



# **Zamia** Metals Limited

*Targeting copper, gold & molybdenum deposits*

***CENTRAL QUEENSLAND***

**April 2014**





# Corporate Details

- **Established junior exploration company with strong support from its major Australian and Asian shareholders**

ASX Code: ZGM		Major Shareholders	
Ordinary Shares	475.2m	Brownstone International Pty Ltd	38.6%
Market cap (@ 0.7 cents)	\$3.3m	Qinghai Genlid Mining Investment & Management Co Ltd	18.7%
Cash (31 March 2014)	\$0.84m	China Sun Industry Pty Ltd	7.6%
Top 20 shareholders	81%	West Minerals Pty Limited	3.7%
Number of shareholders	979	International Base Metals Limited	2.9%

Note: Zamia also has 4.3m unlisted options (exercisable @ 5¢, expiring 21 January 2015)

- On 19 March 2014 Zamia announced a renounceable rights issue offer
  - two new shares for every three shares held at 0.6¢ per new share to raise up to \$1.9 million
  - the Company’s two largest shareholders have indicated their intention to subscribe for their full rights (\$1.09 million), representing 57.3% of the rights issue
  - funds raised will be used to fund ongoing exploration activity (including drilling) on the Company’s key projects as well as working capital



# Board and Management

An experienced team with extensive technical and commercial expertise to execute the Company's exploration and development plans



**Richard (Dick) Keevers**  
**Non Executive Chairman**

- Geologist with broad technical and commercial background
- Has participated in a number of significant mineral discoveries
- Extensive experience raising capital for junior resources companies (former executive director and part-owner of a stockbroking firm)



**Ken Maiden**  
**Non Executive Director**

- Geologist with 40 years' professional experience
- Exploration geologist with major resource companies (CSR, MIM)
- Has participated in successful base metal exploration programmes in South Australia, Queensland, Namibia, Botswana and Indonesia



**Qiang Chen**  
**Non Executive Director**

- Mining Engineer with 30 years' experience
- International commodities trader and investor
- Former National Marketing Manager of China Metallurgical Import and Export Corporation Perth Office



# Board and Management



**Andrew Skinner**  
**Non Executive Director**

- Chartered accountant with wide-ranging experience in exploration mining development



**Dr Jiniu Deng**  
**Non Executive Director**

- Geologist with nearly 30 years' experience
- Has led and participated in a number of successful discoveries of lead-zinc, nickel and copper deposits in China



**Jordan Li**  
**Chief Executive Officer**

- 20 years commercial & management experience
- Former Vice-Consul at the Chinese Consulate-General in Perth
- Former Project Manager & Senior Policy Officer in the Department of Premier and Cabinet in Western Australia
- Former Strategy Manager with Fairfax Media

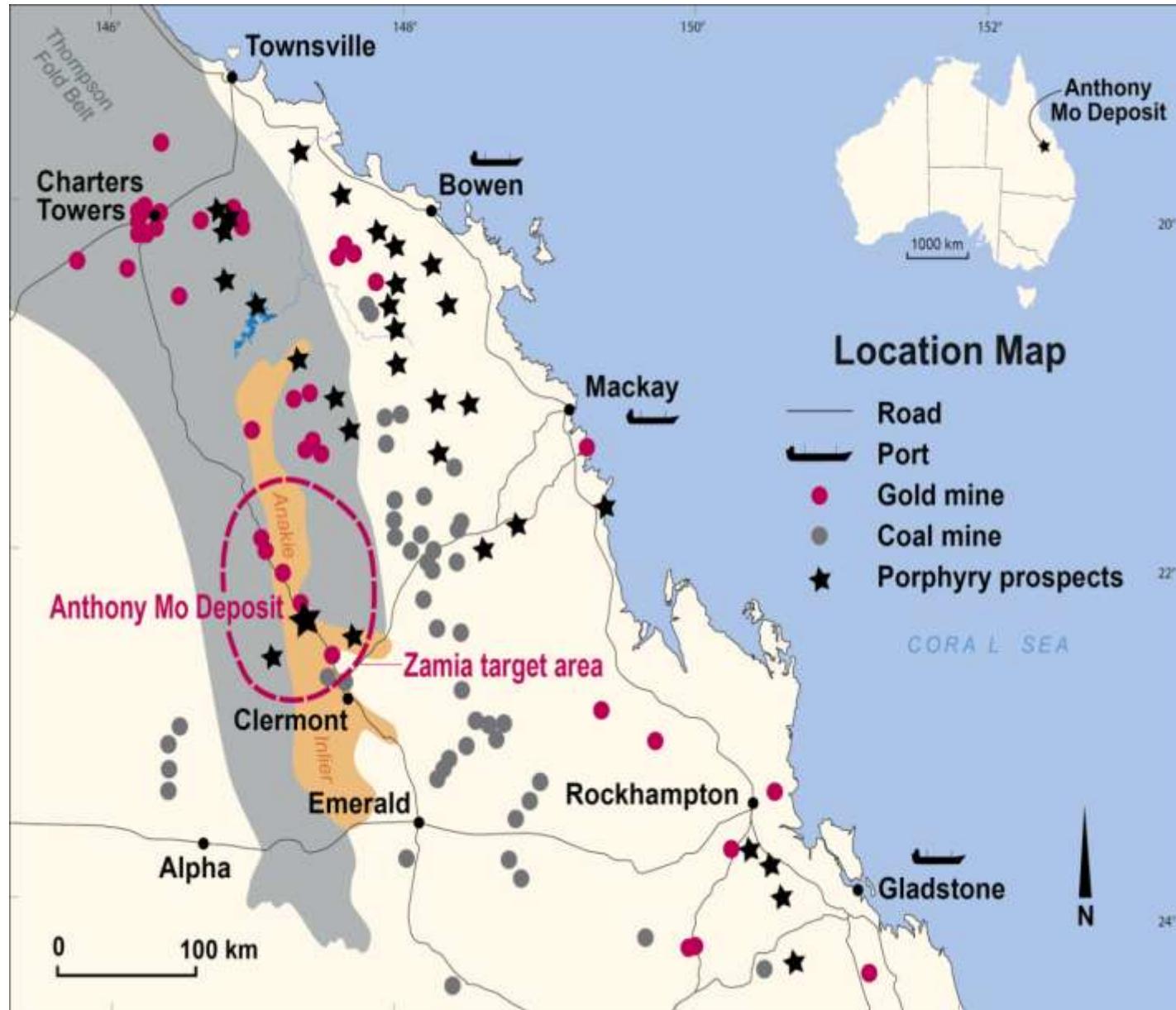


**John Stone**  
**Company Secretary**

- Over 31 years' secretarial experience in the Australian and international corporate markets
- Has been a Director and Company Secretary for a diverse range of private and public listed companies



