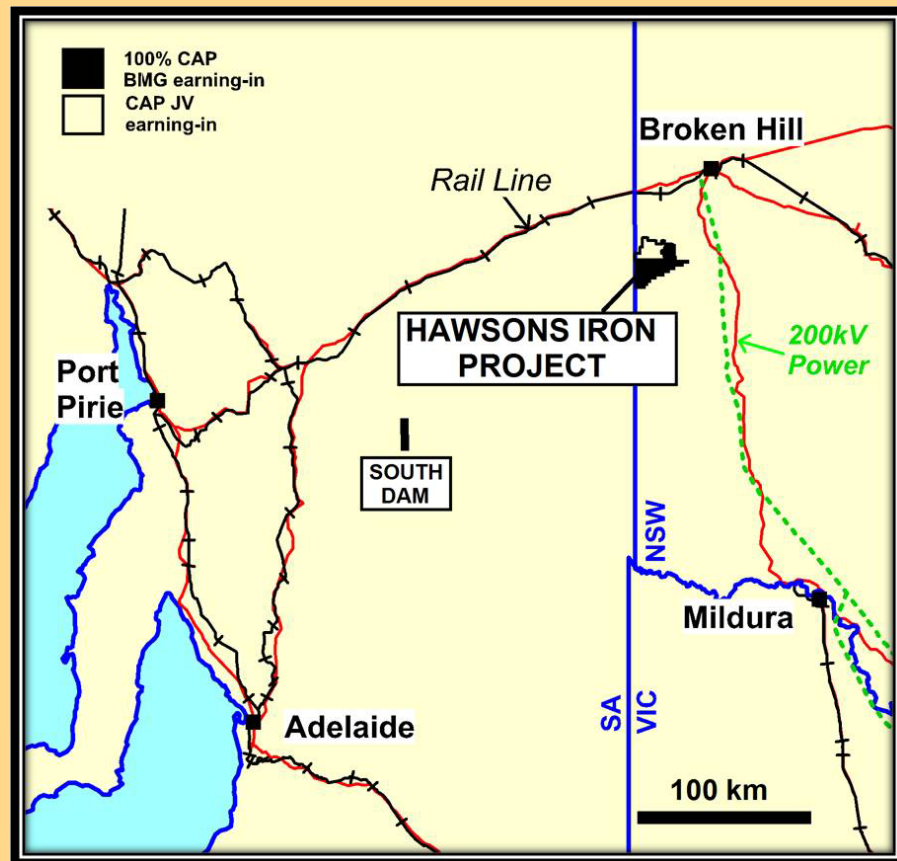
- 60 km SW of Broken Hill  
- mining culture / work force
- 30 km to rail line  
(Adelaide or Port Pirie)
- 30 km to main roads
- 30km to NSW power grid
- No Native Title

### ➤ 3 Exploration Licences

- 510 sq kms inc' :
  - 330 sq kms – CAP 100%
  - 180 sq kms – JV

### ➤ Perilya Deal

- \$0.825m to earn 51%
- + \$1.0m to earn 75%
- If Perilya does not contribute then revert to 1.5% NSR

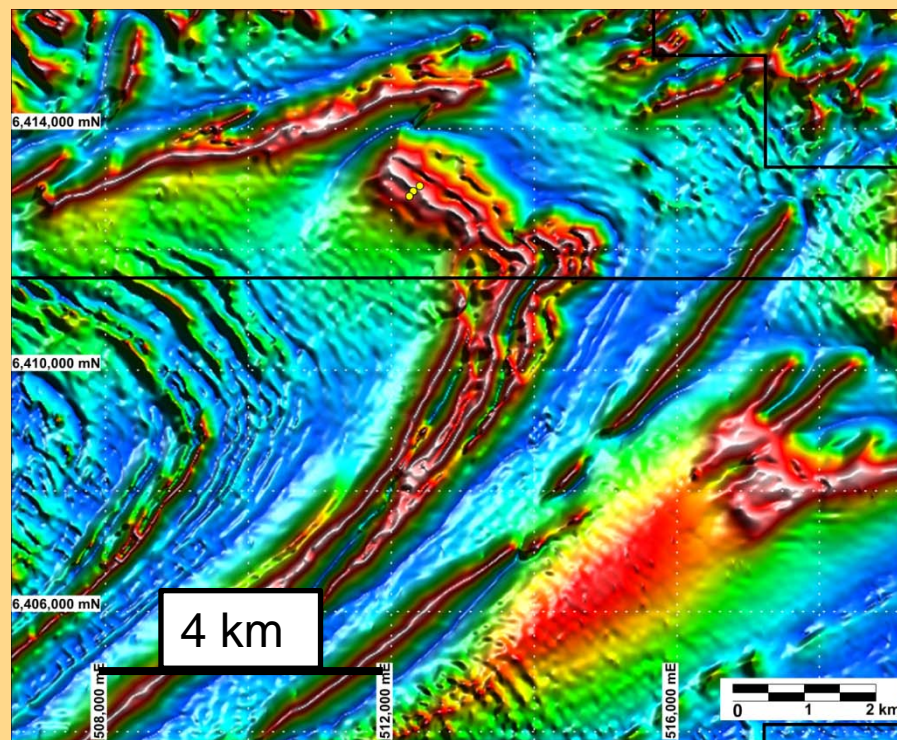


## Airborne Magnetics

### *Exploration Target<sup>1</sup>*

**3.5 to 5.8 billion tonnes**

- 18 - 20% magnetite DTR
- 69 -71% Fe concentrate grade
- 42.8 to 46.4 km strike length
- 250 m depth



