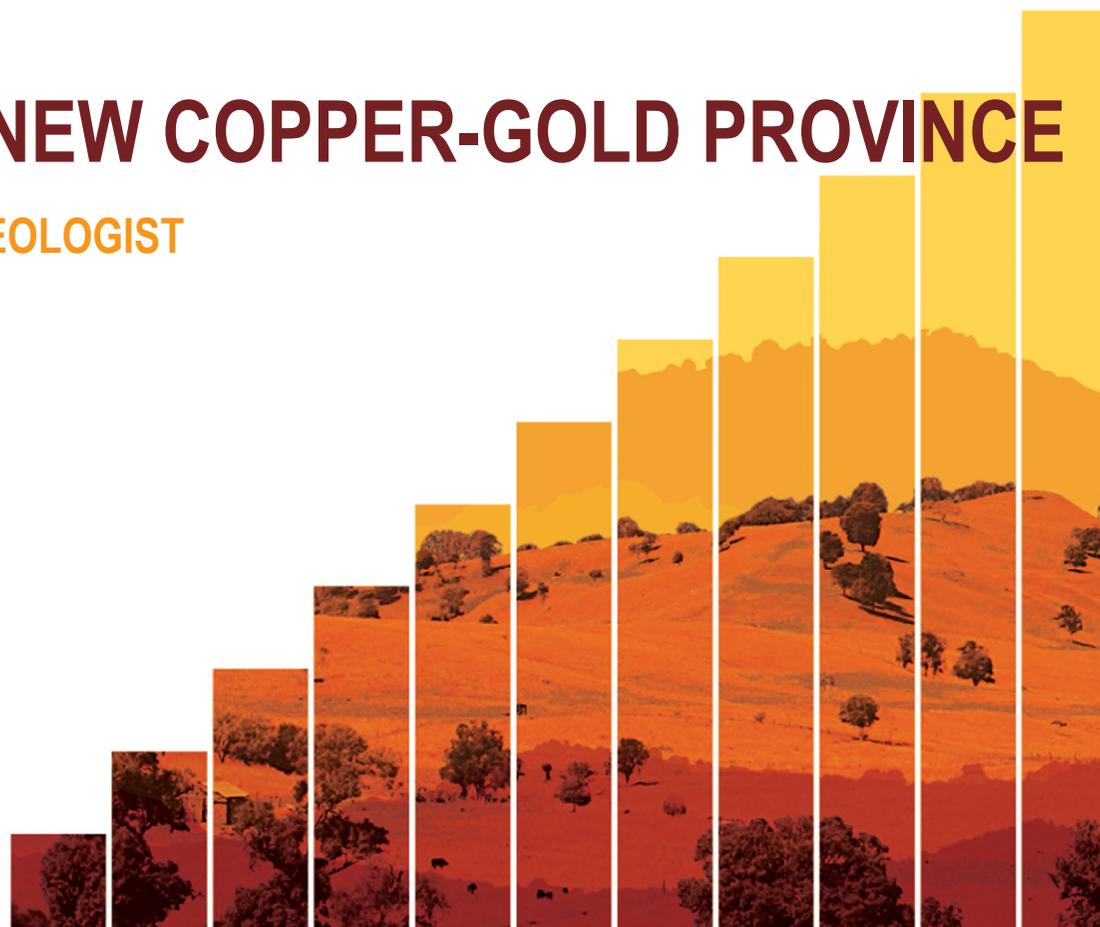




# HILLGROVE RESOURCES

## UNCOVERING A NEW COPPER-GOLD PROVINCE

PETER ROLLEY  CHIEF GEOLOGIST  
26 JUNE 2018



No representation or warranty is or will be made by any person (including Hillgrove Resources Limited ACN 004 297 116 (“Hillgrove”, “HGO”, or the “Company”) and its officers, directors, employees, advisers and agents) in relation to the accuracy or completeness of all or part of this document (the “Document”), or the accuracy, likelihood of achievement or reasonableness of any forecasts, prospects or returns contained in, or implied by, this Document or any part of it. This Document includes information derived from third party sources that has not been independently verified.

This Document contains certain forward-looking statements with respect to the financial condition, results of operations and business of Hillgrove and certain plans and objectives of the management of Hillgrove. Forward-looking statements can generally be identified by the use of words such as ‘project’, ‘foresee’, ‘plan’, ‘expect’, ‘aim’, ‘intend’, ‘anticipate’, ‘believe’, ‘estimate’, ‘may’, ‘should’, ‘will’ or similar expressions. Indications of, and guidance on, production targets, targeted output, mine development or timelines, exploration or expansion timelines, infrastructure alternatives and financial position and performance are also forward-looking statements. Any forecast or other forward-looking statement contained in this Document involves known and unknown risks and uncertainties and may involve significant elements of subjective judgment and assumptions as to future events which may or may not be correct. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors, many of which are beyond the control of Hillgrove, and may cause actual results to differ materially from those expressed or implied in such statements. There can be no assurance that actual outcomes will not differ materially from these statements.

Various factors may cause actual results or performance to differ materially. These include without limitation the following: risks specific to Hillgrove’s operations; credit risk; levels of supply and demand and market prices; legislation or regulations throughout the world that affect Hillgrove’s business; insurance expenses; the risk of an adverse decision or other outcome relating to governmental investigations; class actions or other claims; growth in costs and expenses; and risk of adverse or unanticipated market, financial or political developments (including without limitation in relation to commodity markets).

You are cautioned not to place undue reliance on forward-looking statements. These forward-looking statements are based on information available to us as of the date of this Document. Except as required by law or regulation (including the ASX Listing Rules) we undertake no obligation to update these forward-looking statements.

This Document is provided for informational purposes only and is subject to change without notice. Subject to any obligations under applicable laws, regulations or securities exchange listing rules, Hillgrove disclaims any obligation or undertaking to release any updates or revisions to this Document to reflect any change in expectations or assumptions. Nothing in this Document should be interpreted to mean that future earnings per share of Hillgrove will necessarily match or exceed its historical published earnings per share, or that there has been no change in the affairs of Hillgrove since the date of this Document.