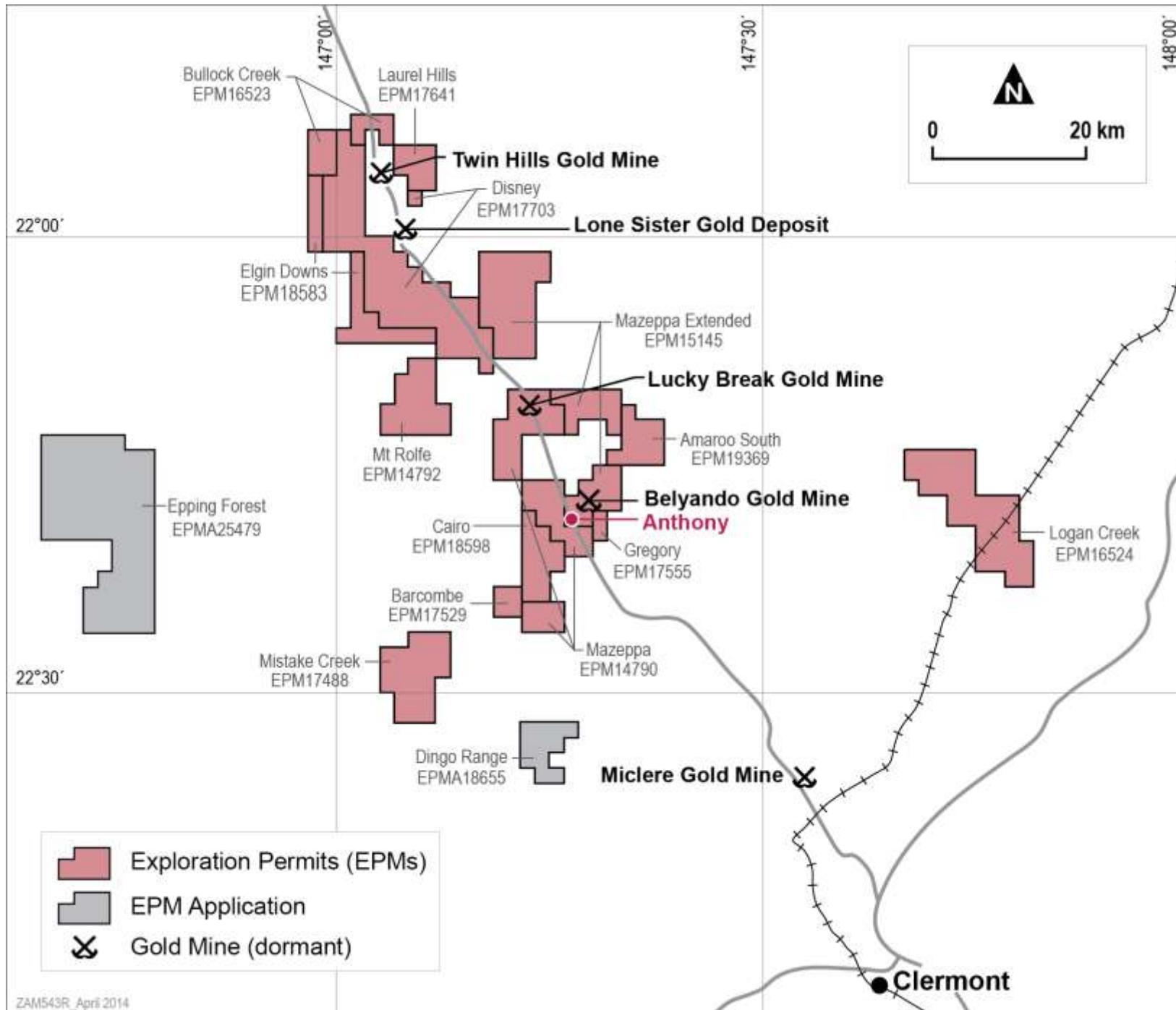
# Location – Central Queensland



- Located in an established gold province with emerging copper, gold and molybdenum deposits
- Good potential for large porphyry copper-gold and epithermal gold deposits
- Multiple operating and former producing gold mines in the surrounding area
- Good access with established infrastructure
- Access to power and water
- No major environmental issues



# Zamia Exploration Tenements

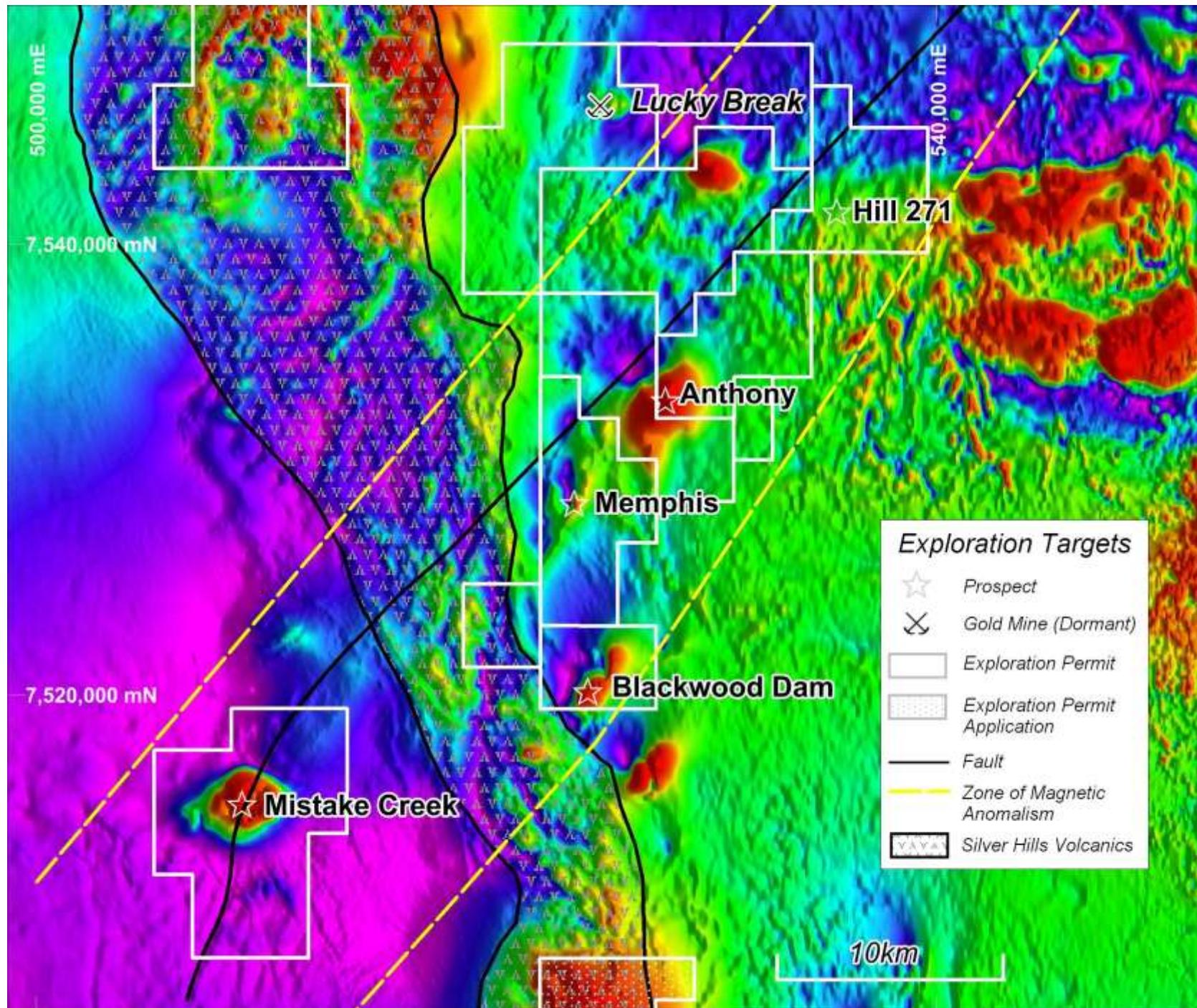


- 14 exploration tenements (EPMs), totalling 1,060 km<sup>2</sup>
- Tenements include post-production gold mines and border known gold deposits
- EPMs positioned along the Drummond Basin margin – most prospective location
- Zamia has been active in the area since 2005 – most experienced explorer along with Evolution Mining (NQM)
- First discovery of major porphyry-style mineralisation (Anthony Mo Deposit, 2008) in the district
- Most prospective ground for new porphyry discoveries located within Zamia EPMs
- Exploration on northern EPMs focussed on epithermal gold, southern tenements targeted for intrusion-related copper-gold-molybdenum

Location of Zamia exploration tenements near Clermont in Central Queensland



# Prominent Prospects



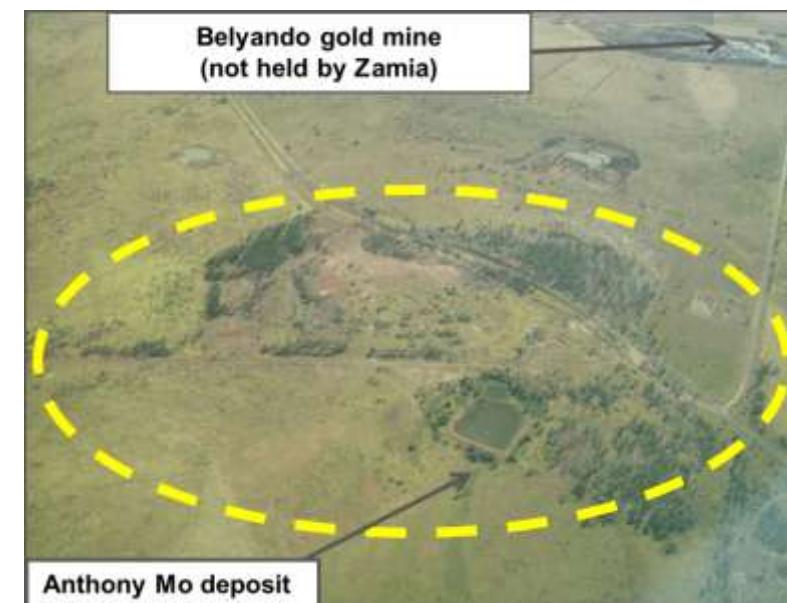
- Central tenements most prospective for porphyry-style and intrusion-related Cu/Mo/Au
- NE-SW trending tectonic structure interpreted to control the intrusion of mineral-rich magmatic bodies
- Evidence of multiple intrusions near the Drummond Basin margin
- Anthony Mo system hosted within one of these magmatic centres
- Significant discovery potential for similar deposits near Anthony and at nearby Zamia projects