RTP, Tilt Processed Magnetics

<sup>1</sup> The potential quantity and grade of the exploration targets is conceptual in nature and there has been insufficient exploration to define a Mineral Resource. It is uncertain if further exploration will result in the determination of a Mineral Resource.



# HAWSON DEAL (100% owned part)



## Bonython Metal Group Ltd (BMG)

### ➤ Stage 1 :

- Cash to CAP **\$5.0m**  
(Incl' non refundable paid **\$1.0m**)
- Exploration funding **\$8.0m**
- BMG vests **40%**

### ➤ Stage 2 :

- Cash to CAP **\$25.0m**
- BMG vests **51%**

### ➤ Stage 3 :

- Feasibility Study costs ~ **\$20.0m**
- On completion cash to CAP **\$23.0m**
- BMG vests **80%**

➤ CAP has free carried to production of 20mtpa

## Value :

- No script issued
- Project deal only
- Cash to CAP  
Total **\$53.0m**
- Free Carried
  - 20% mine costs not required to fund
- CAP undertakes the work

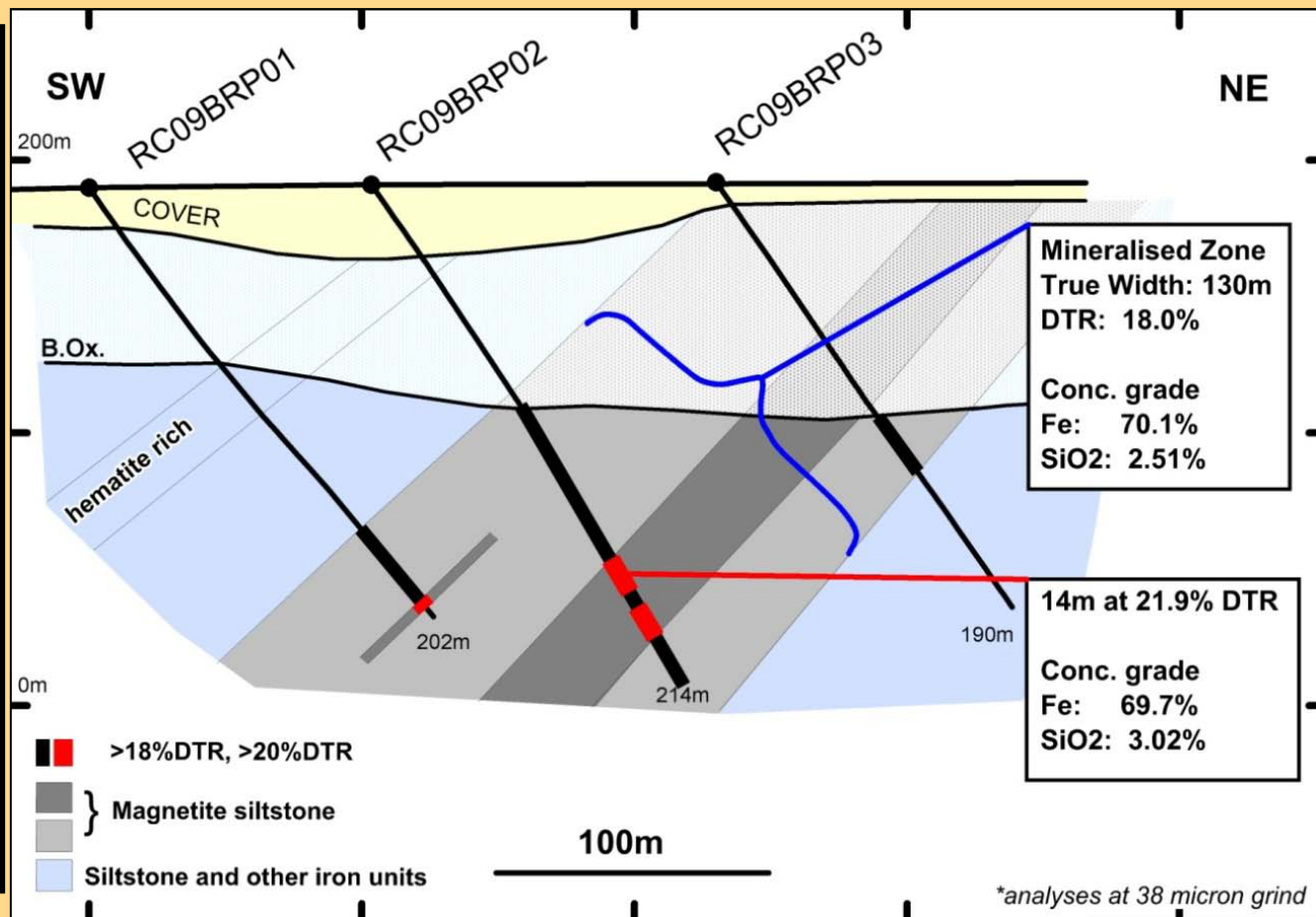


# CROSS SECTION – RC DRILLING JULY 2009



## RESULTS :

- Thick units encountered (+ 130 m true width)
- Open at depth
- Excellent concentrate
- Low deleterious elements
- Soft siltstone
- Significant strike length of similar material



# HIGH LEVEL CONCEPT STUDY



## CONCEPT STUDY\*

- **Mining costs inc' overburden** **A\$7.20/t**
  
