



# Zamia Metals Limited

April 2012

# Capital Structure (as of 11 April 2012)

- Established junior mining company with investor interest from both Australia and Asia
- Top 20 shareholders account for approximately 67% of the register
- Review of potential strategic/cornerstone industry investors and JV partners underway

<b>Shares</b>	<b>247,534,631</b>
<b>Options</b>	<b>22,442,856</b>
<b>Shareholders</b>	<b>1063</b>

<b>Holder Name</b>	<b>%</b>
Brownstone International Pty Ltd	17.4
Kings Resources Group Co Limited	8.7
West Minerals Pty Ltd	7.0
China Kings Industry Pty Ltd	5.8
International Base Metals Limited	5.5
Mr Geng Haitao	3.7
Dr Deng Jiniu	3.5
Great Sea Wave Investment Pty Ltd	2.6



# Experienced Board and Management



- **Alan Humphris**  
**Non Executive Chairman**  
Investment Banker



- **Ken Maiden**  
**Non Executive Director**  
Geologist with 40 years professional experience



- **Qiang Chen**  
**Non Executive Director**  
International commodities trader and investor, Mining Engineer



- **Andrew Skinner**  
**Non Executive Director**  
Chartered accountant



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



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



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# Company Strategy: Two-track Focus

Zamia has a two-track strategy to (a) advance the Anthony Project (molybdenum), and (b) establish copper & gold resources in its large tenement position in central Queensland

## Anthony Project

- Seek potential strategic/cornerstone industry investors
- Advance the Anthony project towards feasibility

## Regional Exploration

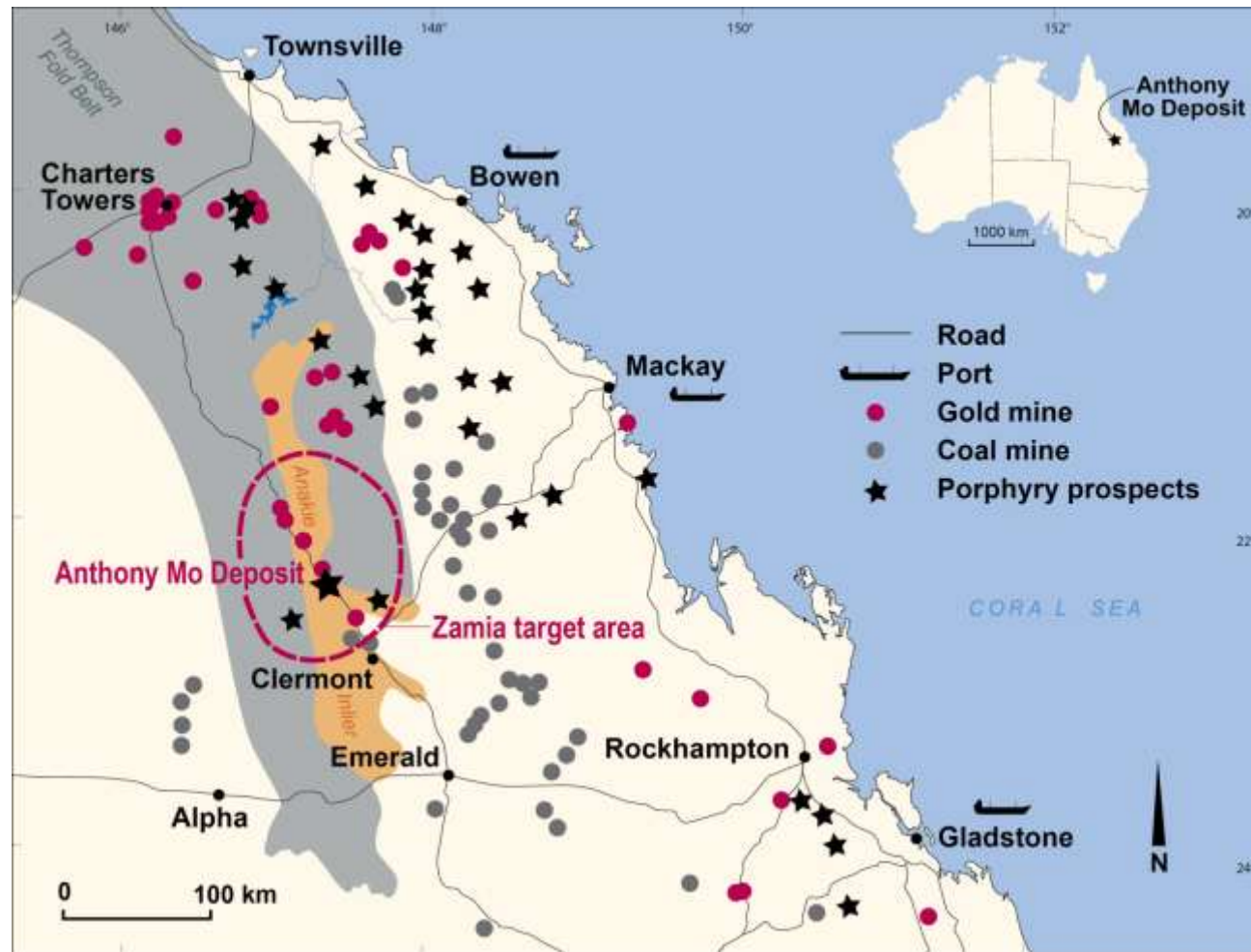
- Test gold-copper targets within the Company's tenements
- Review of potential Joint Venture partners
- Seek other advanced gold projects





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# Location – Central Queensland



- Established gold province with emerging copper, gold and molybdenum deposits
- Good potential for large porphyry copper-gold deposits
- Multiple operating and post-production gold mines
- Good access but under-explored
- Established infrastructure
- Access to power & water
- No major environmental issues