*Aeromagnetic image showing magnetic intrusive complexes in relation to Zamia tenements and projects*



# Anthony Molybdenum Deposit (EPM 15145)

- To date over 31,000m of resource and scout drilling has delineated a sizable porphyry-style molybdenum resource from surface to 400m depth
- The inactive Belyando gold mine lies less than 3 km to the northeast of the Anthony deposit
- Zamia will explore recently identified IP anomalies for potential copper-gold-molybdenum



## Inferred Resource estimate

Cut off grade	Sulphide Resource			Transition Resource (partial oxide)			Oxide Resource			Total Resource		
	(ppm Mo)	Tonnes (million)	Mo Grade (ppm)	Contained Mo (million lb)	Tonnes (million)	Mo Grade (ppm)	Contained Mo (million lb)	Tonnes (million)	Mo Grade (ppm)	Contained Mo (million lb)	Tonnes (million)	Mo Grade (ppm)
600	20	800	36	1.3	730	2.1	3.1	660	4.5	25	780	42
400	91	560	112	5.2	540	6.2	17	510	20	114	550	137
200	250	390	215	13	400	11	53	370	43	318	390	269

Inferred Resource estimate upgraded by Dr P Hellman of consultants Hellman & Schofield Pty Ltd, March 2012, reported in accordance with JORC (2004) Code & Guidelines  
 (Note: 400 ppm Mo = 0.04% Mo)

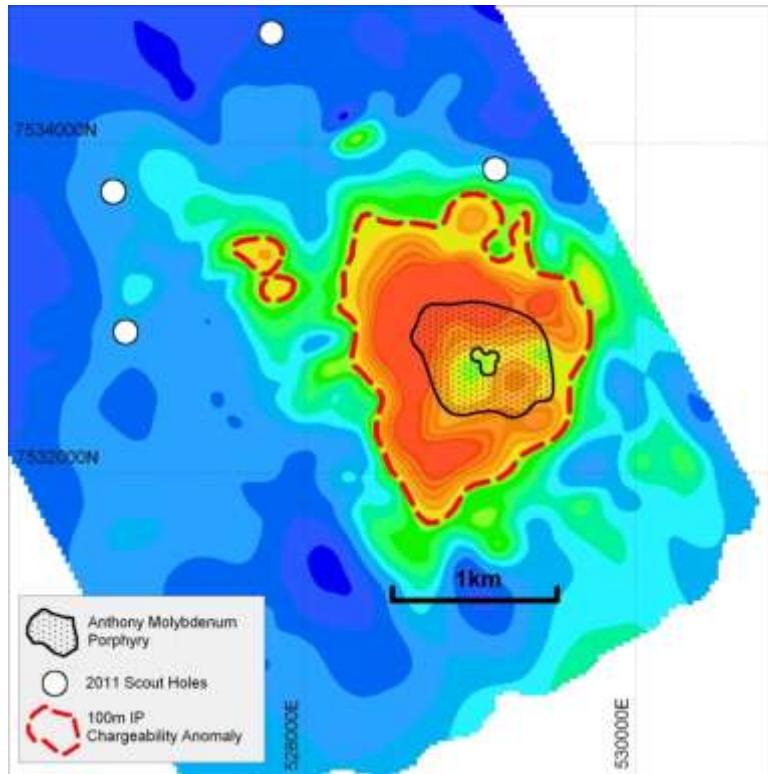
*Note: Figures have been rounded*



# Anthony – Copper Gold Potential

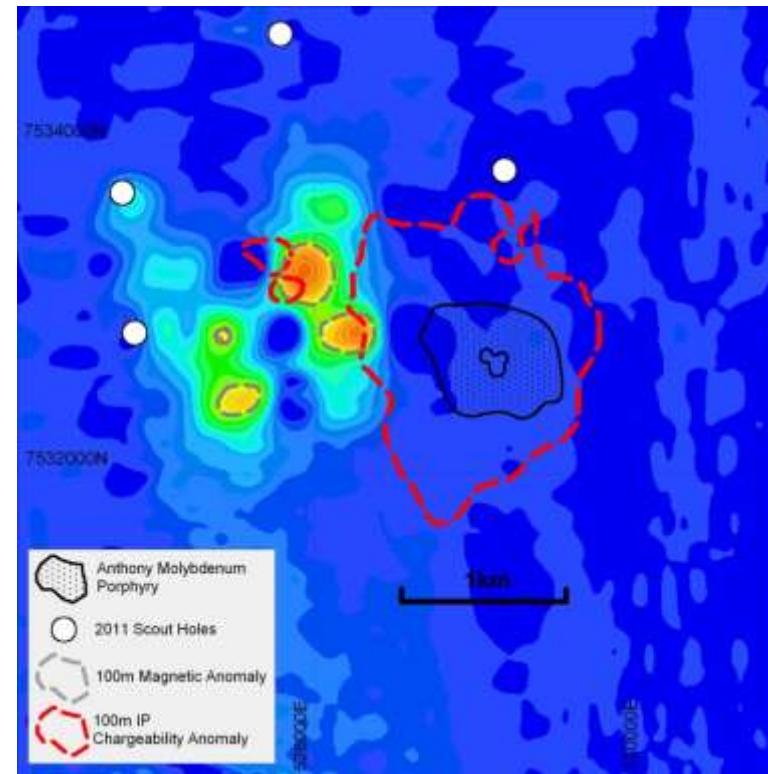
- Presence of the intrusion-related Belyando gold deposit in close proximity to the Anthony Project has encouraged Zamia to continue exploration for gold and copper in the vicinity of the molybdenum resource.
- In October 2013, Zamia completed a 16 km<sup>2</sup> induced polarisation (**IP**) survey targeting copper and gold around the Anthony molybdenum resource and the adjacent Dead Horse magnetic anomaly to:
  - test for potential zones of copper-gold outside the Mo resource; and
  - assist in determining the geological relationships between the Anthony deposit and the adjacent magnetic high anomaly.
- The survey has defined a prominent annular shaped IP response larger than the Anthony molybdenum deposit.
- Zamia intends to start a new drilling programme to test the areas between the limit of the current Mo resource and the outer limit of the IP chargeability response.

# Anthony IP Results – Chargeability and Magnetic Model



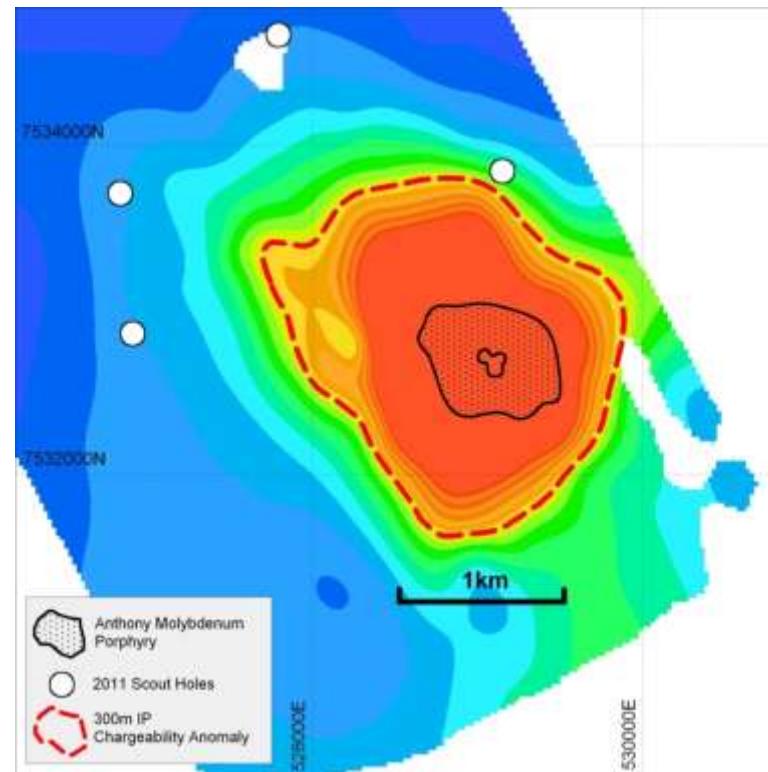
## 100m IP results – chargeability

- Annular IP anomaly surrounding Anthony Mo deposit
- 200m x 400m separate IP high NW of main anomaly