- **Operating costs**
  - **Concentrator (slurry to BH)** **A\$7.00/t**
  - **Pellet Plant BH** **A\$6.55**
  
- **Rail Adelaide Pirie** **A\$27/t**  
**A\$16/t**
  
- **Port Charges** **A\$12/t**

## Base line prices :

**Fines ~ A\$92/t**

**Pellets ~ A\$207/t**  
(high grade > 68% Fe)

At A\$0.87 to US\$

*\* Studies by R. Koenig – independent mineral processing engineer's report*



## AGGRESSIVE EXPLORATION CAMPAIGN

- Mar / Apr – Detailed ground magnetics
  - assist defining targets
- Apr – Drilling all Redan magnetite targets
  - possibly higher grade
  - thickness of magnetite sources
- May – Drilling Burta targets
- June – Resource drilling on best target
- July – Pre-feasibility study

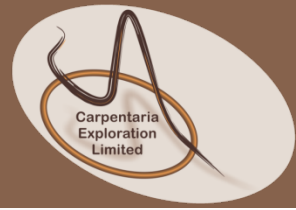
## ESTIMATE :

- 7,000m of drilling - RC and Diamond



# SUMMARY

## Great Potential – Attractive Project



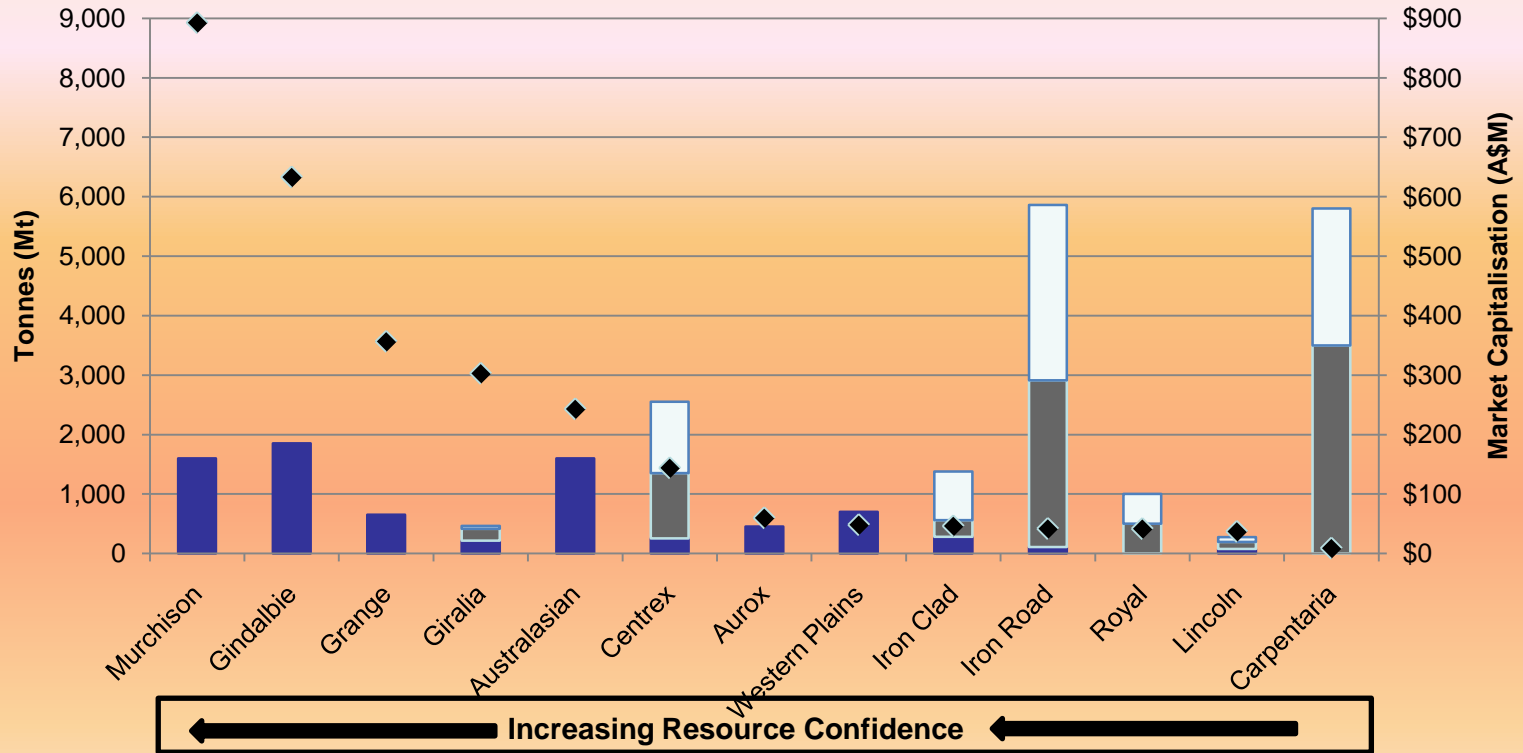
- **Close to infrastructure and work force**
- **Large tonnage**
- **No Native Title**
  - **rapid start up**
- **High Fe Concentrate - 69% – 71% Fe**
- **Low impurities - 2.4% SiO<sub>2</sub>, 0.004% P,**
- **Efficient, low cost open cut - Strip ratio 1.6 :1**
- **Soft host and soft ironstone**
  - **low cost mining methods**
- **Low power requirements – grinding / concentrator**