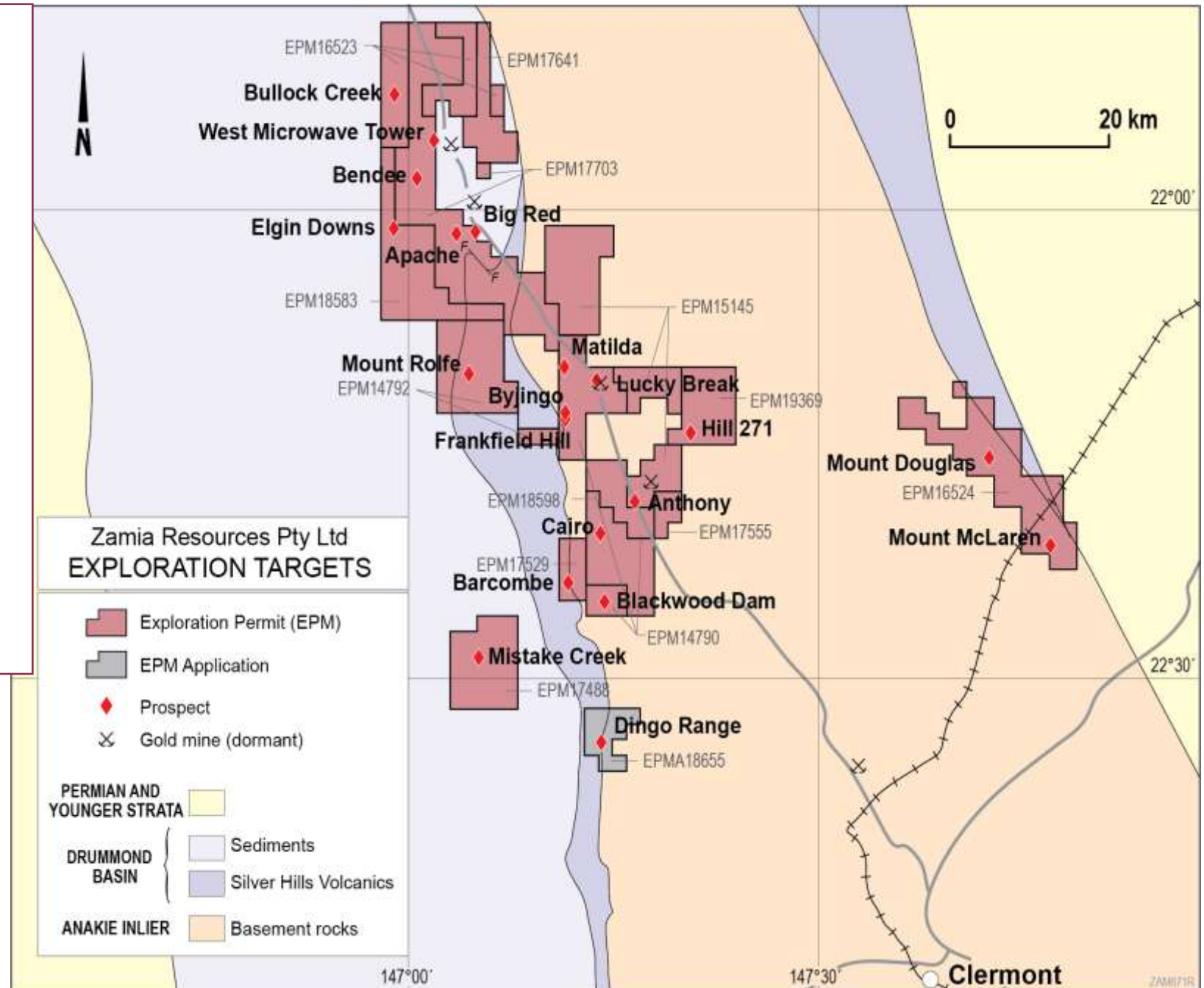






# Regional Geology & Zamia Tenements

- Central Queensland has excellent potential for discovery of intrusion-related gold (Au), copper (Cu) & molybdenum (Mo)
- Zamia has exploration permits & applications over more than 1,300 km<sup>2</sup>
- Zamia has identified numerous porphyry and epithermal targets, some with known Au, Cu & Mo





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# Anthony Molybdenum (**Mo**) Project



**ASX:ZGM**



# Anthony Molybdenum (**Mo**) Project

## Main Features

- Porphyry-style Mo deposit
- A maiden resource was announced in April 2010. Ongoing drilling has expanded the resource substantially
- Resource of 318 Mt ore at 390 ppm (0.039%) Mo updated in March 2012
- Resource open laterally & at depth
- Oxide to 60 – 80m depth, above primary sulphide Mo
- Excellent metallurgy in sulphide Mo material
- Recovery of oxide Mo looks possible
- Well located with respect to infrastructure







## Inferred Resource estimate updated in March 2012

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)	Contained Mo (million lb)
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

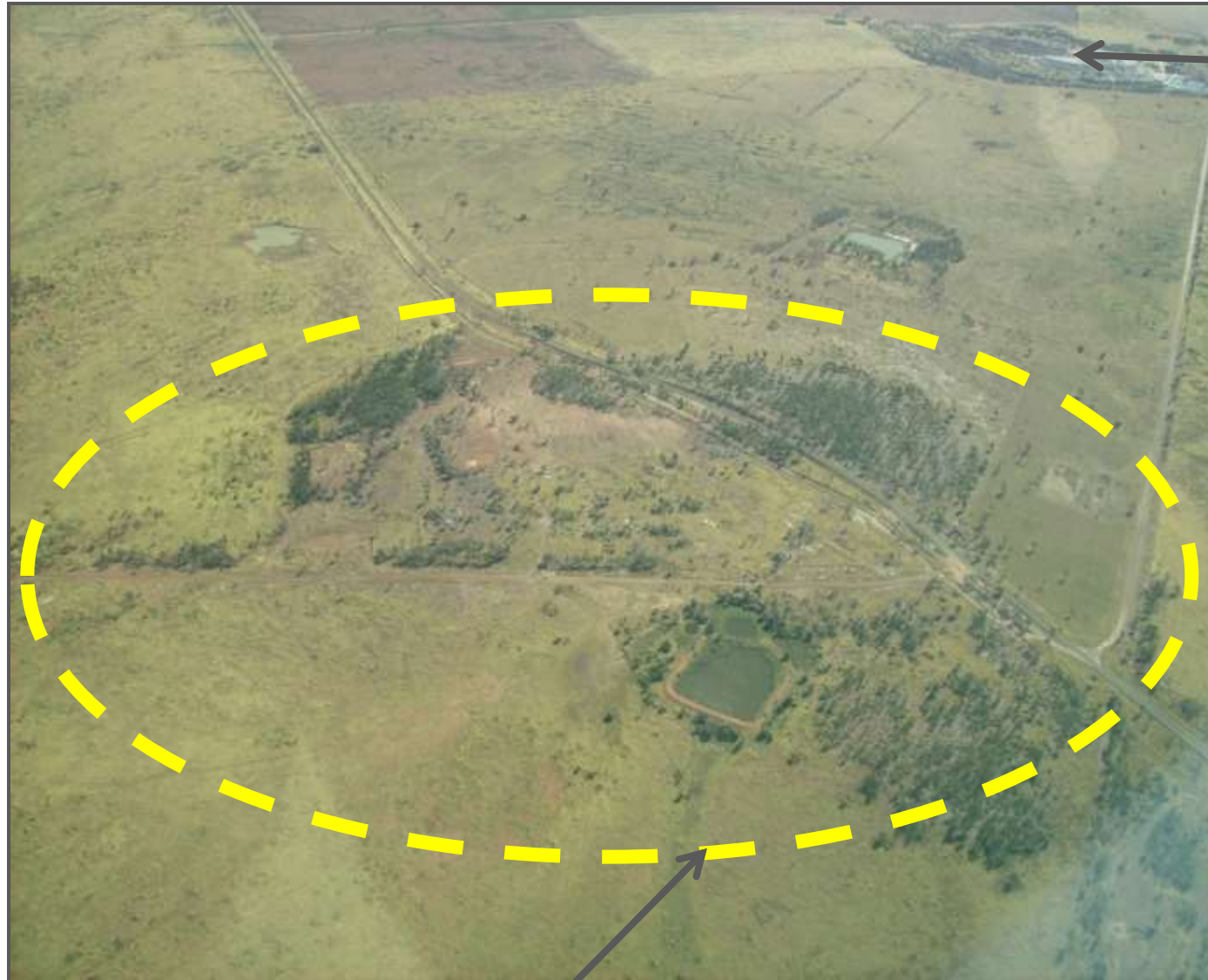
*Note: Figures have been rounded*

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



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## Project Area



**Belyando gold mine  
(not held by Zamia)**

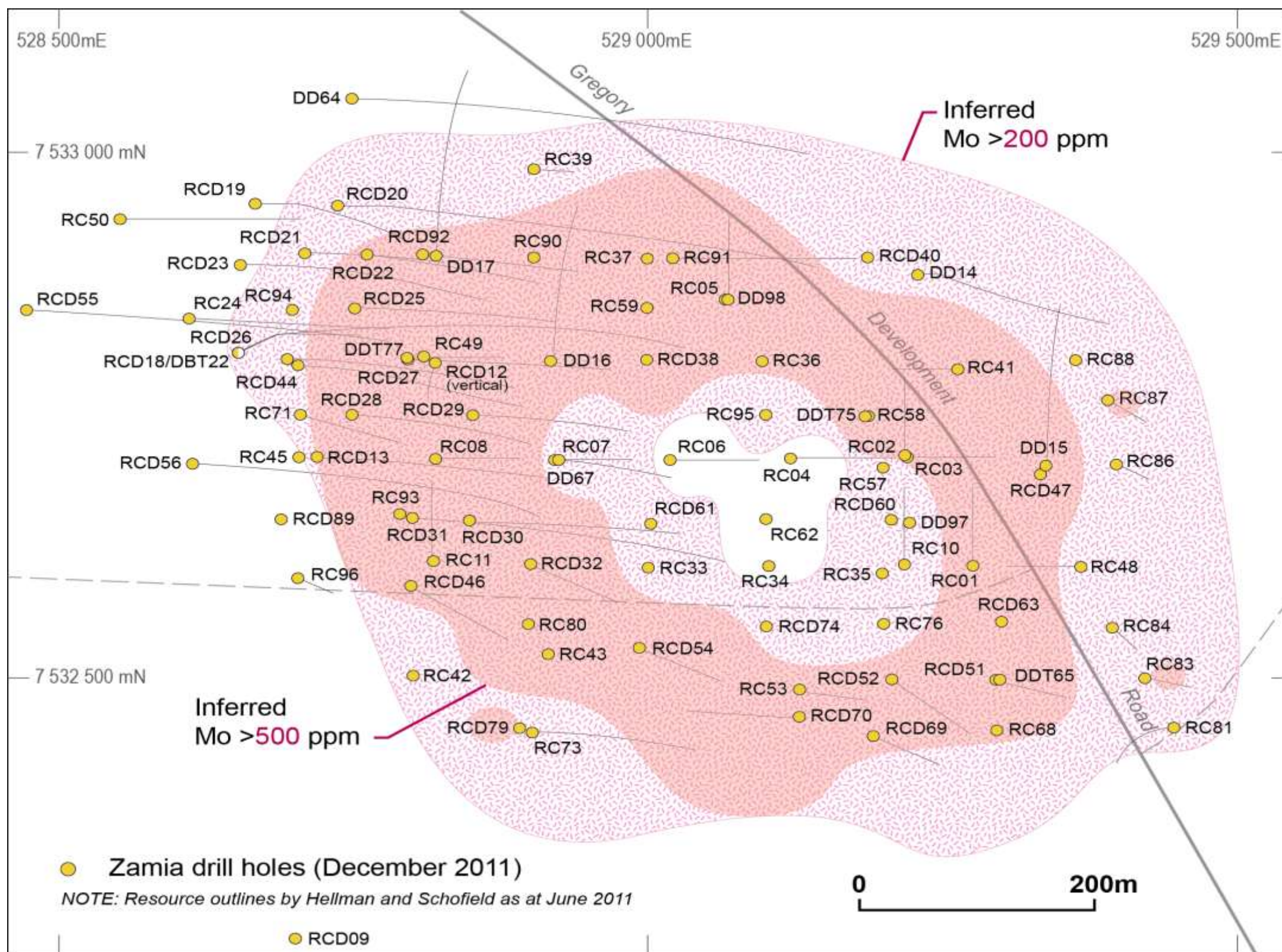
- The deposit outcrops on a low ridge, which rises about 15m above the surrounding black soil plain
- A sealed highway crosses over the deposit
- The inactive Belyando gold mine lies about 2 km to the northeast