Nothing contained in this Document constitutes investment, legal, tax or other advice. The information in this Document does not take into account the investment objectives, financial situation or particular needs of any recipient. Before making an investment decision, each recipient of this Document should make its own assessment and take independent professional advice in relation to this Document and any action taken on the basis of this Document.

All currency referred to is Australian dollars (\$) unless otherwise indicated (e.g. US\$).



**Competent Person's Statement**

The information in this release that relates to the 2016 Mineral Resource Estimate for Giant is based upon information compiled by Mr Peter Rolley, who is a Member of The Australian Institute of Geoscientists. Mr Rolley is a full-time employee of Hillgrove Resources Limited and has sufficient experience relevant to the styles of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code)'. Mr Rolley has consented to the inclusion in the release of the matters based on their information in the form and context in which it appears.

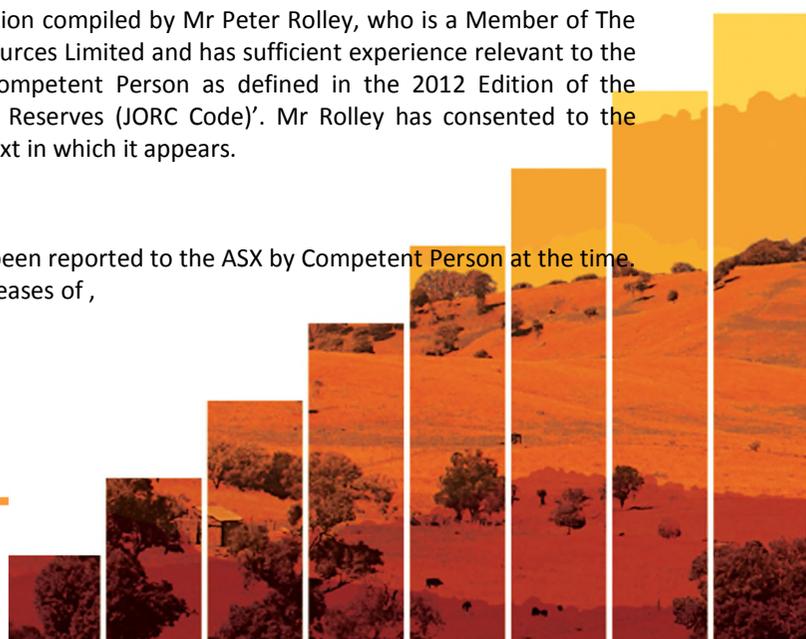
The information in this release that relates to the 2013 Mineral Resource not including Giant is based upon information compiled by Ms Michaela Wright, who is a Member of The Australasian Institute of Mining and Metallurgy. Ms Wright is a former full-time employee of Hillgrove Resources Limited and has sufficient experience relevant to the styles of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code)'. Ms Wright has consented to the inclusion in the release of the matters based on their information in the form and context in which it appears.

The information in this release that relates to Ore Reserves is based upon information compiled by Mr Lachlan Wallace, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Wallace is a full-time employee of Hillgrove Resources Limited and has sufficient experience relevant to the styles of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code)'. Mr Wallace has consented to the inclusion in the release of the matters based on their information in the form and context in which it appears.

The information in this release that relates to Exploration Results is based on information compiled by Mr Peter Rolley, who is a Member of The Australian Institute of Geoscientists. Mr Rolley is a full-time employee of Hillgrove Resources Limited and has sufficient experience relevant to the styles of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code)'. Mr Rolley has consented to the inclusion in the release of the matters based on their information in the form and context in which it appears.

**Exploration Results Here-In**

All exploration drill results, soil sampling images, and rock chip results have previously been reported to the ASX by Competent Person at the time. The results reported herein are reported in the form and context of the original ASX releases of , 15 May 2015, 18 Oct 2016, 25 May 2017, 20 Oct 2017.



**1. KANMANTOO MINE – THE KEY**

**2. KANMANTOO MINE – WHAT HAVE WE LEARNED**

**3. EXPLORATION IN THE REGION**

*Utilising existing infrastructure and cash flow at Kanmantoo to  
create Company transforming mining projects*



Hillgrove Resources Ltd (ASX:HGO) operates the Kanmantoo Copper-Gold Open Pit in the south-east of South Australia.

Located approx. 55kms from Adelaide

Grid power, water on site

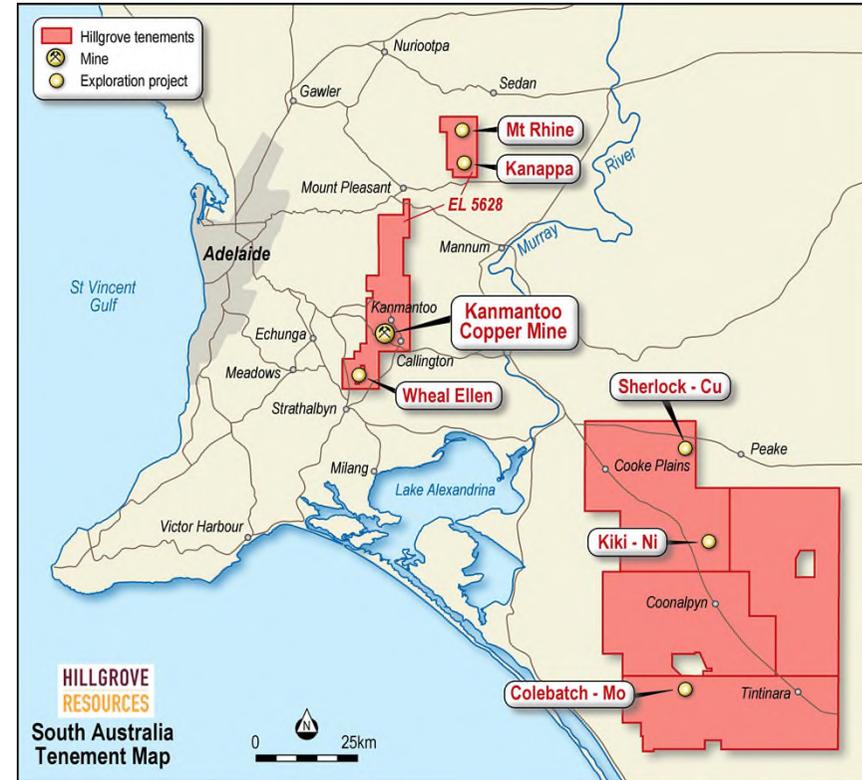
Local labour force

Awards for Community Consultation

Leader in Environmental Rehabilitation practises

Low cost mill and Tailings Facility operational

Open pit in cash generating phase



### KEY TAKEAWAYS

- Infrastructure fully operational and permitted
- Ideal location for services and on-site labour