# PEER COMPARISON



## Australian Iron Ore Peer Comparison

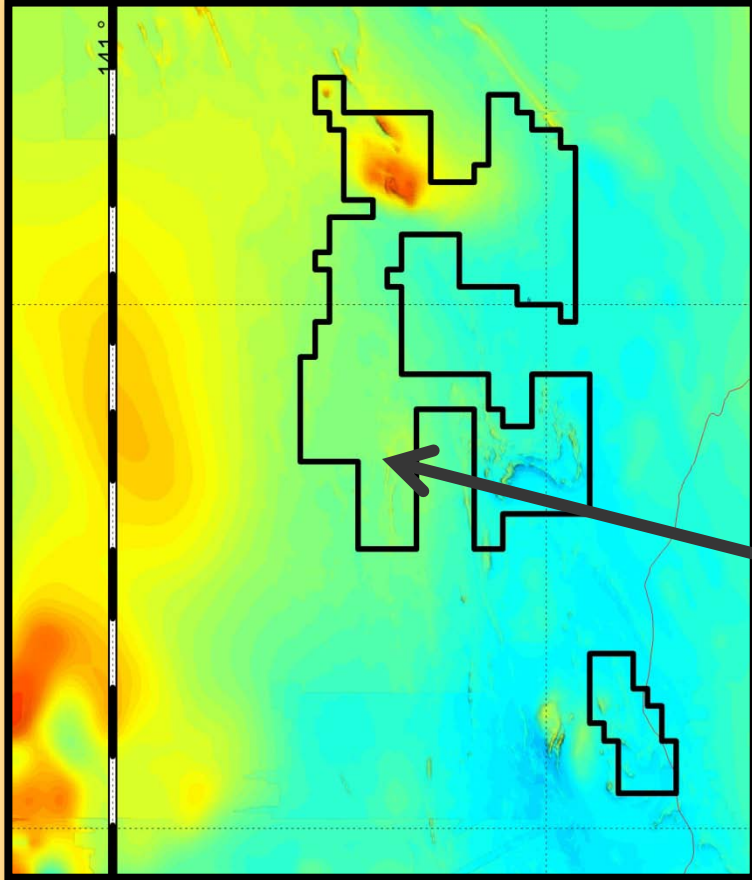
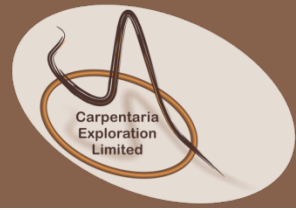


Sources: at 9 February, 2010 \*\* Resources compiled from data on the following websites  
[www.mml.net.au](http://www.mml.net.au); [www.gindalbie.com.au](http://www.gindalbie.com.au); [www.giralia.com.au](http://www.giralia.com.au); [www.grangeresources.com.au](http://www.grangeresources.com.au);  
[www.austresources.com.au](http://www.austresources.com.au); [www.centrexmetals.com.au](http://www.centrexmetals.com.au); [westernplainsresources.com.au](http://westernplainsresources.com.au)  
[www.aurox.com.au](http://www.aurox.com.au); [www.ironcladmining.com.au](http://www.ironcladmining.com.au); [www.ironroad.com.au](http://www.ironroad.com.au);  
[royalresources.com.au](http://royalresources.com.au); [www.lincolnminerals.com.au](http://www.lincolnminerals.com.au); [www.carpentariaex.net.au](http://www.carpentariaex.net.au)