**Anthony Mo deposit**





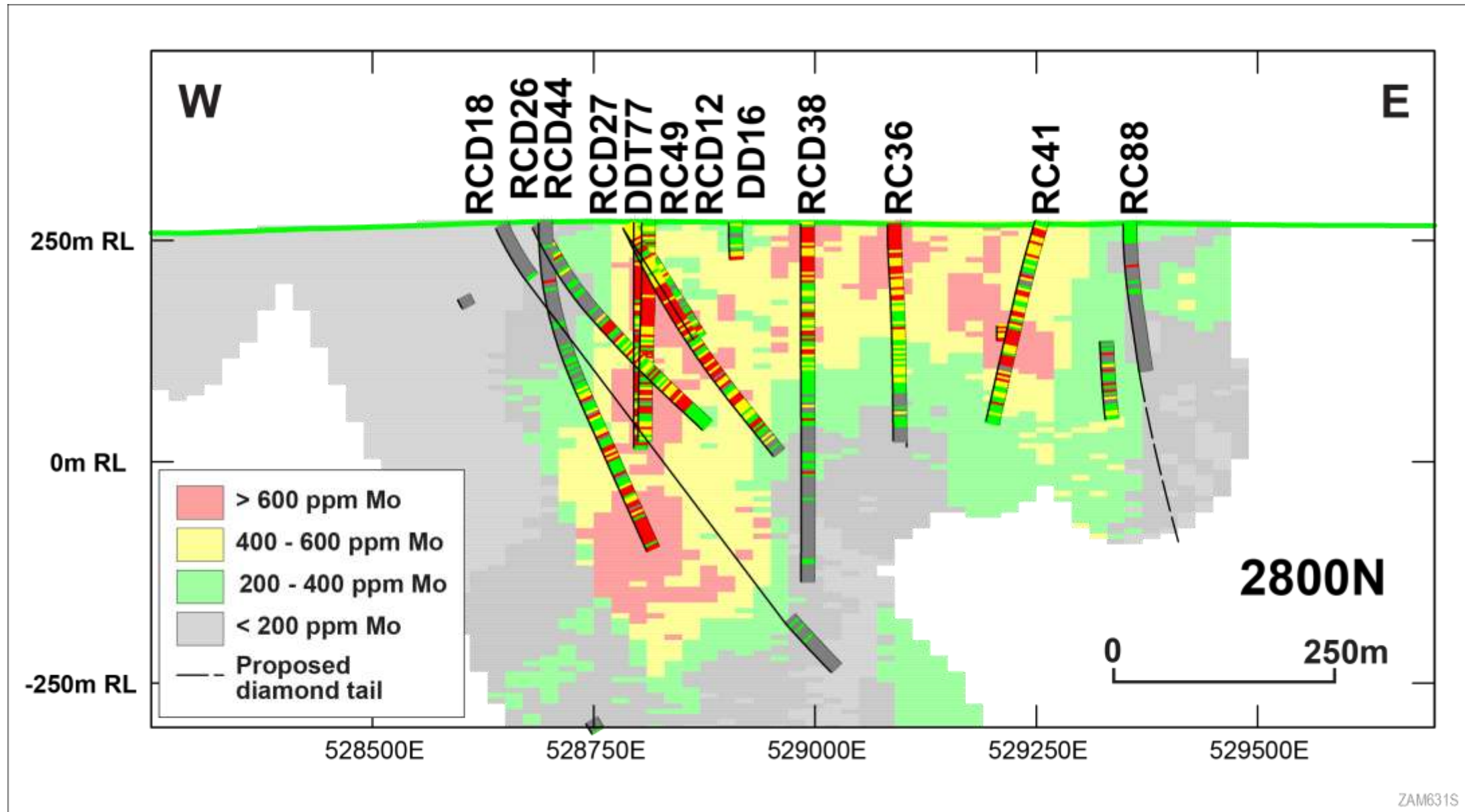
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# Drill Section



Drill cross-sections (west-east) through the Anthony deposit show high grade zones surrounded by lower grade mineralisation. Drill holes have intersected potentially ore-grade molybdenum mineralisation down to 500m depth below surface. The deposit shape is conducive to a large open-pit mining operation





# Upgrading of Sulphide Molybdenum Ore

- Low grade material (~ 400 ppm Mo) can be simply & cheaply upgraded ('beneficiated') by coarse crushing & gravity separation to produce a feedstock of ~ 1000 ppm Mo
- Zamia is investigating a process whereby
  - High grade ore will be fed directly through the crushing & grinding circuit to a flotation plant
  - Low grade material will be beneficiated to produce high grade feedstock for the grinding circuit & flotation plant
  - Flotation tests show the likelihood of producing a high grade (+50% Mo) concentrate with low levels of contaminants (lead, arsenic, etc.)
  - Preliminary testwork indicates the possibility of recovering a molybdenum product from the near-surface oxide resource





## Strategy

- Upgrade resource estimation - resource upgraded in March 2012
- Seek potential strategic/cornerstone industry investors
- Advance the project towards feasibility

## Committee of technical experts recommendations:

- Pause in drilling after resource upgrade
- Assess technical feasibility - primary & oxide Mo
- Then move to a scoping study including preliminary financial analysis