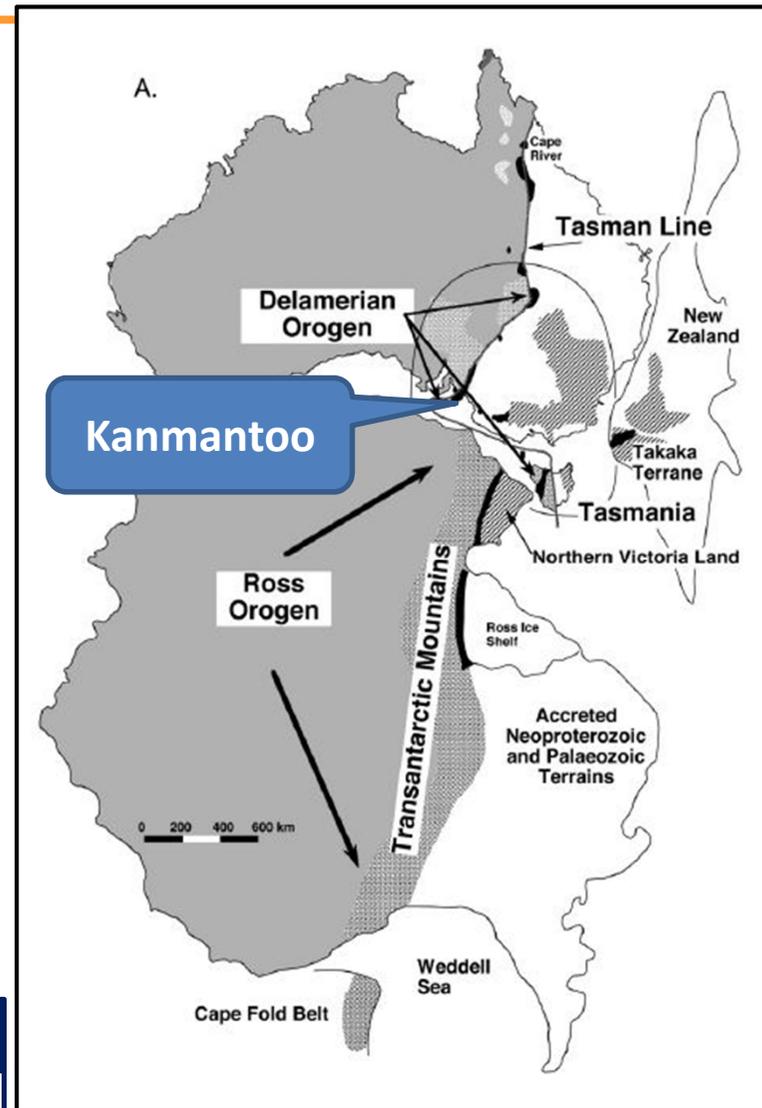


The Kanmantoo Copper-Gold Mine is located along the Tasman Line of the Delamerian Orogen of south-east South Australia.

The Tasman Line (Foden et al, 2006) is interpreted to represent the continent-vergent deformation zone of the Early Cambrian, then its transition in mid-Cambrian to an Andean subduction margin and magmatic arc, and finally an era of extensional tectonics.

The magmatic arc, where exposed, in western Victoria and western Tasmania hosts Stavelly, Mt Lyell, Roseberry, Hellyer and Henty copper-gold and base-metal deposits.

In mainland Australia, the Tasman Line is predominantly under-cover.