- Exploration Target Range
- Resources \*\*
- ◆ Market Capitalisation



# NEW IRON PROVINCE ? MacDougalls new ELA



## Recon' Results :

**Niton Results ~ 53% Fe  
(No magnetite)  
Awaiting assays**



**Exploration :  
Mapping / Sampling in July / Aug**

**Iron stone ridge**



# EURIOWIE TIN PROJECT (100% CAP)



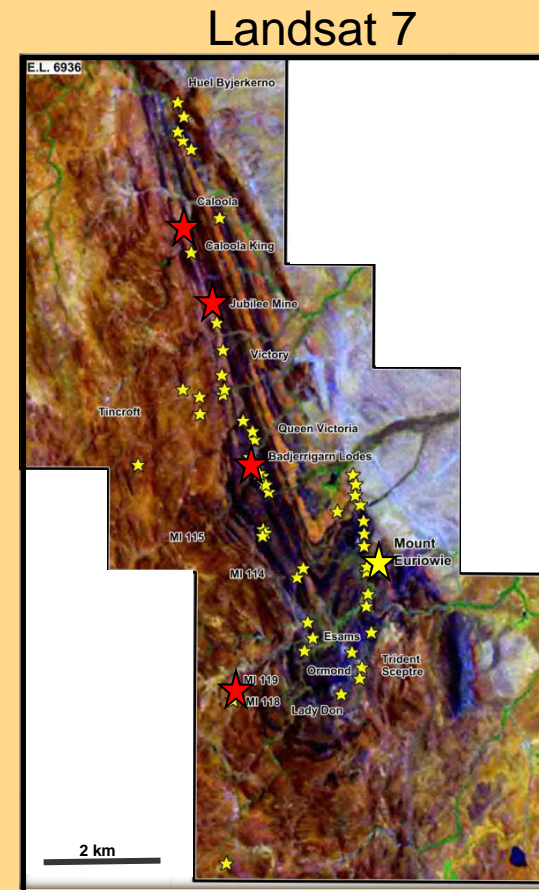
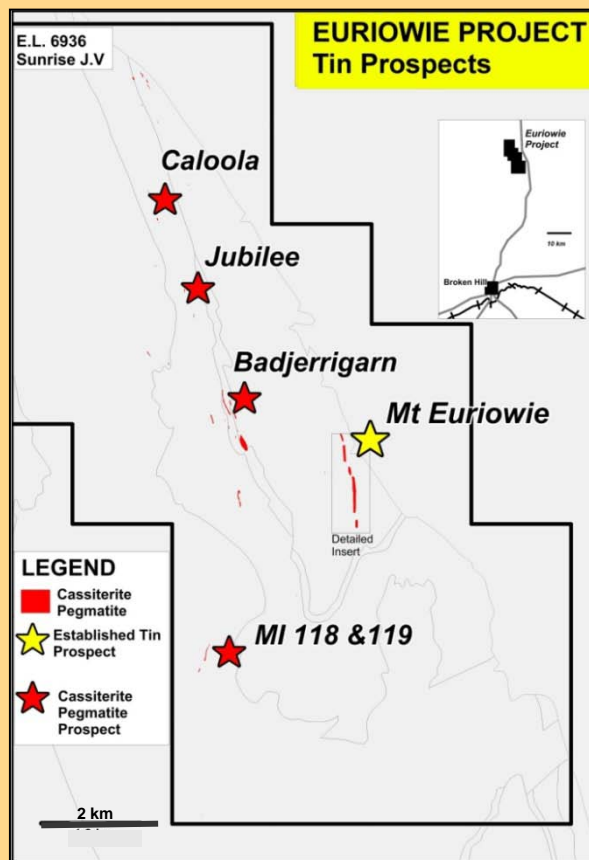
## LOCATION :

- 60 kms North
- Close to accessible infrastructure including :
  - Sealed road 5 kms
  - Rail Line 60 km
  - Grid Power 1km
  - Port – 400 km

## POTENTIAL :

- Coarse grained cassiterite (tin oxide)
- Open cut mining
- At surface
- Gravity separation on site
- Produce high grade con'
- Tantalum credits ?