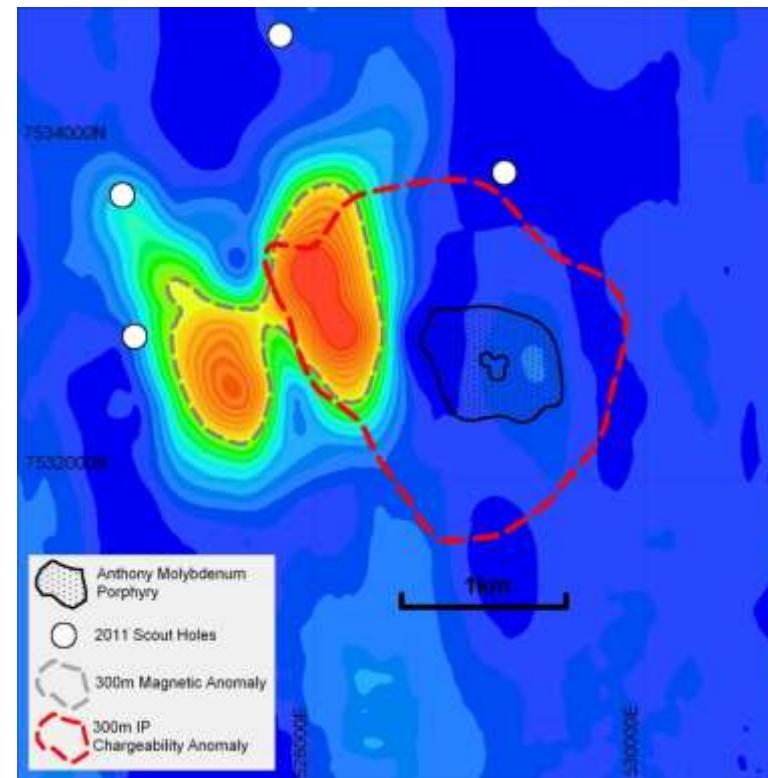
## 100m IP results – magnetic

- Limited overlap of chargeability and magnetic highs near surface



## 300m IP results – chargeability

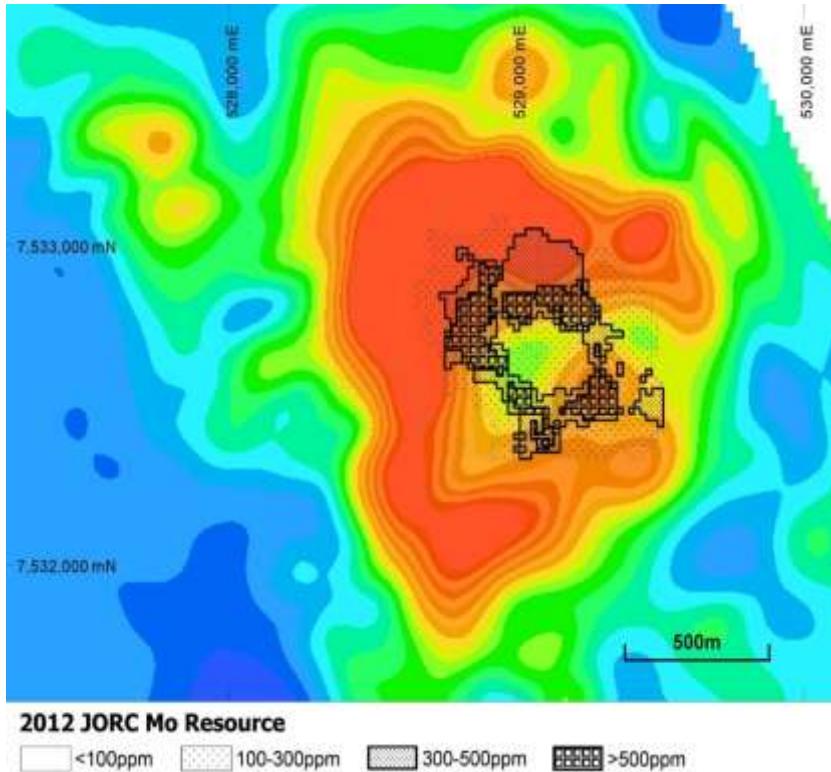
- Increased size of IP response at depth
- Loss of model resolution at depth merges IP highs



## 300m IP results – magnetic

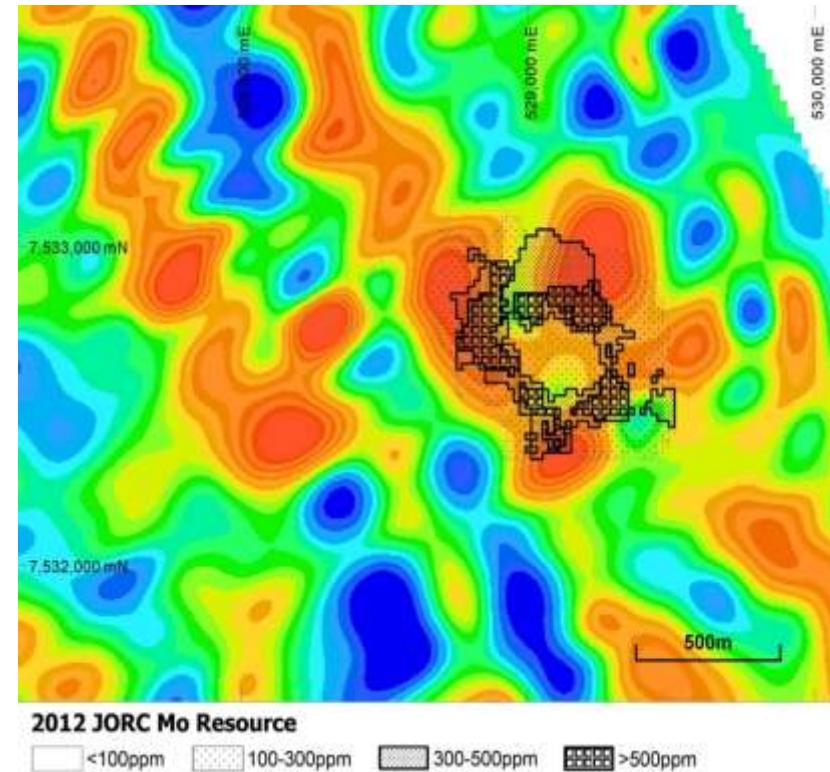
- Significant overlap of chargeability and magnetic high at depth

# Anthony IP Results – Chargeability and Resistivity Model



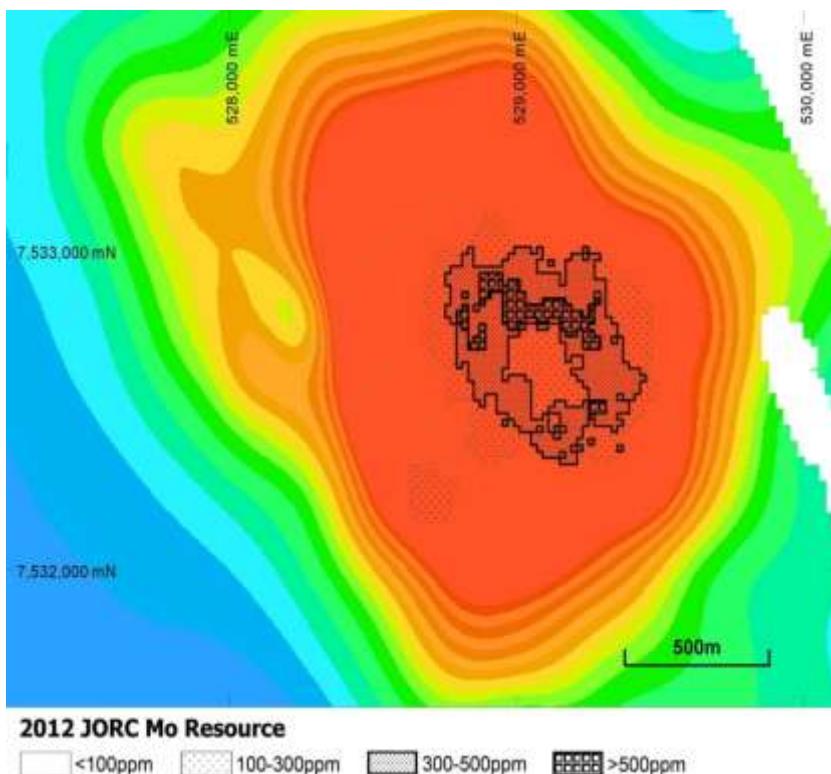
## 100m IP results – chargeability

- Annular anomaly surrounding Anthony Mo deposit
- 200m x 400m separate IP high NW of main anomaly