### KEY TAKEAWAYS

- Continental scale structures
- Where volcanics exposed, large orebodies



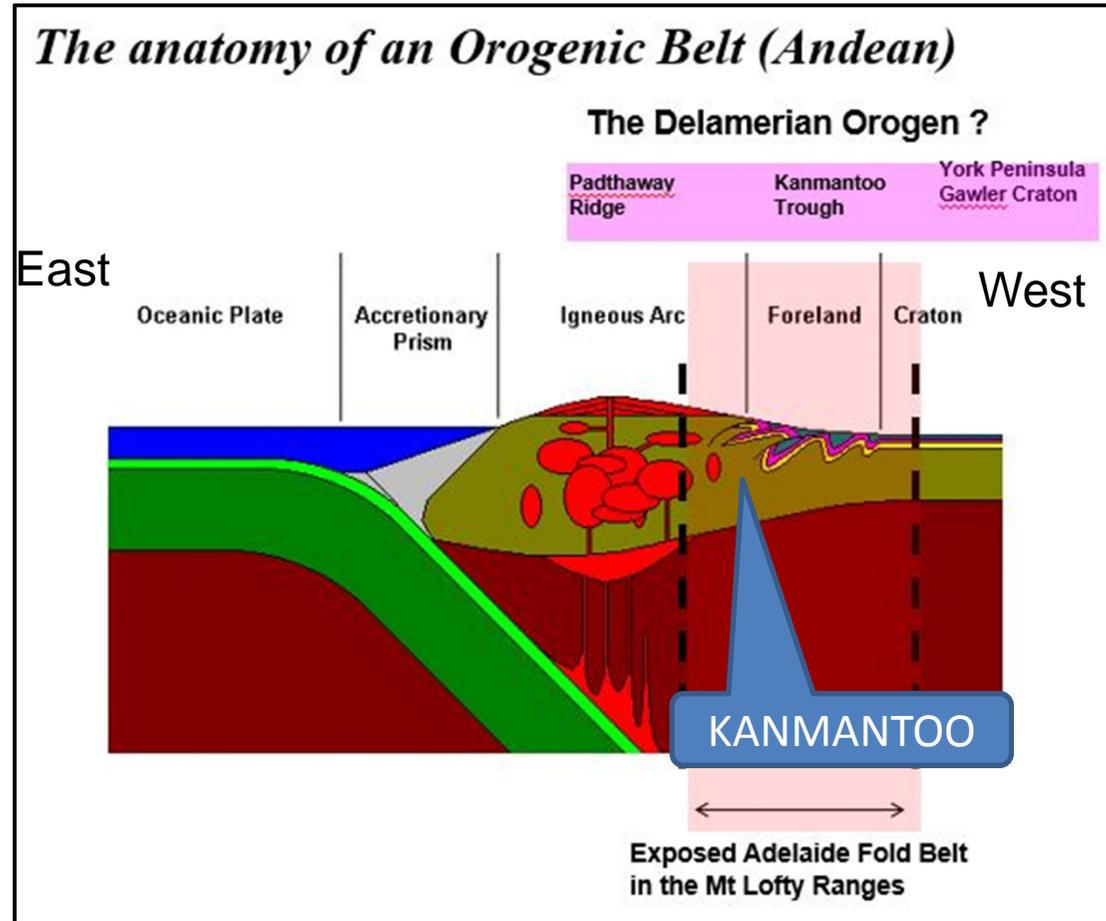
A quick re-cap

Here is an interpretation of the Delamerian Orogen in south-east South Australia (after Belperio et al, 1998 and Foden et al, 2006)

Kanmantoo is located in the rift basin – the Kanmantoo Trough

And the Kanappa – Mt Rhine projects are located at the margin of the Magmatic Arc and the Kanmantoo Trough

The age of the Magmatic Arc granites is 492.8 => 480 Ma



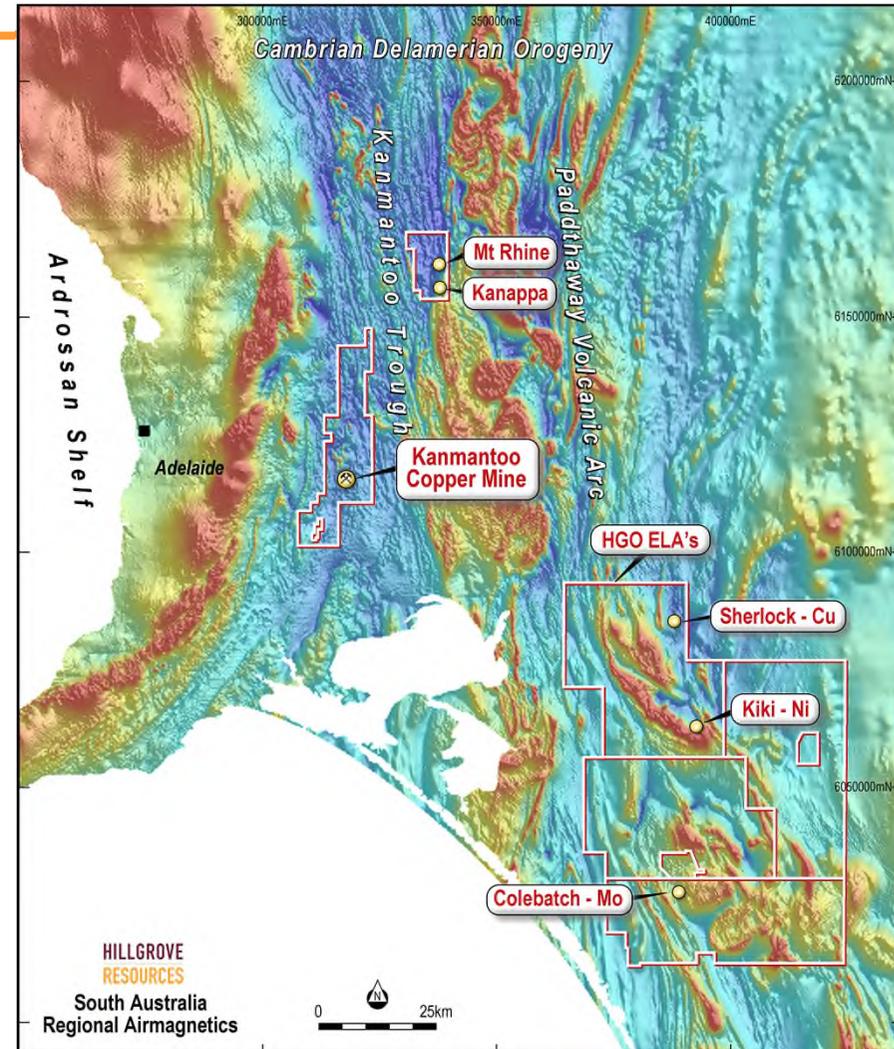
The regional magnetics clearly show the Kanmantoo Trough sedimentary basin and the magmatic arc (Padthaway Ridge) to the east