*Tin price April 2010  
~ U\$19,000 / t*



**Tenement Tin Occurrences**



# TIN FACTS AND FIGURES

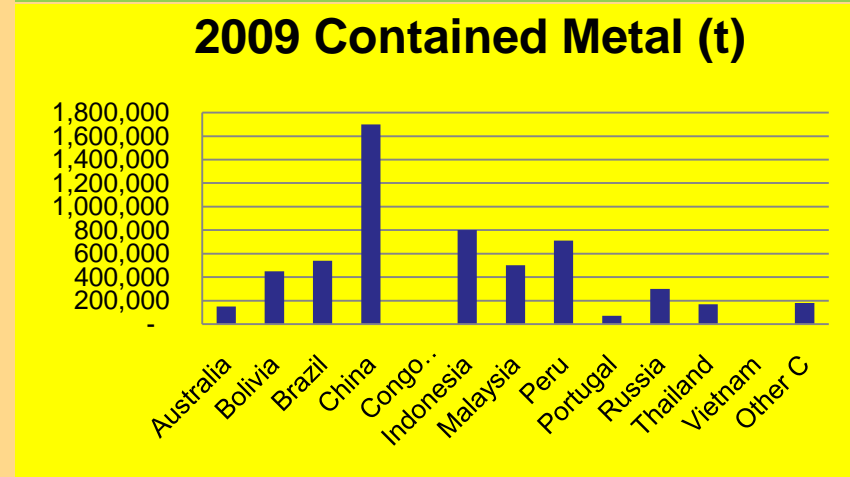
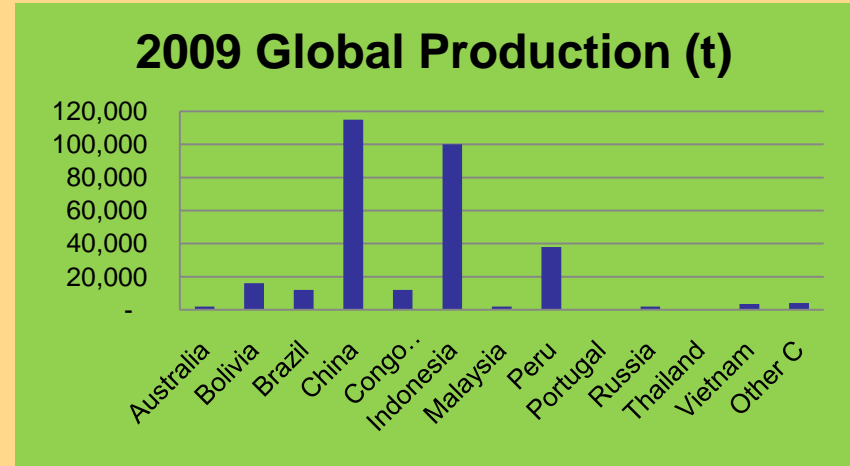


## TIN MAJOR USES :

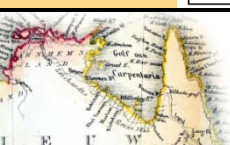
- in solder – restrictions on lead usage
- tin plate
- tin-niobium alloy - superconductive at low temperatures, generates enormous field strength but uses practically no power

## OCCURRENCE TYPES :

- Cassiterite – (SnO<sub>2</sub>) – most common
- Stannite – (Cu<sub>2</sub>FeSnS<sub>4</sub>)



Source – USGS :  
[minerals.usgs.gov/minerals/pubs/commodity/tin/mcs-2010-tin.pdf](http://minerals.usgs.gov/minerals/pubs/commodity/tin/mcs-2010-tin.pdf)



# PROGRESS TO DATE / EXPLORATION PROGRAM



## PROGRESS :

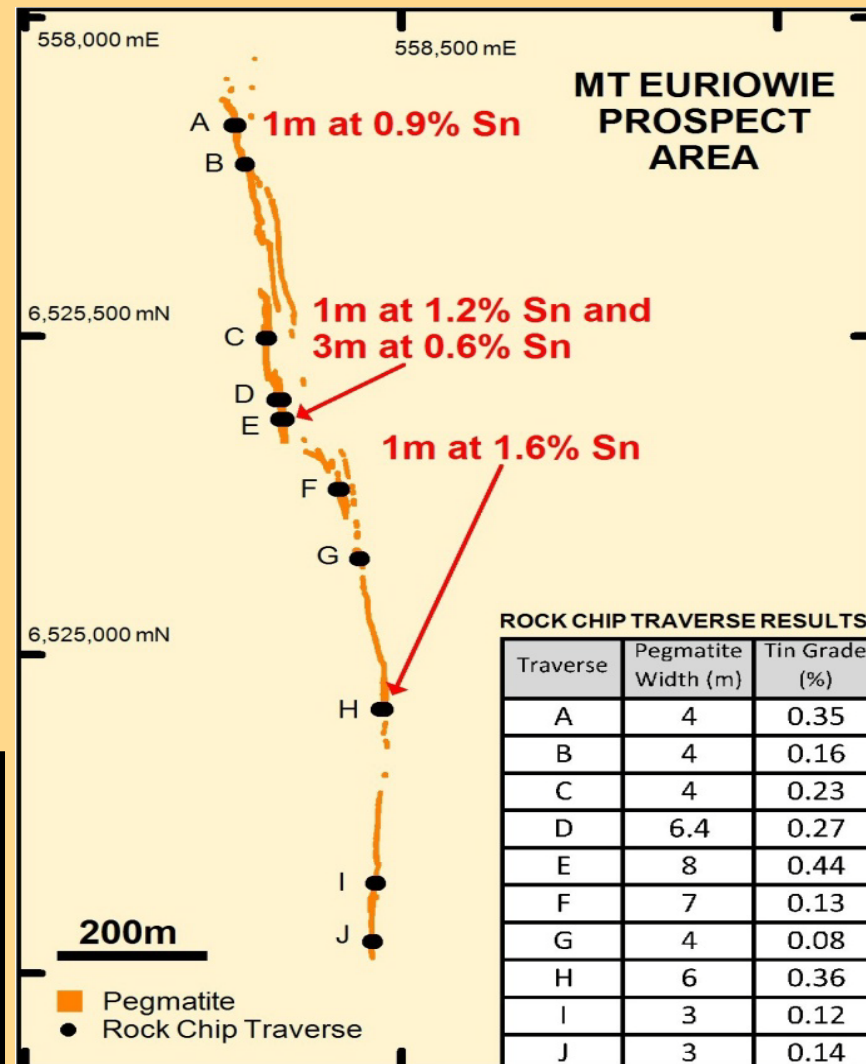
- 1400 m of vein delineated
- Extensive rock chip sampling
- Cassiterite at surface – high grade
- Depth extent unknown
- 4 additional pegmatite systems to test