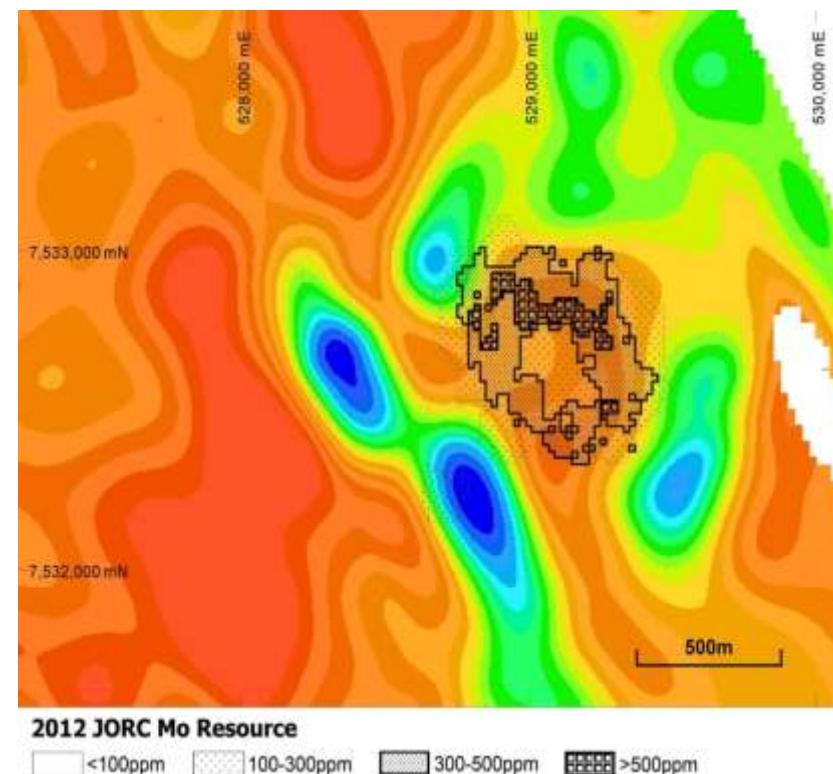
## 100m IP results – resistivity

- Strong sampling bias of IP array near surface
- Anthony Mo resource coincides with resistivity high



## 300m IP results – chargeability

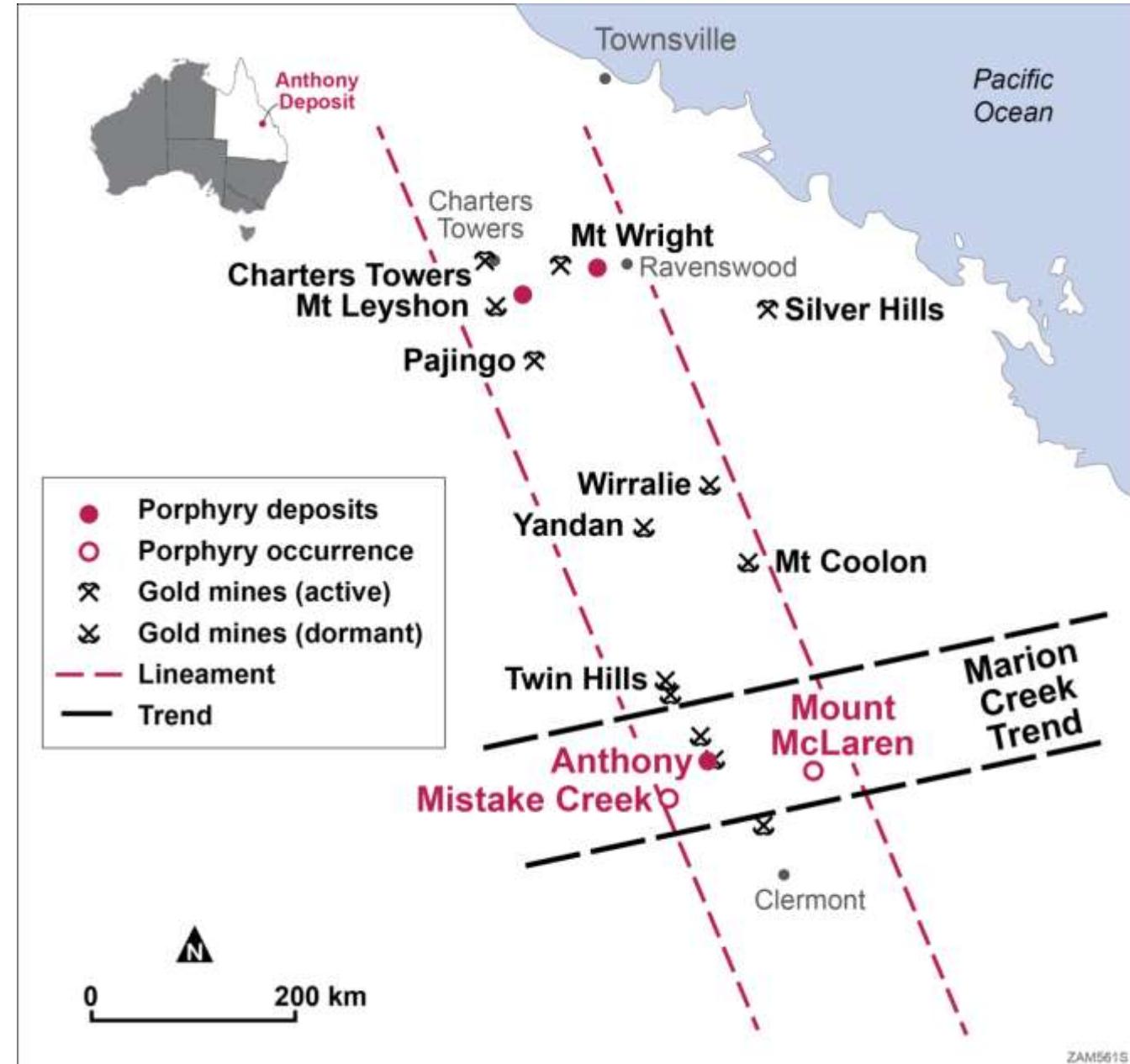
- Increased size of IP response at depth
- Loss of model resolution at depth merges IP highs



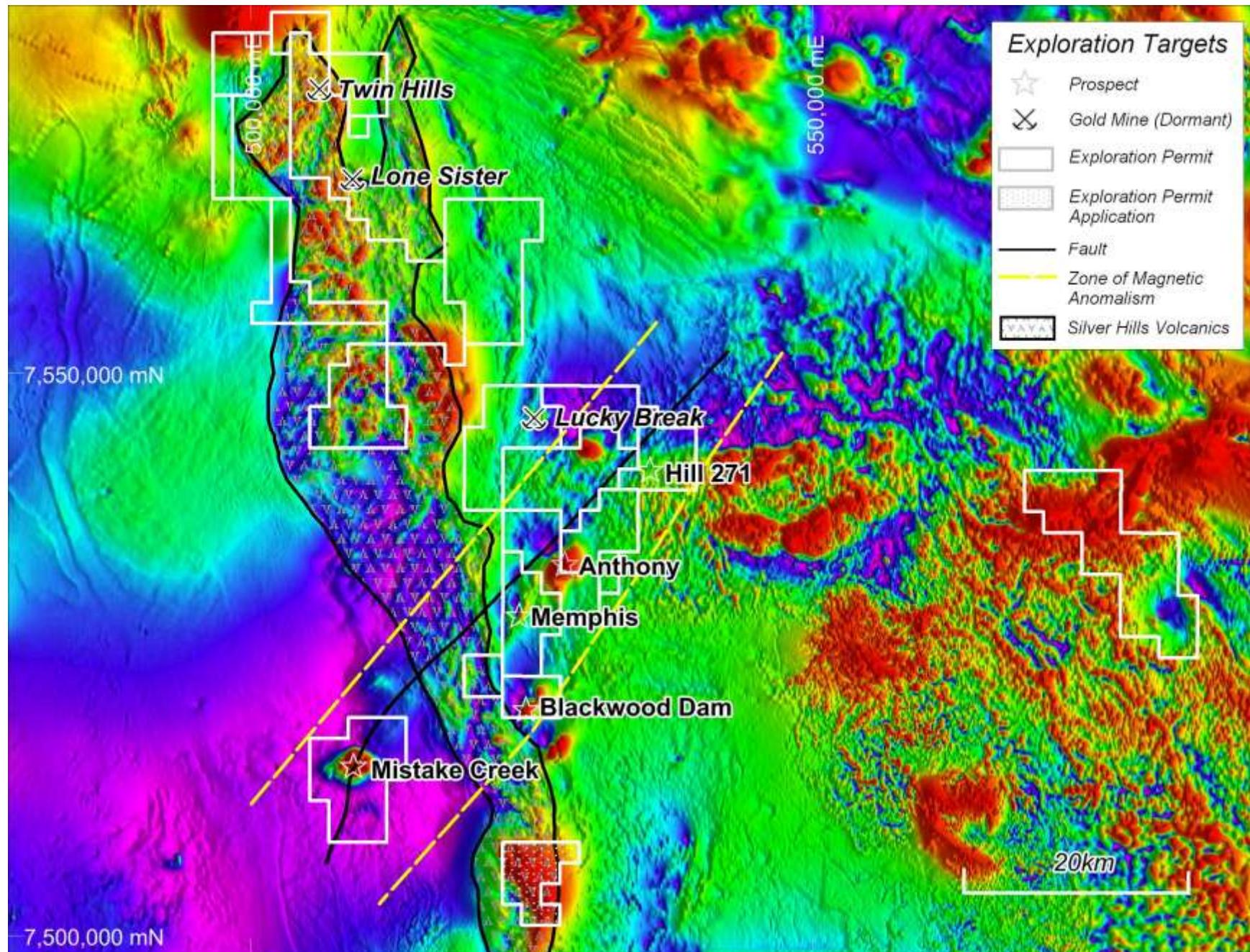
## 300m IP results – resistivity

- Mo resource surrounded by resistivity lows at depth
- Low anomalies may indicate strong hydro-thermal alteration