Significant projects for Hillgrove within the Delamerian Orogen include

**Kanmantoo Cu-Au**

**Kanappa Cu - Au**

**Mt Rhine Cu – Au**

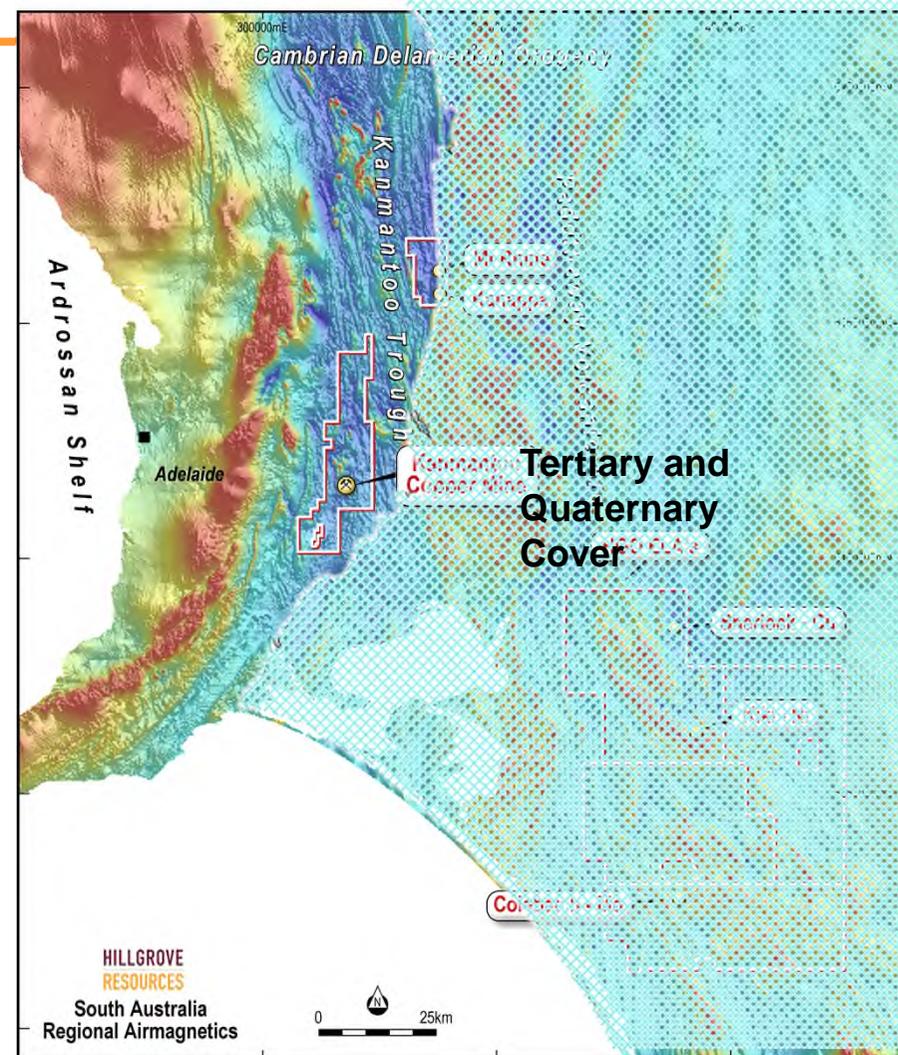


### KEY TAKEAWAYS

- Strong Cu-Au endowment
- Prospective areas under deep cover

And then there is the portion of the  
Magmatic Arc that is now covered by  
the Murray Valley sediments

So what have we learned from the  
mining of Kanmantoo about the types of  
orebodies that could be found,  
undercover?



### KEY TAKEAWAYS

- Strong Cu-Au endowment
- Prospective areas under deep cover

Dating of the copper-gold lodes shows a late Cambrian – early Ordovician age

469 Ma – Focke, 2010

492 Ma – Wilson, 2009

Earliest igneous activity within the pit are peraluminous dykes subjected to D2 deformation, but pre-mineralisation  
– dating is in progress (Uni Adelaide – Dr R. Lilly)

A late, undeformed, alkali feldspar granite at the mine site is overprinted by destructive potassic feldspar alteration (Dr Roger Taylor)



### KEY TAKEAWAYS

- Magmatic activity is evident late Cambrian
- Mineralisation is late Cambrian and possibly related to regional extensional tectonics



Mineralising system is Fe-Cu-Au-Bi  
Note \* Fe rich garnet, biotite, chlorite with ore zones (HyLogger – DPC)

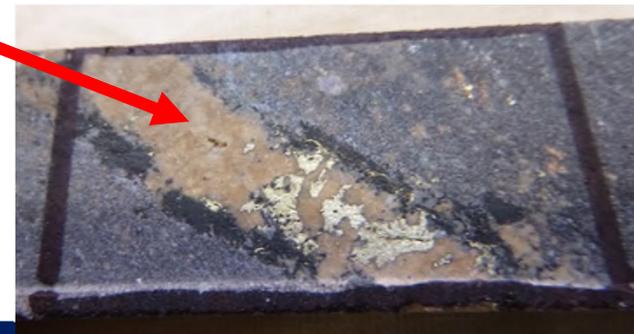
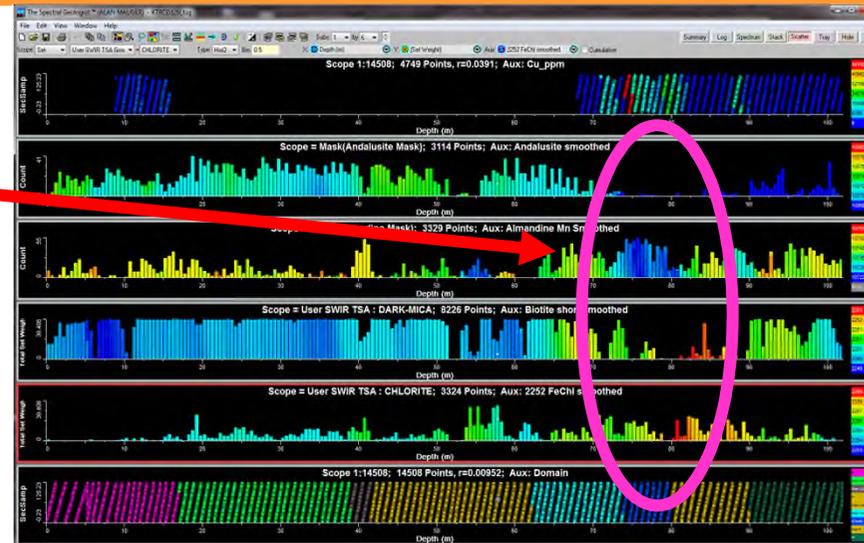
Fluids are acidic and likely magmatic

Fe as both magnetite and pyrrhotite

Last deformation event is K-rich with sulphides  
Dating is in progress

Gold rich lodes to 105g/t Au with low copper  
are late and quartz rich  
e.g. 5m @ 32.3g/t Au, 0.3% Cu

Where else do we see these patterns?