**Zamia is seeking a strategic/JV partner to fund the project through to completion of a definitive feasibility study**







# Molybdenum - Chemical Symbol Mo

## Attributes

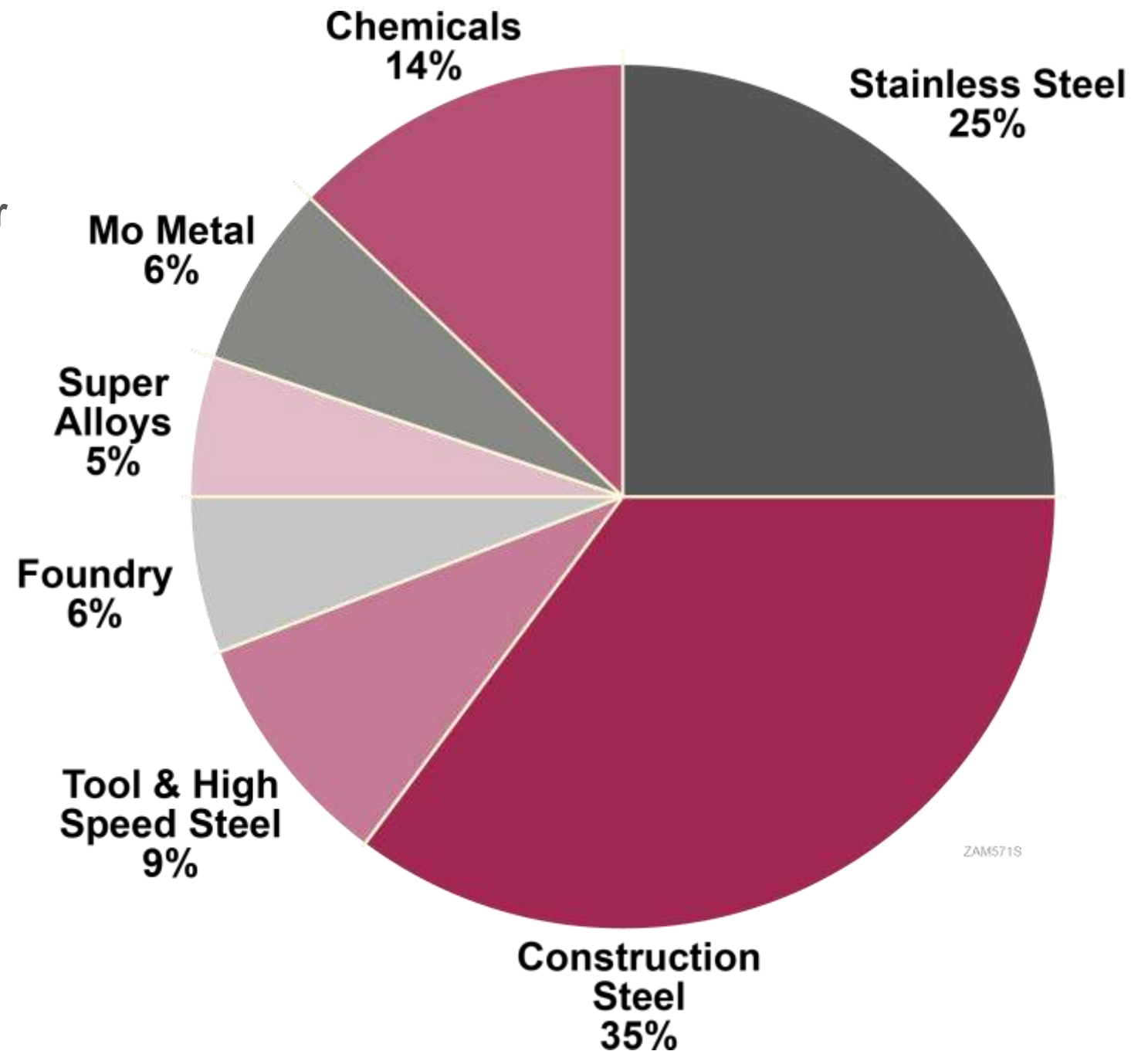
- Heavy metal
- Very high melting point +2,600°C
- Steel, alloyed with Mo, is stronger & more resistant to heat & corrosion

## Major uses

- Construction steel
- Stainless steel

## Emerging uses

- Thin film solar panels
- Clean, efficient production of hydrogen





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# Regional Discovery Potential