## EXPLORATION PROGRAM :

- Drill testing depth extent
  - early – mid 2010
  - 700m - \$150,000
- On success
  - bulk sampling
  - resource drilling



Cassiterite boulder



\*Chip traverse results are an average of nominal 1m samples  
 \*Assays method – Metaborate Fusion  
 – Wavelength Dispersive XRF  
 (ALS Chemex XRF15b)

# OTHER PROJECTS

## Drill Ready Targets



### NSW :

- **Panama Hat JV (Gold)**
  - CAP earning 51% spending \$1.0m (3 years)
  - Additional 19% spending \$1.0m
  - Drilling planned May
  - 700m RC - \$150,000
  
- **Combaning 100% CAP (Gold)**
  - Drilling towards end 2010
  - 1000m RC - \$200,000

Old Workings Panama Hat



# OTHER PROJECTS

## Farm out deals – leveraging value



### Glen Isla Gold Joint Venture

- Ramelius Resources Ltd to earn 51% through spending \$1.0m in ground within 18 months
- On completion of BFS Ramelius owns 75% CAP can contribute or dilute.
- Work Program
  - Mar / Apr – Ground geophysics to define targets
  - July / Aug – Drilling to test targets

### South Dam Iron Ore Joint Venture

- Bonython Metals Group Pty Ltd to spend \$1.0m to earn 49%.
- Additional spend of \$0.95m to earn up to 80% at which point CAP can contribute or dilute.
- Work Program
  - Feb/Mar – Mapping, geochemical sampling and drilling

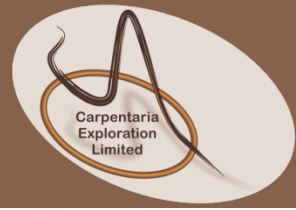


Glen Isla Core



# OTHER PROJECTS

## Farm out deals – leveraging value



### CHINA YUNAN COPPER AUSTRALIA Ltd.

- Waterford - uranium
  - Direct sale - \$20,000 (subject to due diligence)

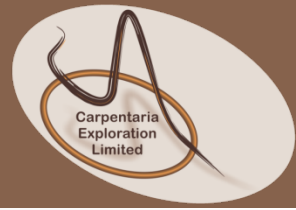
### CHAIRMEN 1 Pty Ltd

- Hughenden Thermal Coal Project
  - \$300,000 cash
  - CAP EPC's merge into larger project
  - Partner funds to resource definition
  - Increase CAP's exposure to coal
  - Due diligence should complete Feb 15<sup>th</sup>
- Work Program :
  - Apr /May drilling - to commence when wet finishes



# 2010 PROPOSED WORK PROGRAM

## Continual News Flow



### Mainly Drilling - \$10.0m program

- **Mar /Apr : Detailed ground magnetics Hawsons**
- **April: RC and diamond drilling magnetite targets at Hawsons**
- **May: RC drilling gold target at Panama Hat**
- **May / June: mapping and drilling tin pegmatites at Euriowie**
- **June / July: follow up resource drilling Hawsons**
- **July / Aug : recon' work Macdougall**
- **Aug: pending drilling results start Hawsons prefeasibility program**
- **Nov / Dec: drilling gold targets Combaning**