### KEY TAKEAWAYS

- Kanmantoo appears coeval with magmatic fluids and intrusives
- It is a Cu-Au endowed system, that happens to outcrop



The Kanappa Cu-Au zone is 50kms from Kanmantoo

A series of pegmatites and aplites intrude into a sequence of Fe and potassic altered schists and carbonates

Soil copper zone 4.4kms long

Geochem zoning from west to east

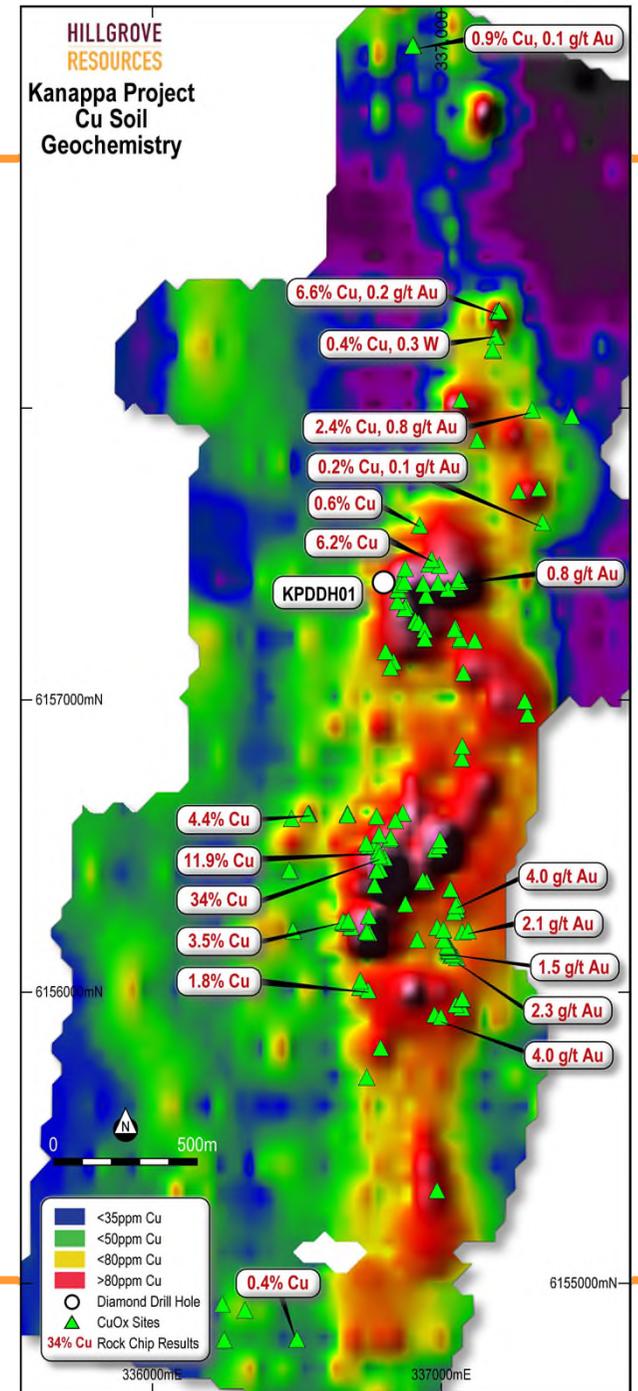
**Cu-Zn => Cu-Bi => Cu-Au => Au => W**

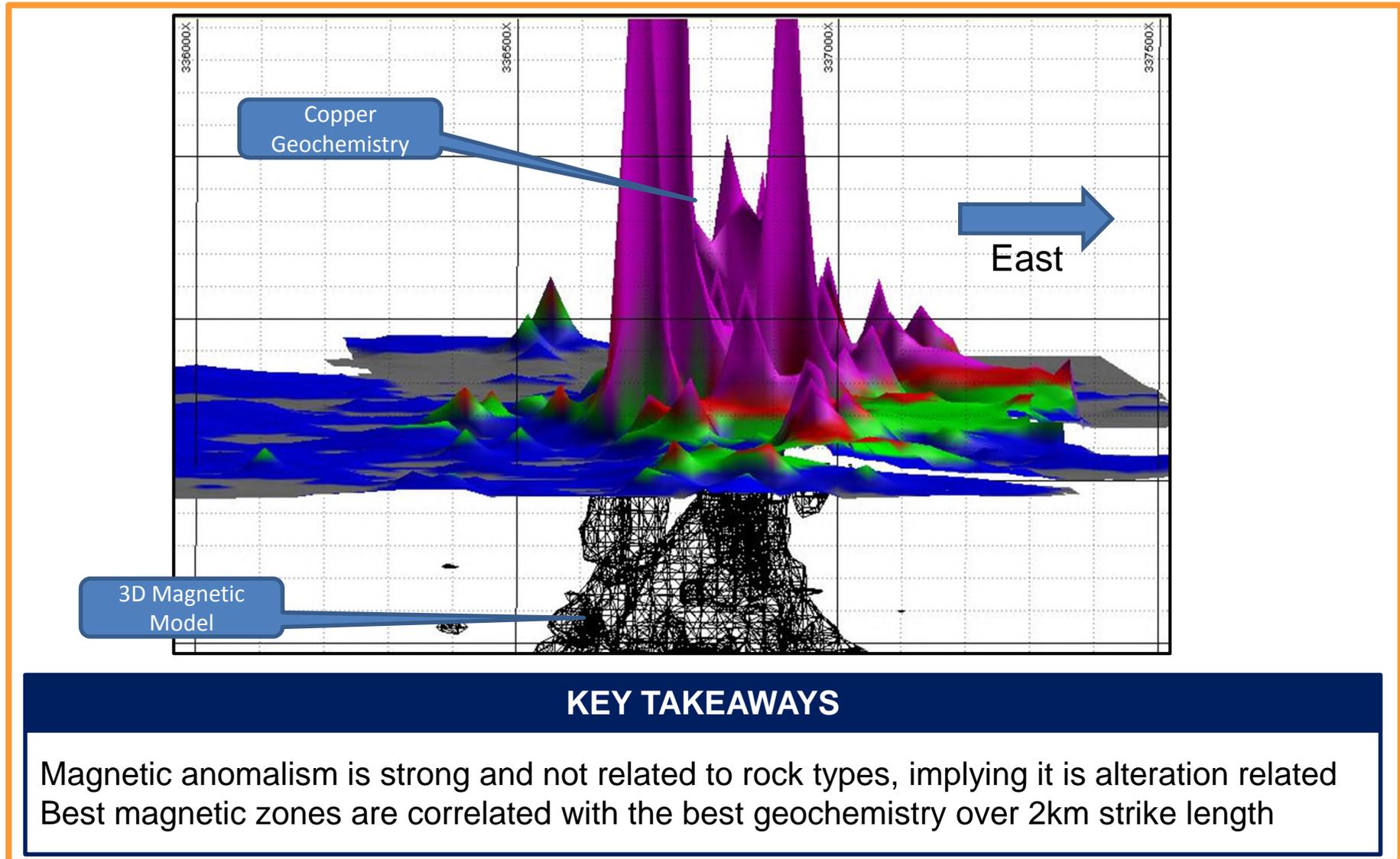
**Peak rock chips of 34% Cu 4.0g/t Au** (separate samples)