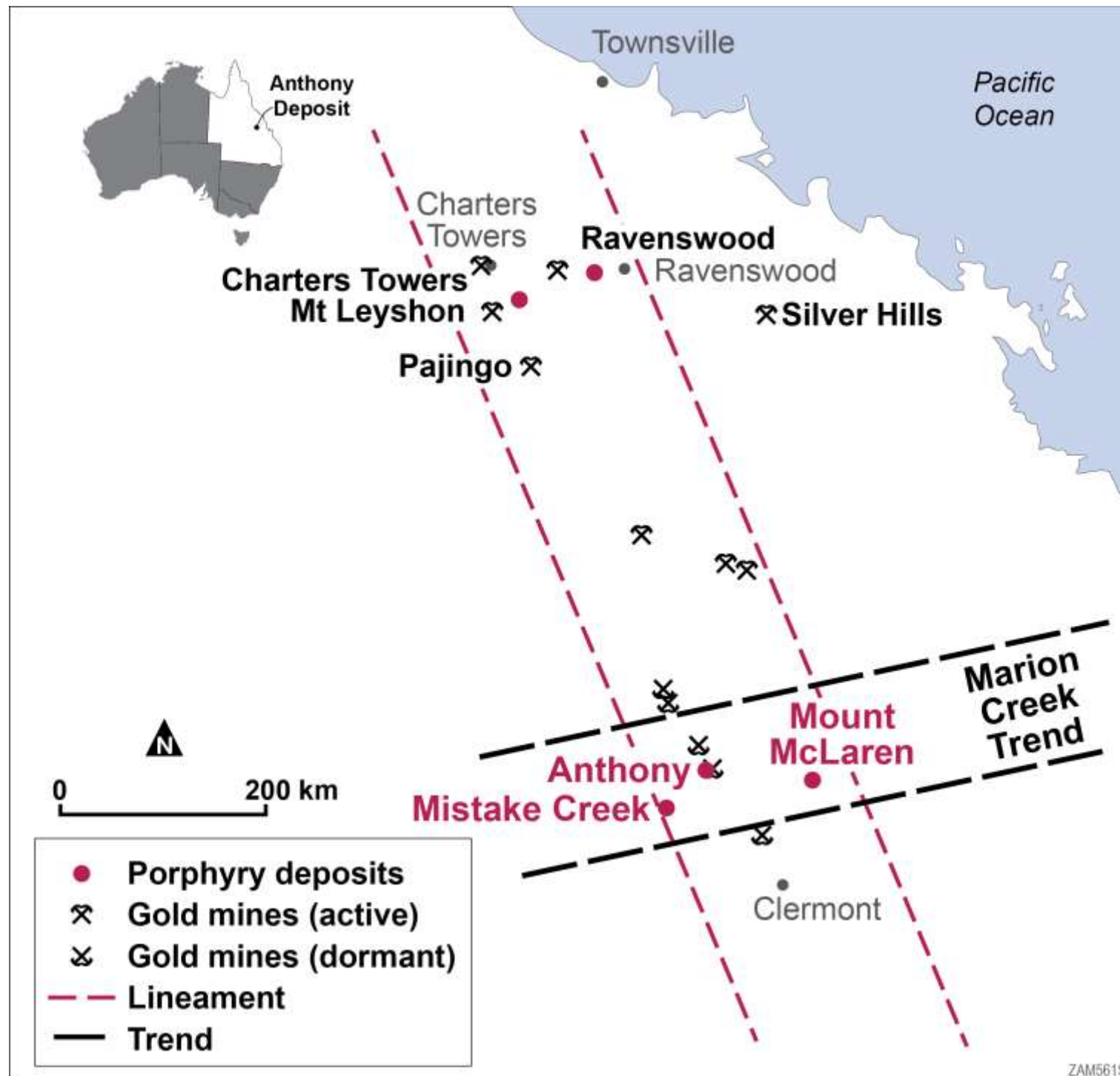


**ASX:ZGM**





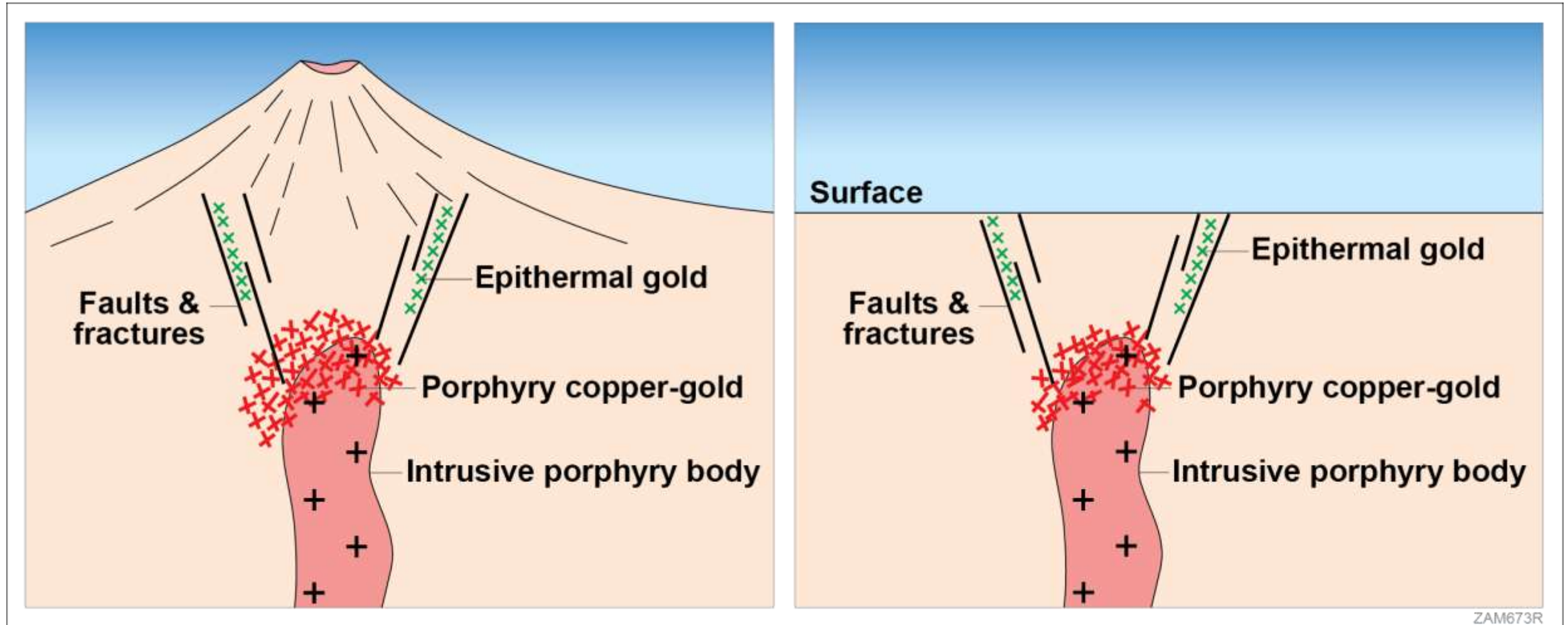
# Regional Discovery Potential



- The Charters Towers to Clermont belt in Central Queensland has long been recognised as a gold province
- Some porphyry-type copper-gold prospects have been known for some time
- Zamia's discovery of the Anthony deposit demonstrates the potential for major porphyry systems
- Since the Anthony discovery, exploration ground has been tightly held in the region
- Several major companies are now seeking Joint Venture opportunities



# Porphyry – epithermal model



Geological setting

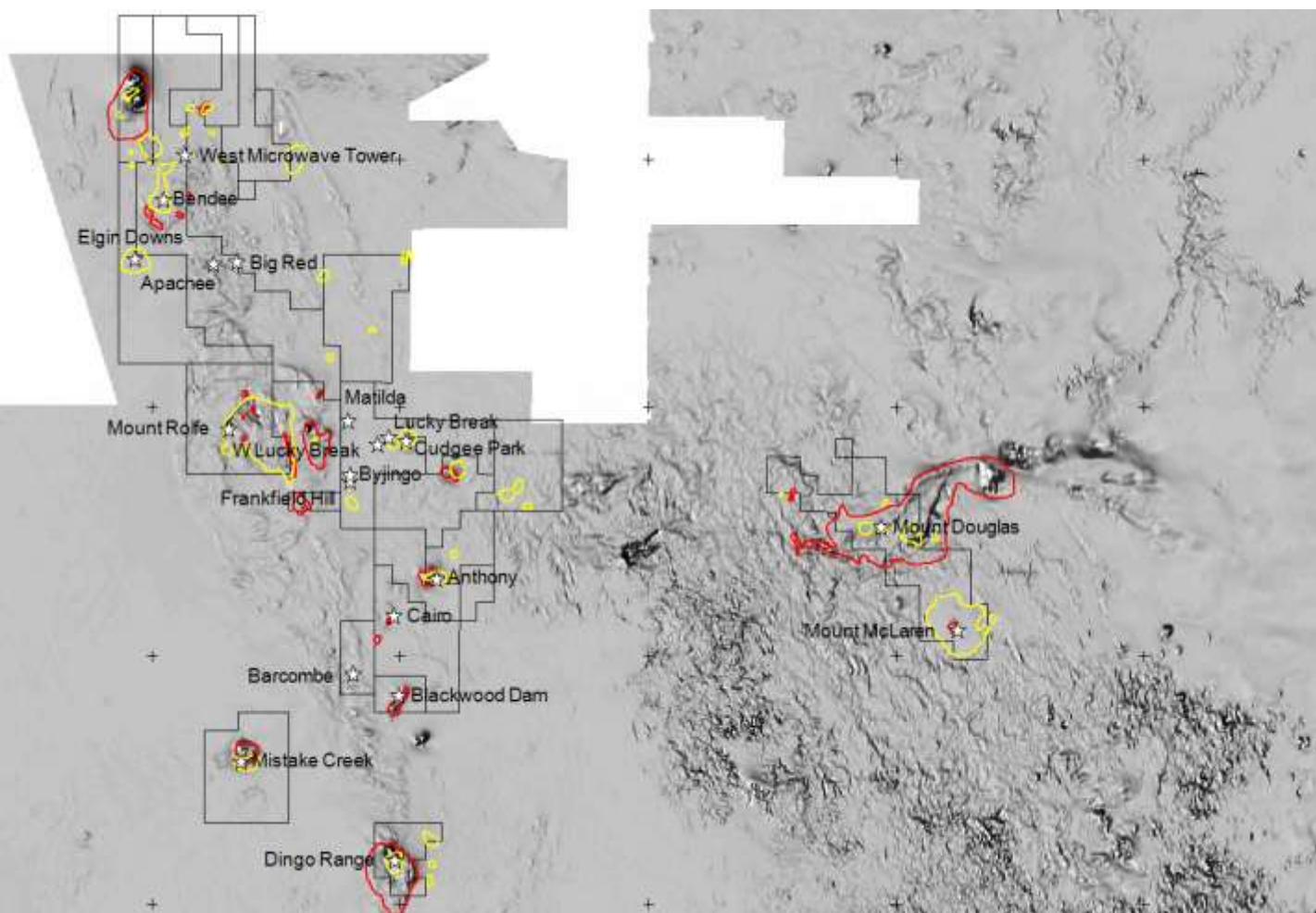
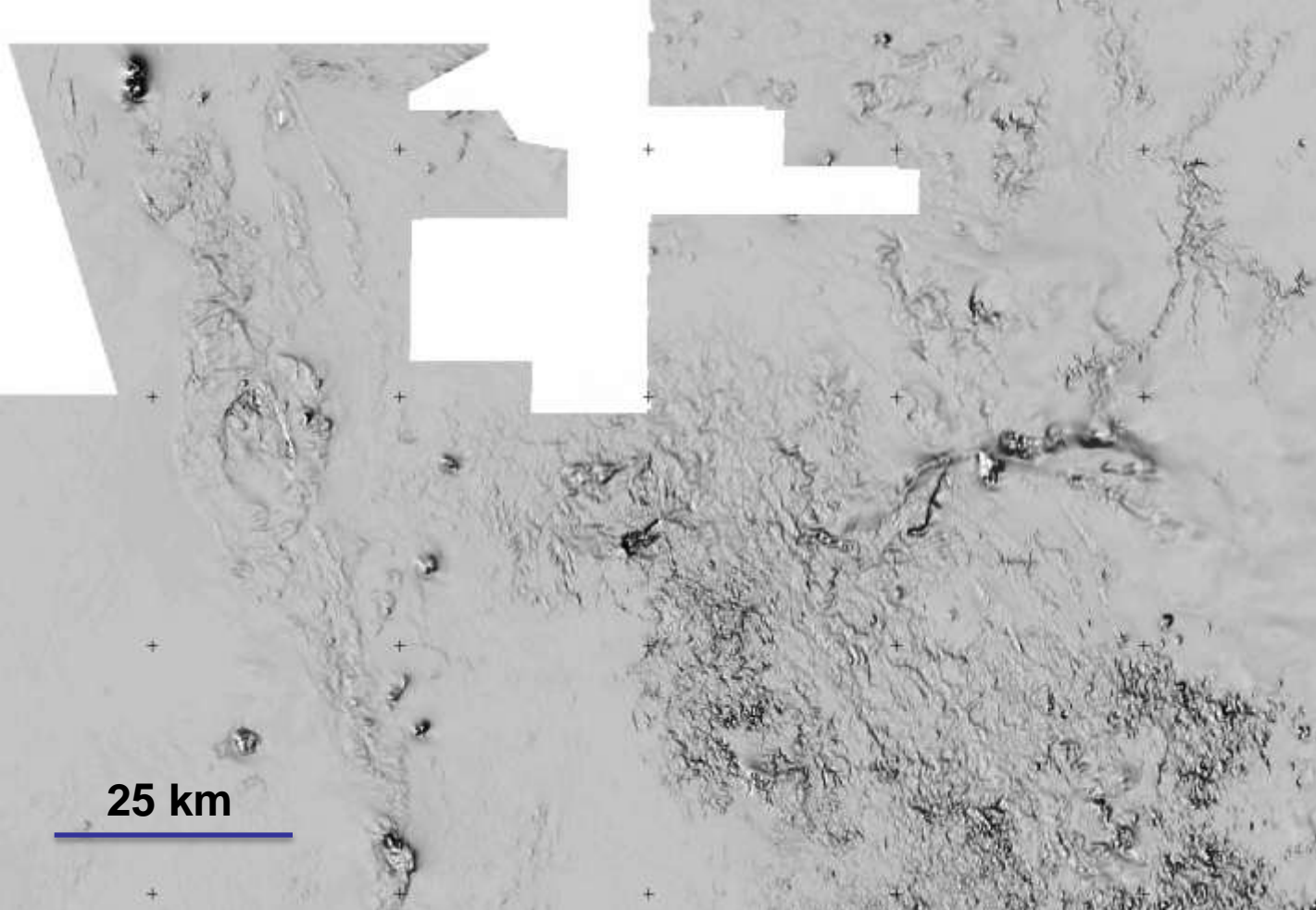
(a) 400 million years ago