- The Charters Towers to Clermont belt in Central Queensland has long been recognised as a gold province
- Zamia's discovery of the Anthony deposit demonstrates the potential for major porphyry systems
- Zamia has a large tenement holding in the Clermont District, comprising 1,060 km<sup>2</sup> of tenements with numerous porphyry and epithermal targets
- Multiple operating and post-production gold mines in the Drummond Basin region, including Pajingo (> 3 Moz), Wirralie (0.32 Moz produced), Yandan (0.35 Moz produced), Mount Coolon (0.29 Moz produced) and Twin Hills (resources of 0.39 Moz)



# Regional airborne magnetics – faults and zones

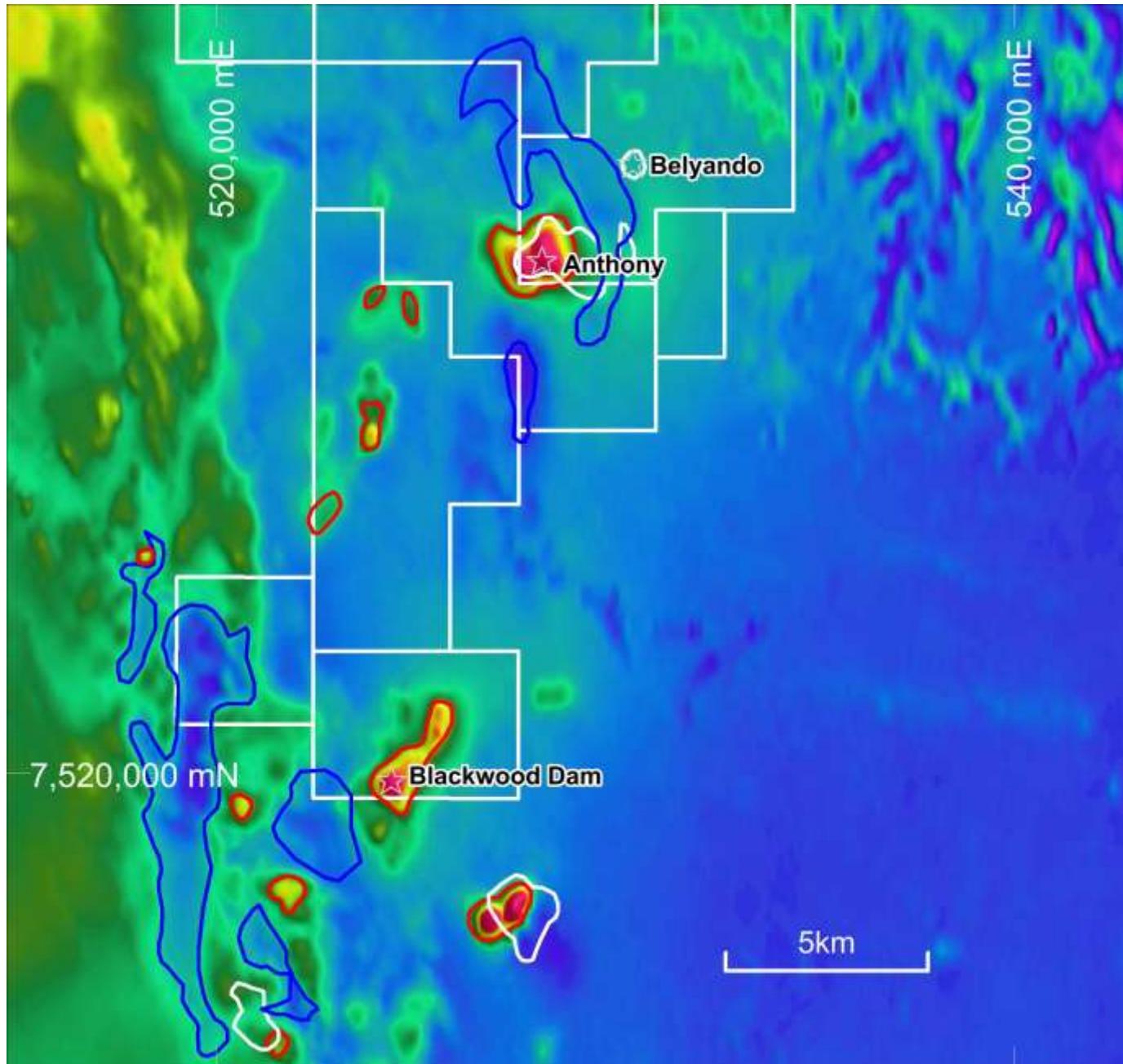


- Zamia tenements located along the prospective Drummond Basin margin
- Northern tenements cover the Silver Hills Volcanics, which host all major known gold deposits in the district
- Southern tenements cover magnetic intrusive complexes prospective for porphyry-style and intrusion related Cu/Mo/Au deposits

*Aeromagnetic image showing dormant gold mines, Zamia tenements and projects*



# Blackwood Dam - EPM 14790



## Exploration Strategy

- Use dipole-dipole IP to test for the presence of sulphide concentrations at depth
- If positive, drill-test the IP anomalies to determine their nature

## Background

- Centred on aeromagnetic high anomalies, Blackwood Dam is located within 10 km of the Anthony Project
- Aeromagnetic high indicates a magmatic complex similar to “Dead Horse” which hosts the Anthony deposit
- Gold Fields Australia drilling (2013) confirmed presence of a magnetic porphyry intrusive
- Target completely covered by younger volcanic rocks – no surface exposure



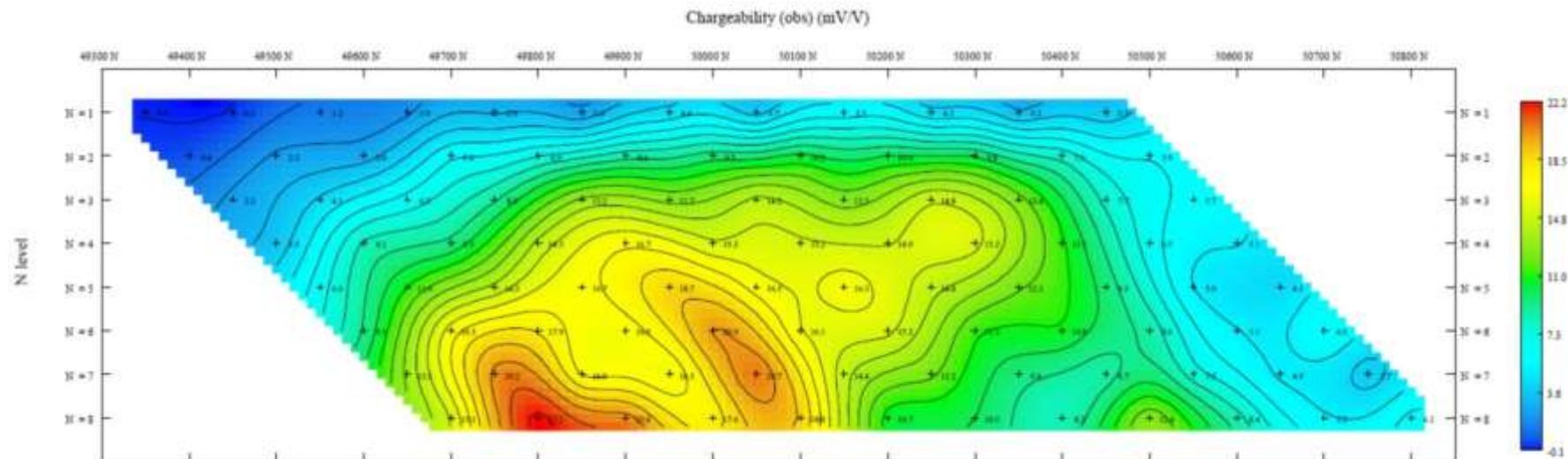
# Hill 271 Prospect (EPM 19369)

## Exploration Strategy

- Zamia intends to test the IP high, with up to two RC percussion drill holes, targeting porphyry-style mineralisation within a depth of 200m from surface.