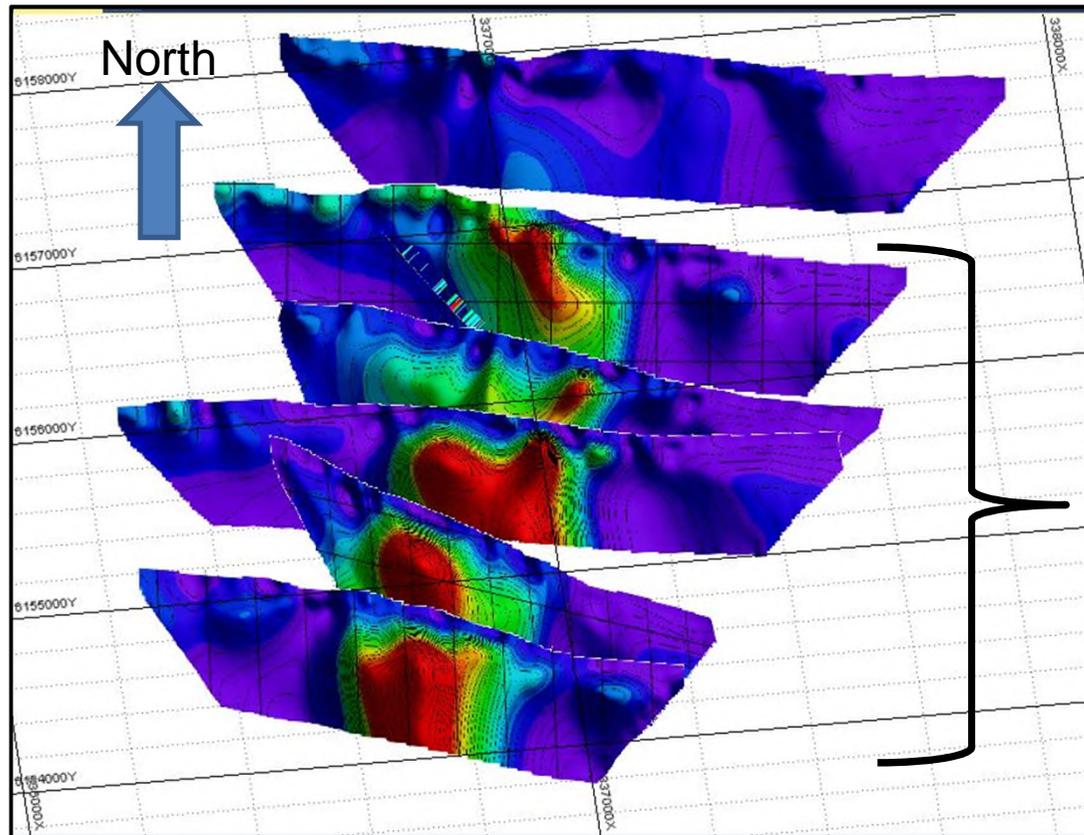
To date – Soil geochemistry  
 Ground magnetics  
 Pole-dipole IP

**KEY TAKEAWAYS**

- Large hydrothermal alteration and Cu-Au mineralised system







2 km long zone of  
coincident  
Geochemistry,  
Magnetics,  
IP Chargeability

250m wide

Open to south

### KEY TAKEAWAYS

Large scale coincident Cu-Au geochem, magnetics, and IP anomaly  
Strong alteration system proximal to Igneous Arc magmatism to east