(b) Today



# Geological Setting

- The grey-scale magnetic image shows numerous intrusive igneous complexes. Most of these do not outcrop and have never been explored
- Red outlines = magnetic anomalies (Magnetic intrusive bodies)
- Yellow outlines = potassium anomalies (Intrusive bodies or alteration zones)
- Black lines = Zamia EPMs & applications







# Regional Exploration

**Zamia's current exploration programme includes:**

- **Regional geological interpretation based on integration of data, including review of the regional airborne geophysical (magnetic & radiometric) data sets**
- **Identification of intrusive igneous complexes**
- **Prioritisation of targets**
- **Geological mapping, soil geochemical surveys and electrical geophysical (induced polarisation) surveys**





# 2012 Exploration Programme and Budget

Zamia has two options to explore in Clermont in 2012:

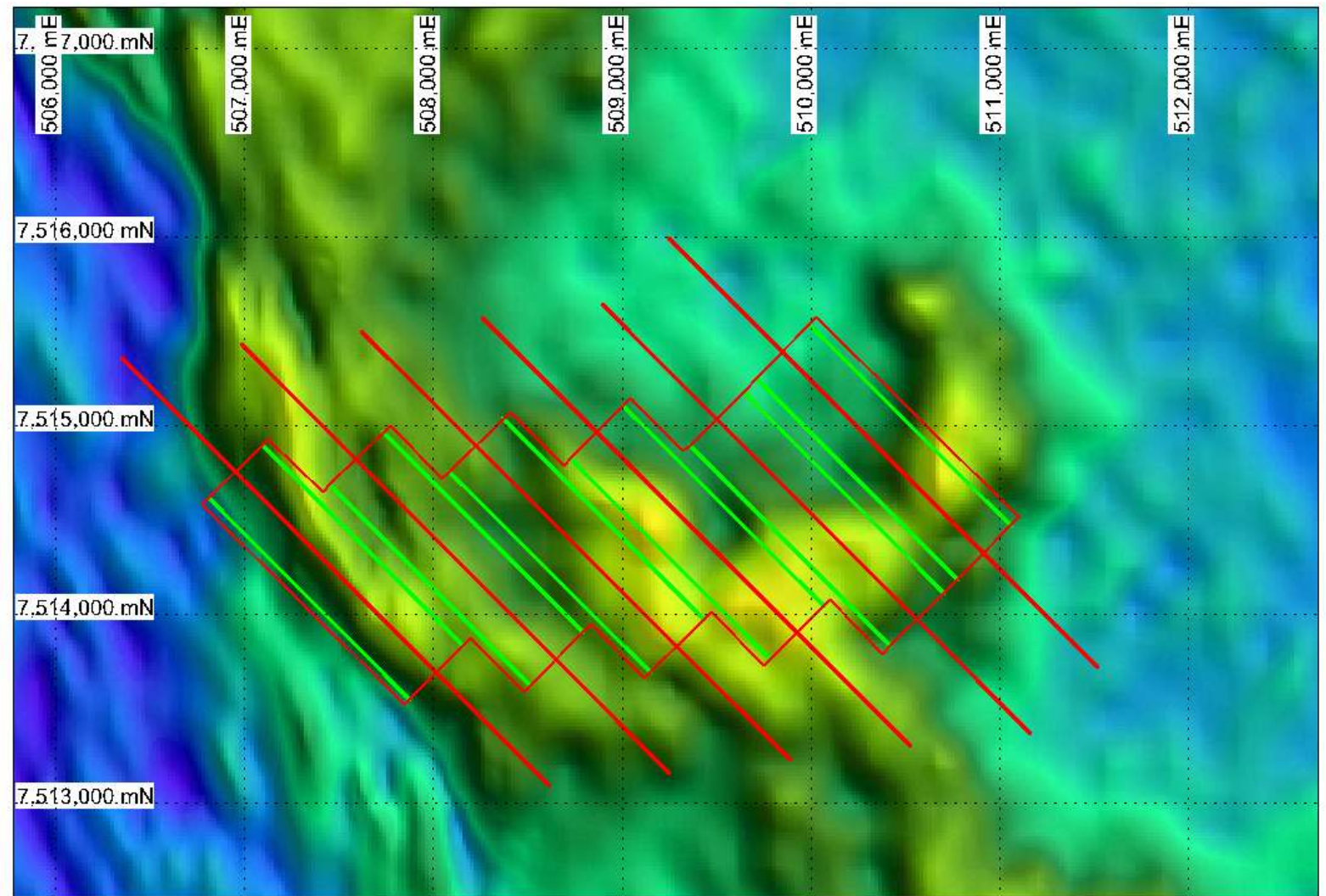
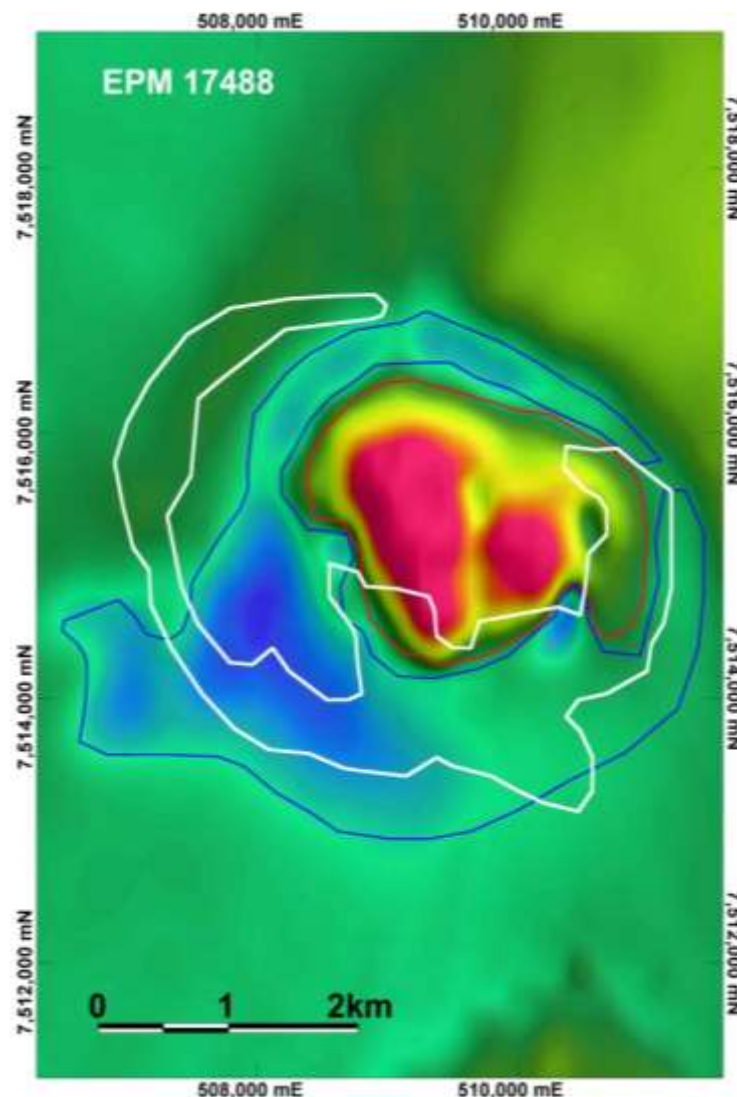
- **Joint venture (whole or partial) of Zamia tenements, allowing Zamia to seek opportunities in new geological areas or expand its presence in the Clermont district**
  
- **Continue to sole-fund Clermont exploration tenements**
  - **Proposed activities include geological mapping, surface geochemical and petrological sampling as well as surface based geophysical exploration techniques (magnetic intensity, gravity and IP).**
  - **Identify viable drill targets amongst a significant number of diverse geophysical and geological targets along the Anakie Inlier/Drummond Basin contact**
  - **Prioritise drill targets and establish an exploration budget for newly planned drilling program.**