## Background

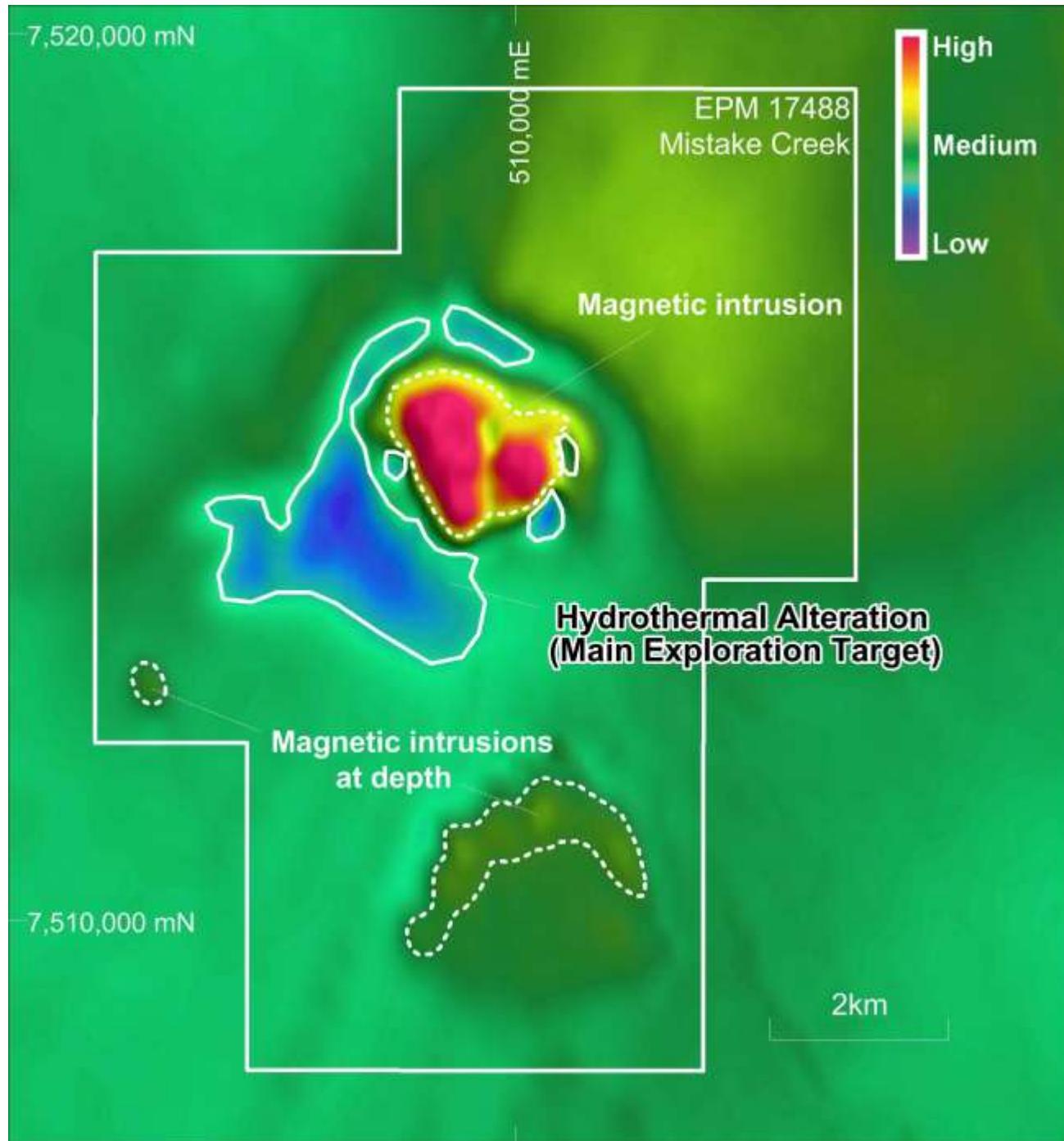
- Hill 271 is located 11 km NE of Anthony in structural corridor with Anthony and Belyando deposits.
- Features quartz veining and gossan, which exhibits anomalous values of copper, gold, bismuth and arsenic, within altered meta-sedimentary rocks.
- Limited percussion drilling to approximately 90m vertical depth undertaken by previous explorers intersected elevated copper and gold, but failed to delineate significant sub-surface mineralisation.
- Zamia acquired a single 2.4 km line of dipole-dipole IP over the project area in November 2013. The survey detected a substantial chargeability anomaly showing a pseudo-section width of over 700m at more than 100m depth.
- The IP response is interpreted to be significant enough in terms of size and contrast to represent a potential sulphide-bearing porphyry-style target comparable in size to the Anthony mineral system.



Hill 271 observed IP (chargeability) results showing a significant anomaly at a depth of >100m



# Mistake Creek Project (EPM 17488)



Interpreted aero-magnetic map of EPM 17488 (Mistake Creek)

## Exploration Strategy

- Zamia intends to test an area with a magnetic low signature, using a combination of pole-dipole IP and drill testing

## Background

- Located 26 km SW of Anthony, Mistake Creek features a bulls-eye magnetic high surrounded by a complex magnetic low
- The magnetic low may be indicative of hydrothermal alteration
- Highly prospective for skarn-type, porphyry-style and intrusion-related gold and base metal mineralisation
- One historic drill hole intersected quartz+pyrite veining, returning a best intersection of 2m @ 1.99 g/t Au associated with elevated copper, lead, zinc and arsenic
- Zamia interprets the exposed veining to represent porphyry-style D-veins, typically developed distal to the main porphyry mineralisation



# Twin Hills Area – EPM 17703 Disney

## Exploration Strategy

- Zamia intends to test the potential of these surface anomalies as well as selected historical prospects, using a combination of sub-surface sampling (rotary air-blast or percussion drilling) and geophysical methods.

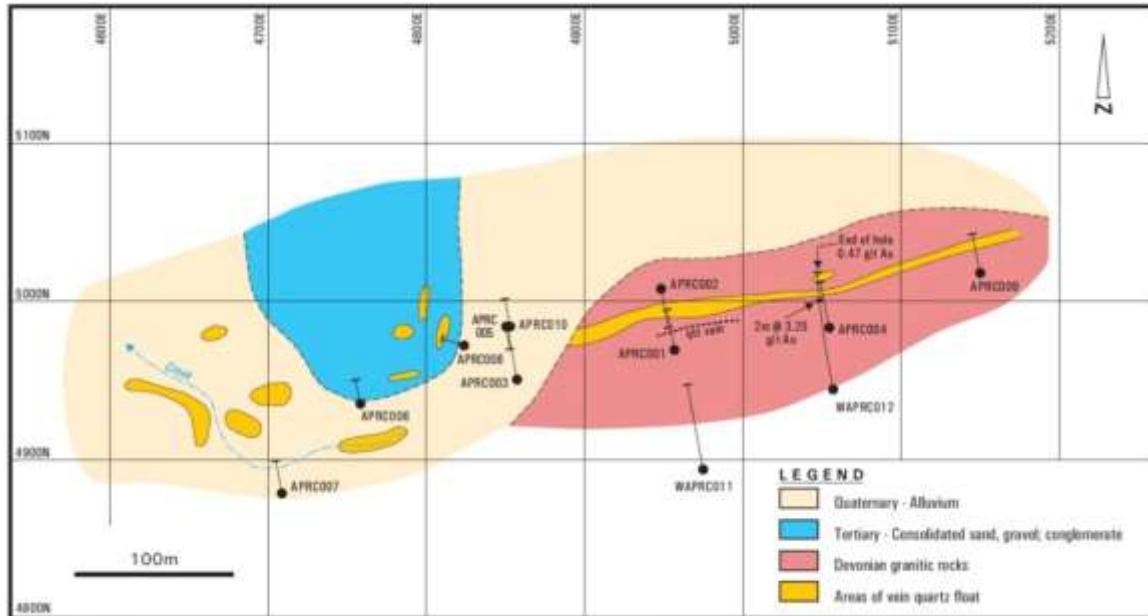
## Background

- Four exploration tenements prospective for epithermal-style gold-silver deposits surrounding the now closed Twin Hills (309) gold mine, approximately 120 km NW of Clermont
- The largest of these tenements, EPM 17703 Disney, contains several prospects (including Apache and Bendee) exhibiting elevated surface geochemistry, as well as rock types common in epithermal environments
- Four of these prospects feature previous exploration drilling including the Apache Prospect showing a best intersection of 2m @ 3.25 g/t Au from 137m depth
- In 2013, Zamia completed three regional soil geochemistry surveys, aimed at identifying new project areas on EPM 17703 and neighbouring tenements. The survey results confirmed the known prospects as well as highlighting several new areas of interest
- Prospective areas are characterised by statistically anomalous values in epithermal pathfinder elements (As, Bi, Mo, Te, Tl and W), which have been shown to successfully delineate epithermal-style mineralisation, both globally and within the Clermont district