# 2010 PROPOSED WORK PROGRAM CONT'D

## Continual News Flow



### Programs funded by third parties

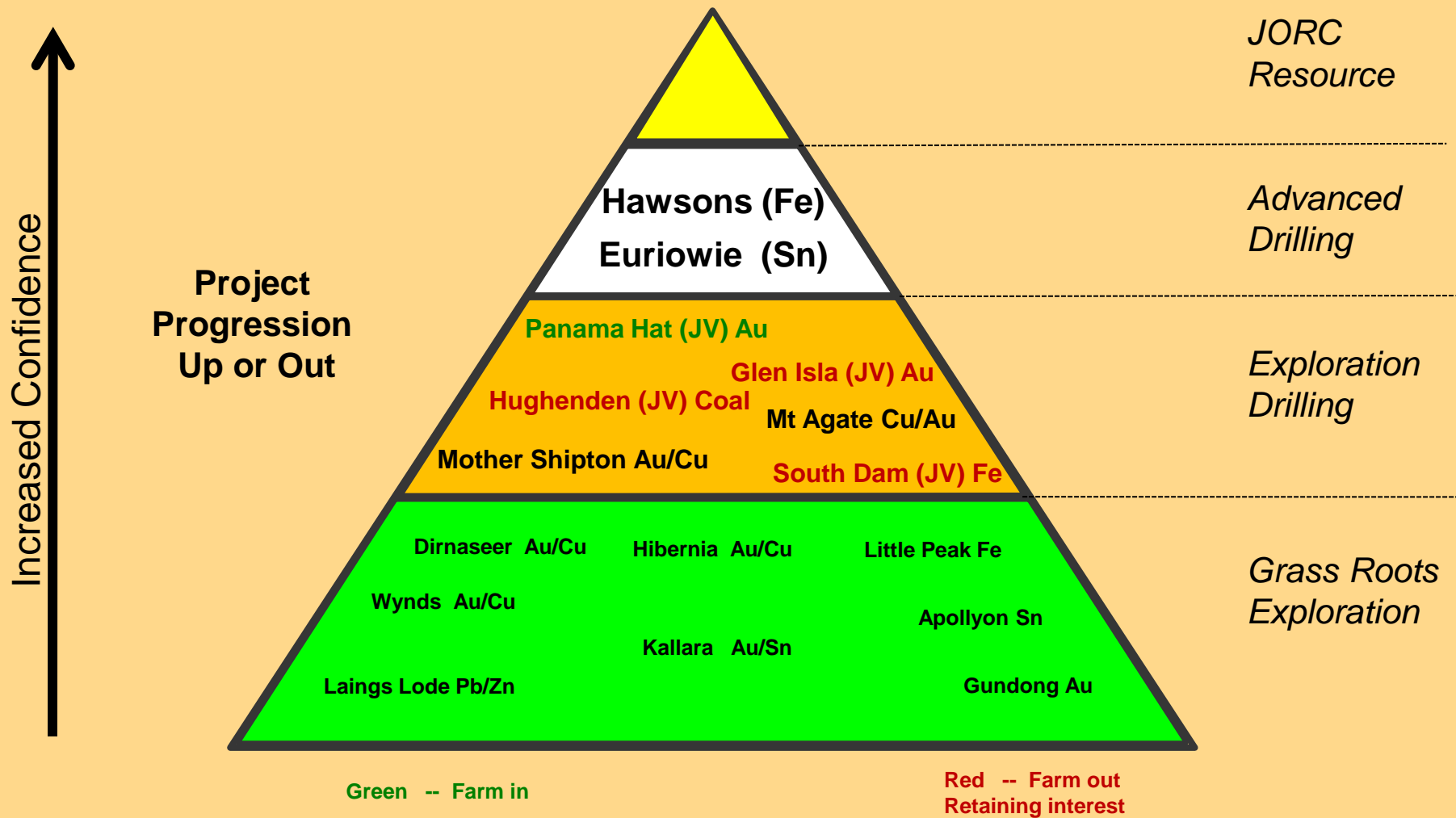
#### JOINT VENTURE PROGRAMS

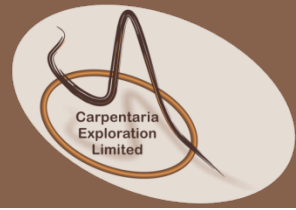
- **Feb / Mar: South Dam Iron JV** mapping, sampling, poss' drilling
- **Apr: Glen Isla Gold JV** – ground geophysics underway
- **Apr: Glen Isla Gold JV** – interpretation and define targets
- **May : Hughenden Thermal Coal JV** – start drilling campaign
- **June / July: Glen Isla Gold JV** – drill gold targets



# SUMMARY

## 2010 Project Pipeline Status





## GROWTH THROUGH SUCCESS

- **Large magnetite iron discovery at Hawsons in NSW**
- **Tin discovery over long strike length at Euriowie**
- **Significant work program for 2010 – news flow from drilling**
- **Farmed out non core projects to focus on priority projects**
- **Aggressive exploration programs by joint venture parties increases chance of success for shareholders**
- **Generating new projects**
- **Experienced geoscientific team providing good results**
- **Committed to exploration / mining**



# CARPENTARIA EXPLORATION LIMITED

## Competent Person Statement



*The information in this presentation that relates to Exploration Results and Resources is based on information compiled by S.N.Sheard, who is a Fellow of the Australian Institute of Geoscientists and has had sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. S.N.Sheard is an employee of Carpentaria and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*





# Carpentaria Exploration Limited

## Nick Sheard - Executive Chairman



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