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# Regional Targets - Mistake Creek



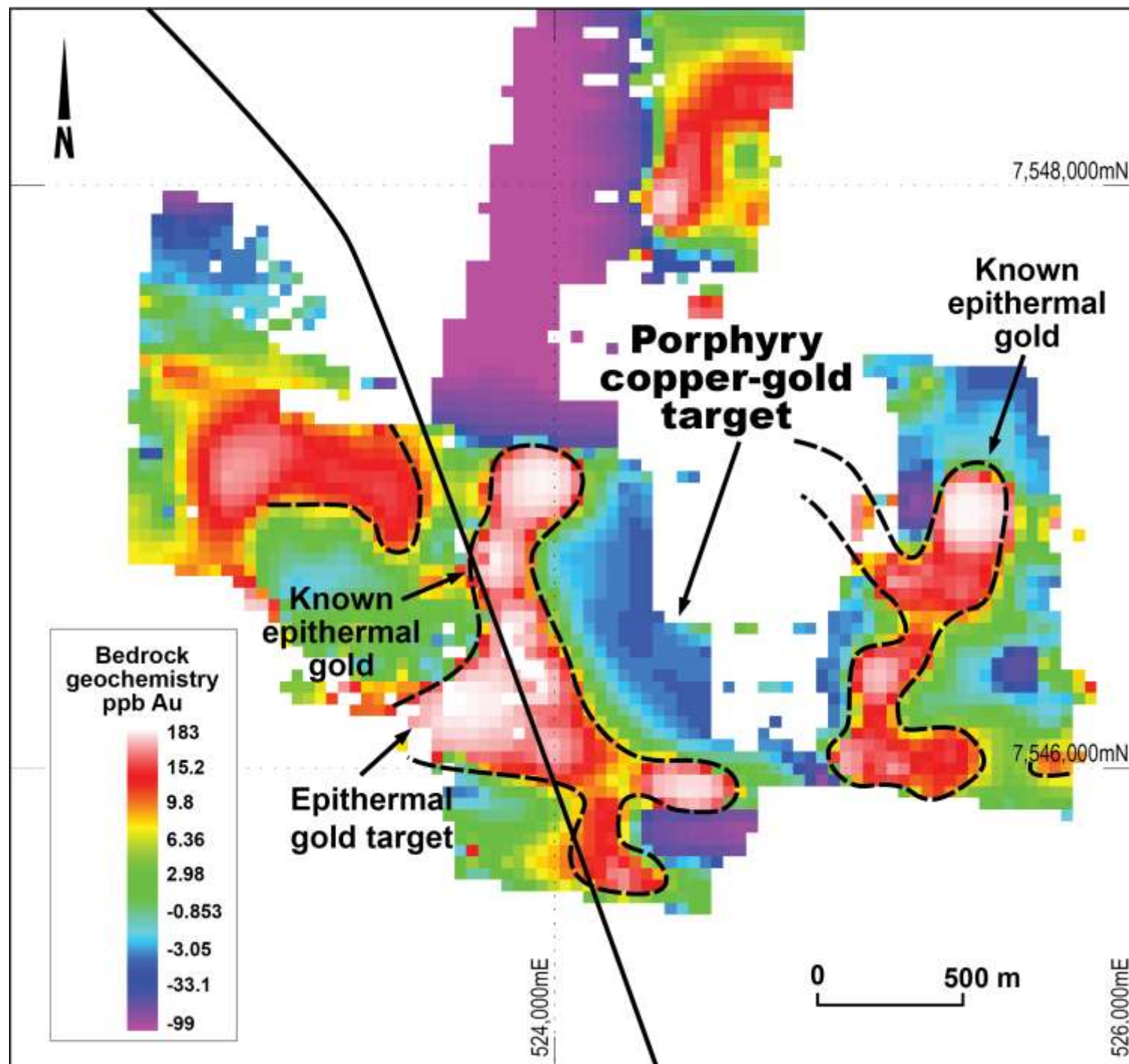
**Left:** Magnetic image showing a “high” (red) related to magnetic intrusive bodies, and surrounded by subdued negative magnetic anomalies (blue lines). White lines = potassium radiometric anomalies possibly indicating rock alteration. Previous shallow drilling near the edge of the magnetic anomaly intersected elevated base metals & gold (up to 2m at 2.0 g/t Au). The magnetic “low”, possibly caused by rock alteration, has not been tested

**Right:** Potassium channel radiometric image showing semi-circular anomaly and planned I.P. lines





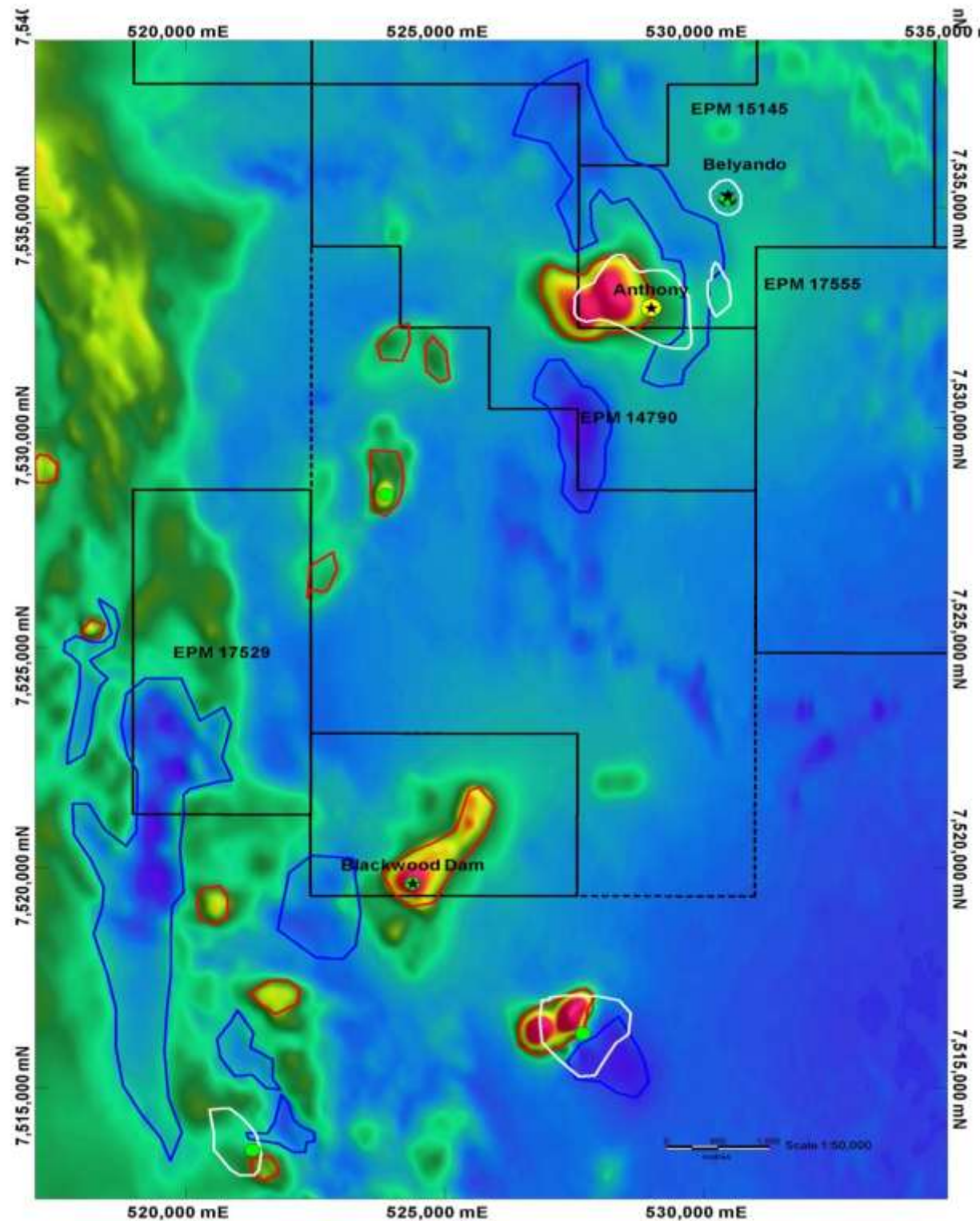
# Regional Targets - Cudjee Park



- A potassium radiometric anomaly, 3 kms across, indicates an underlying igneous intrusive body.
- Red areas show gold geochemical anomalies. 7,000 oz gold was recovered from the Lucky Break open-cut mine.
- The semi-circular gold geochemical anomaly (pink & red areas) could represent an epithermal gold system above a large porphyry copper body at depth