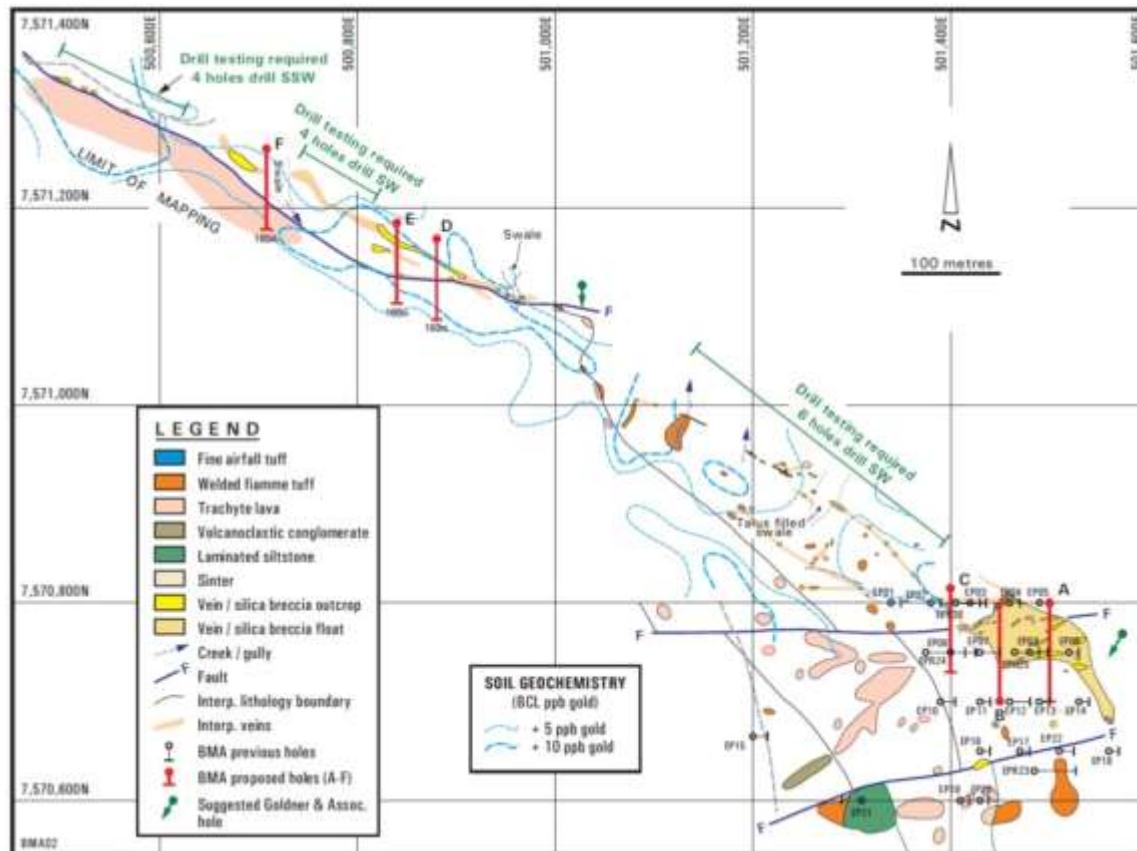


# Twin Hills Area (EPM 17703) – Apache & Disney Prospects

ZAMIA



Geological mapping and drilling at the Apache Project; after BMA Gold Ltd, 2005



Geological mapping, surface sampling and drilling at the Disney Prospect; after BMA Gold Ltd, 2002

## Apache Prospect

- Hosted in granite intrusive rocks
- Abundant epithermal quartz vein float
- Previous rock chip sampling reports quartz float assays up to 2.72 g/t Au
- Previous drilling intersected 2m @ 3.25 g/t Au from 137m (2005)
- Drilling was abandoned due to technical issues and financial constraints
- Significant untested potential for gold exists at depths of >100m

## Bendee Prospect

- Drummond Basin volcanic tuff and lava
- Hydrothermal breccia following geological contact
- Elevated gold in soil associated with breccia
- Previous rock chip samples up to 0.5 g/t Au
- Previous drilling intersected 4m @ 0.63 g/t Au from surface (1993); 8m @ 0.15 g/t Au from 76m depth (2007)
- Historic drilling determined that mineralisation is dipping SE
- 1km strike length of hydrothermal breccia untested by previous drilling



# 2014 Exploration Programme

Tenement Number	Project name	Programme Activities	Planned commencement
EPM 15145	Anthony	Drilling programme (RC & diamond) to test the areas between the limit of the current Mo resource and the outer limit of the IP chargeability response	April 2014
EPM 14790	Blackwood Dam	Dipole-dipole IP to test for the presence of sulphide minerals at depth and follow-up RC drilling	May 2014
EPM 19369	Hill 271 Prospect	Up to two RC percussion drill holes to test the IP high	May 2014
EPM 17488	Mistake Creek	Combination of pole-dipole IP and drill testing	May/June 2014
EPM 17703	Bendee and Apache (Twin Hills Area)	Combination of sub-surface sampling (RC or diamond drilling) and geophysical methods (low-level aeromagnetism and IP)	June/July 2014

## JV and acquisition opportunities

- Zamia is in potential JV discussions with other companies for possible co-operation on Zamia's EPMs
- Zamia has signed a confidentiality agreement to commence negotiations with the Inner Mongolia Geology and Mineral Products (Group) Co. Ltd



# Investment Highlights

- The Clermont District of Central Queensland is a known gold province with emerging copper, gold and molybdenum porphyry deposits
- Multiple operating and post-production gold mines in the Drummond Basin region, including Pajingo (> 3 Moz), Wirralie (0.32 Moz produced), Yandan (0.35 Moz produced), Mount Coolon (0.29 Moz produced) and Twin Hills (resources of 0.39 Moz)
- Zamia has a large tenement holding in the Clermont District, comprising 1,060 km<sup>2</sup> of tenements with numerous porphyry and epithermal targets
- Significant porphyry-style molybdenum resource at Anthony, compliant with the JORC Code 2004
- Drill ready epithermal-style gold-silver and porphyry-style copper-gold targets based on geophysical and geochemical surveys funded in 2013 by Zamia's major shareholders
- Drilling at a number of projects scheduled to commence in the second quarter CY14
- Good access and excellent regional infrastructure



# Disclaimer

## Forward-Looking Statements

This document contains certain “forward-looking statements”, including, but not limited to, statements concerning current and future drilling programmes, estimation of mineral resources, the continuing development plan, the type of mineralisation present and expected results.

Information inferred from the interpretation of drilling results may be deemed to be a forward looking statement, as it constitutes a prediction of what might be found to be present when and if a project is actually developed.

Statements and estimates concerning mineral resources may also be deemed to be forward looking statements in that they involve estimates, based on certain assumptions, regarding the mineralisation that would be encountered if and when a mineral deposit is actually developed and mined.

Forward looking statements are not historical facts, and are subject to a number of risks and uncertainties beyond management’s control. There can be no assurance that such statements will prove to be accurate. Actual results and future events could differ materially from those anticipated in such statements. Risks and uncertainties that could cause results or future events to differ materially from current expectations expressed or implied by the forward-looking statements include, among other things, but without limitation, those set forth in the Annual Report and the website ([www.zamia.com.au](http://www.zamia.com.au)) of Zamia Metals Limited (‘Zamia’).

For more information about the Company’s properties and projects, please refer to the Annual Report.

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## Technical Information

The technical information contained in this document was approved by Mr Richard Keevers, Chairman and Non-Executive Director of Zamia Metals Limited. Mr Keevers is a Fellow of the Australasian Institute of Mining and Metallurgy (FAustIMM CP). He has sufficient experience to qualify as a Competent Person as defined in the September 2004 edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Mr Keevers consents to the inclusion of the matters in the form and context in which they appear. The technical information contained in this document was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.



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