# Regional Targets - Blackwood Dam

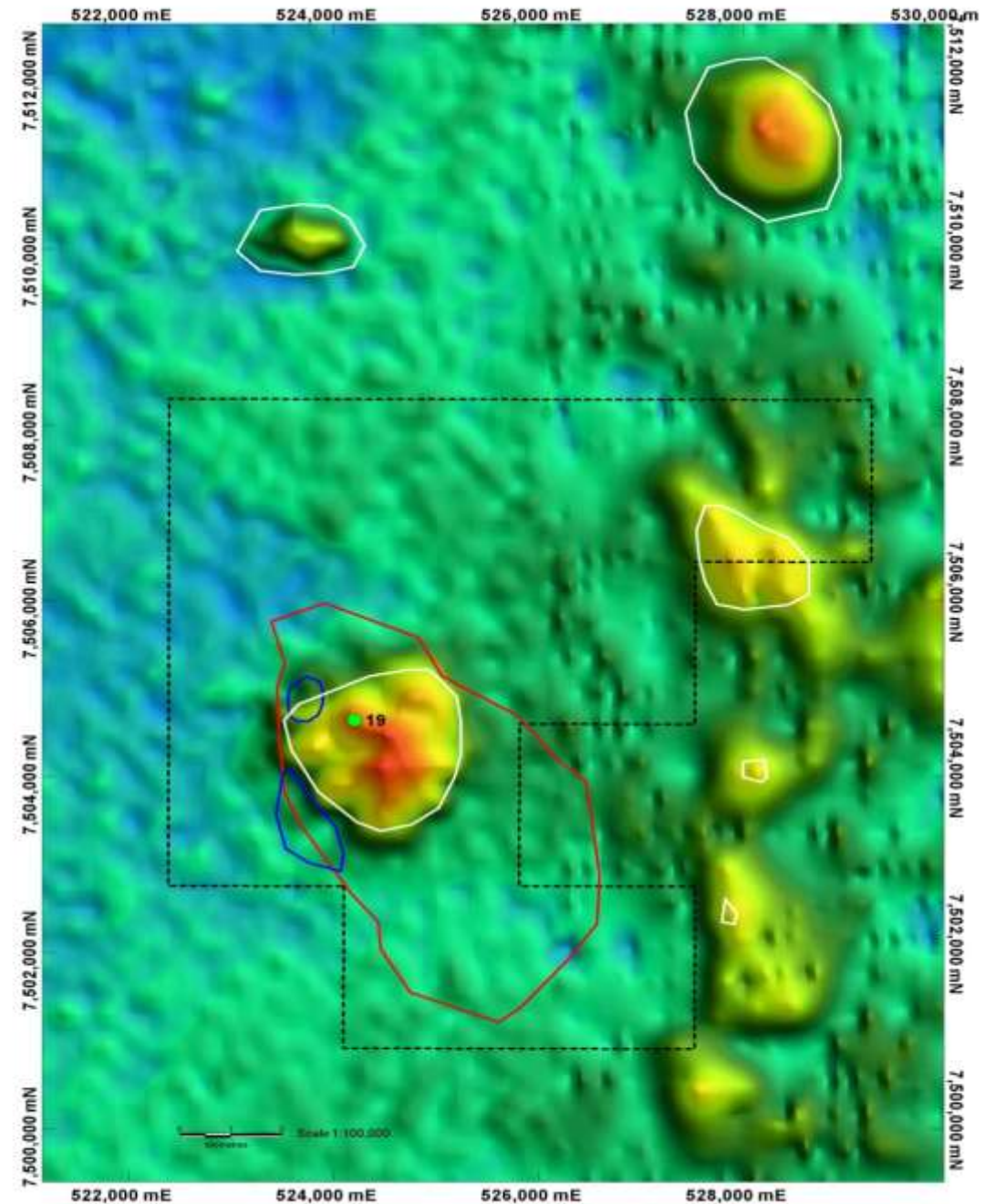
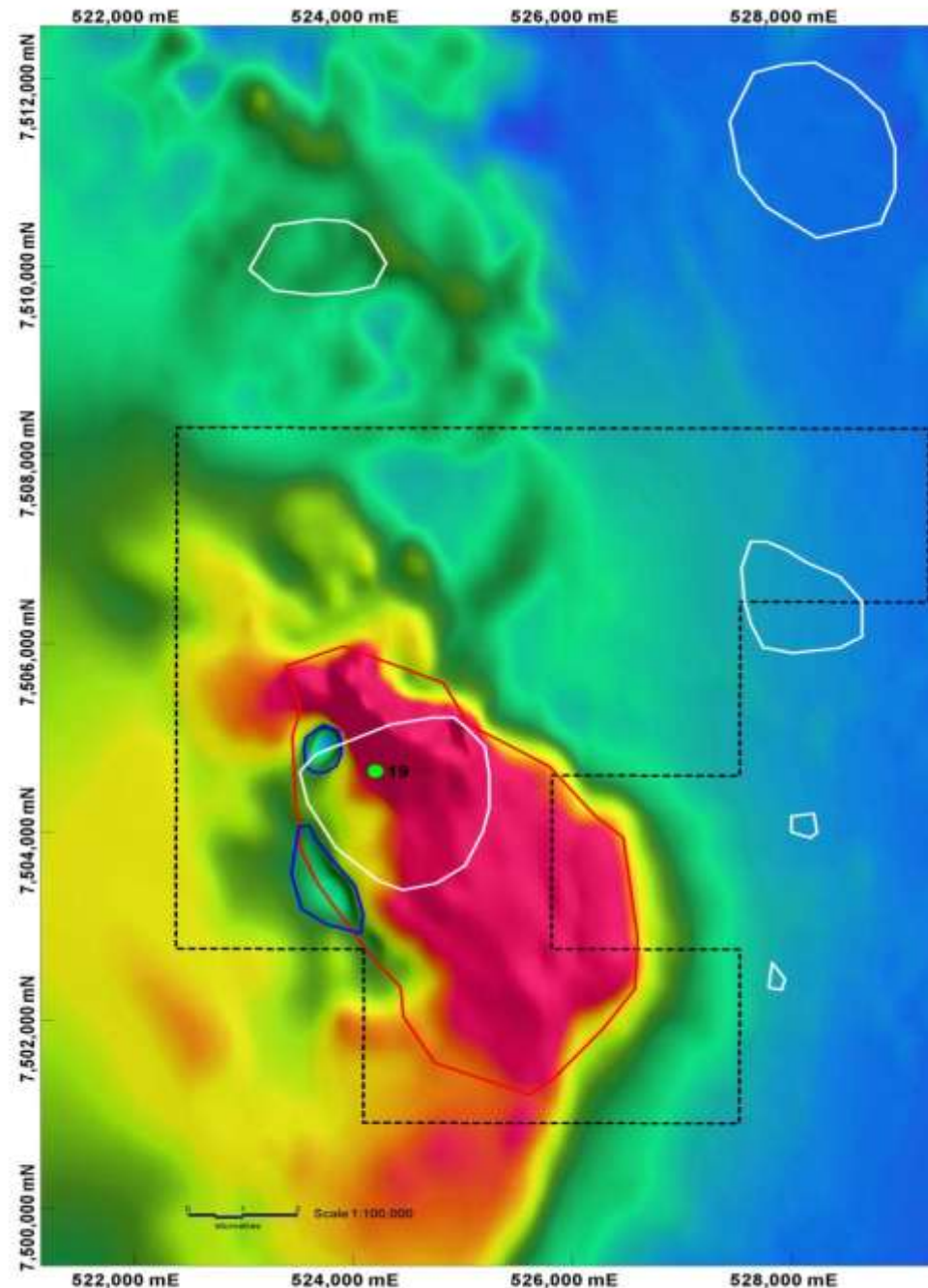


- The target area is a magnetic anomaly which indicates an intrusive igneous complex
- There is no rock outcrop and the target area has never been explored
- Zamia is now conducting an electrical geophysical (I.P.) survey over the target area





# Regional Targets - Dingo Range



The target is an untested magnetic anomaly with a coincident potassium anomaly indicating an intrusive igneous complex. There has been no previous detailed exploration



## 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.

The technical information contained in this document was compiled by Dr Ken Maiden, Director of Zamia Metals Limited. Dr Maiden is a Member of the Australian Institute of Geoscientists and a Fellow of the Australasian Institute of Mining and Metallurgy. 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”*. Dr Maiden consents to the inclusion of the matters in the form and context in which they appear.







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