The Mt Rhine copper-gold zone is 10kms from Kanappa

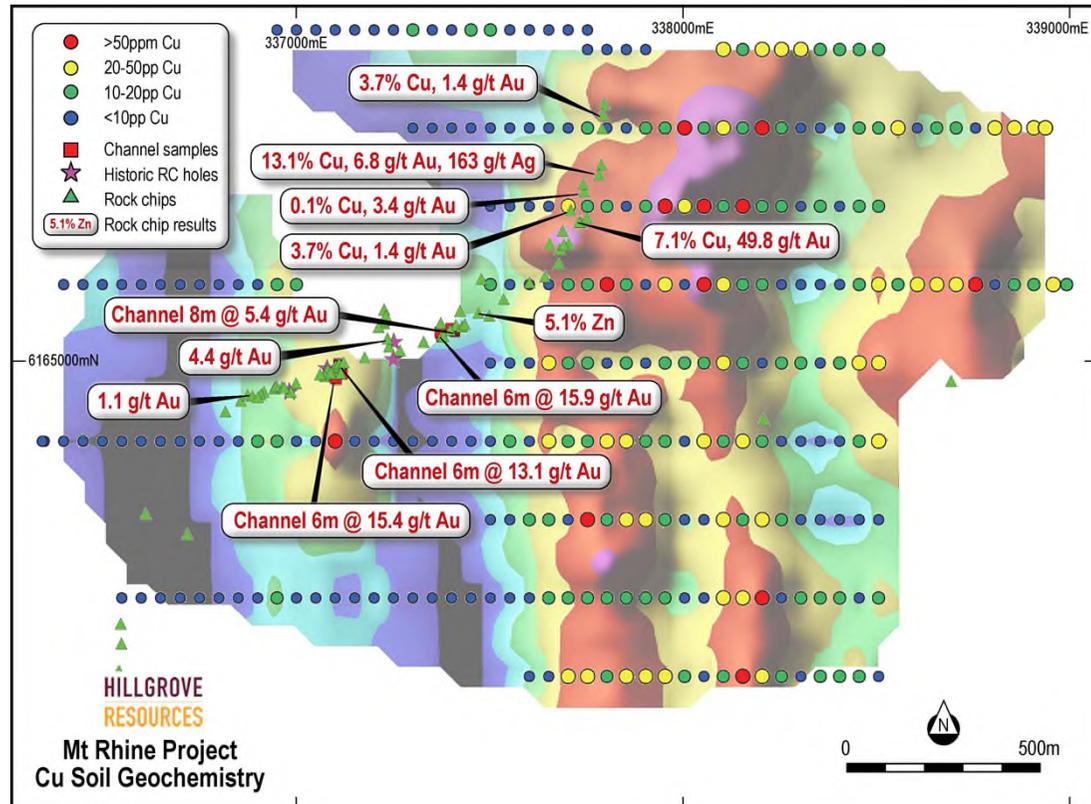
Soil copper zone **1.7kms** long

Peak rock chips of **13% Cu 49.8g/t Au** (separate samples)

Peak Channel Sampling of 6m @ 15.9g/t Au

**Much higher gold tenor cf Kanappa**

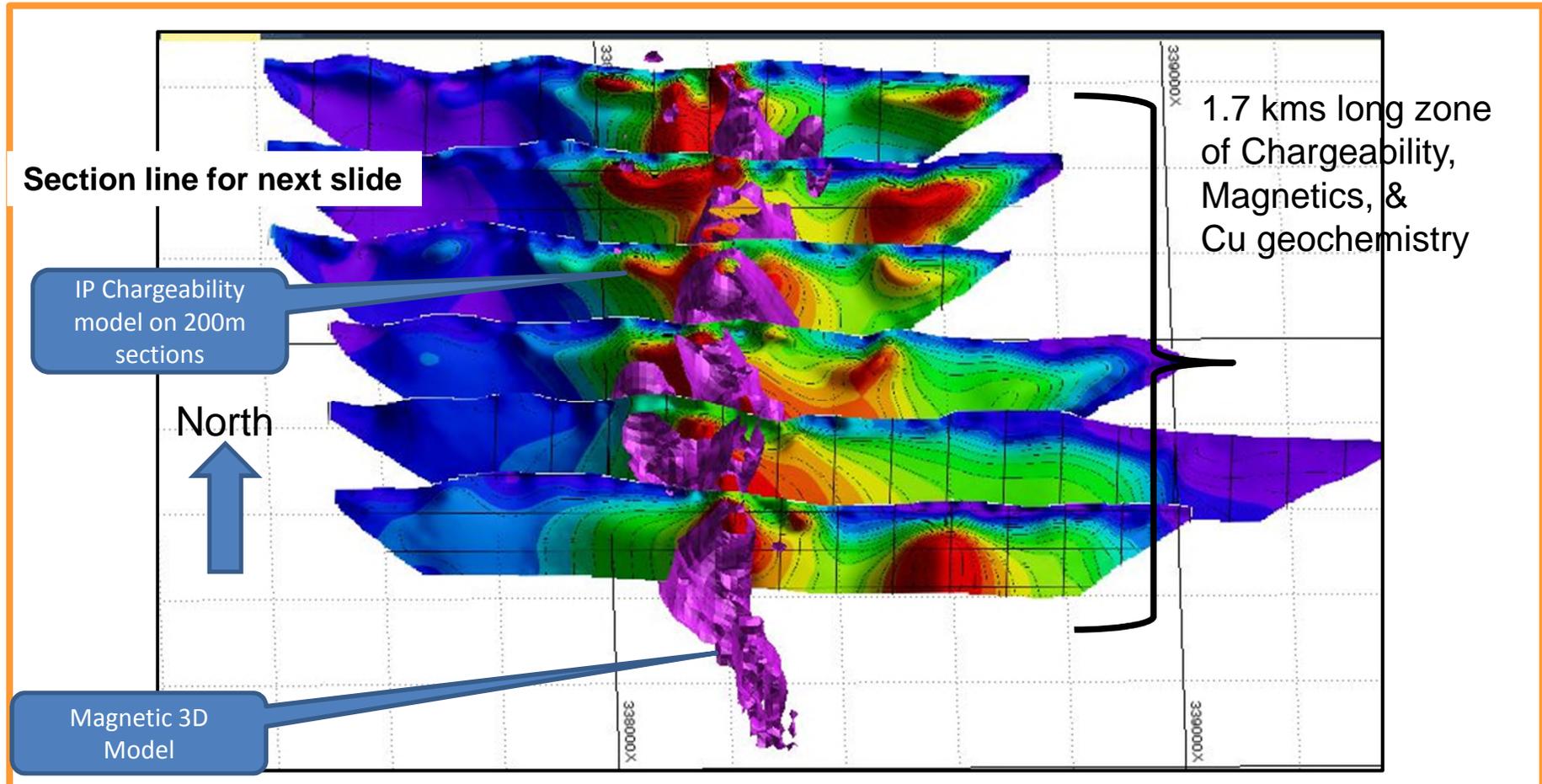
Also completed soils, mags, IP



### KEY TAKEAWAYS

- Large scale alteration system with
- Zone of Cu, IP and magnetic anomalism over 1.7kms long and 500m wide

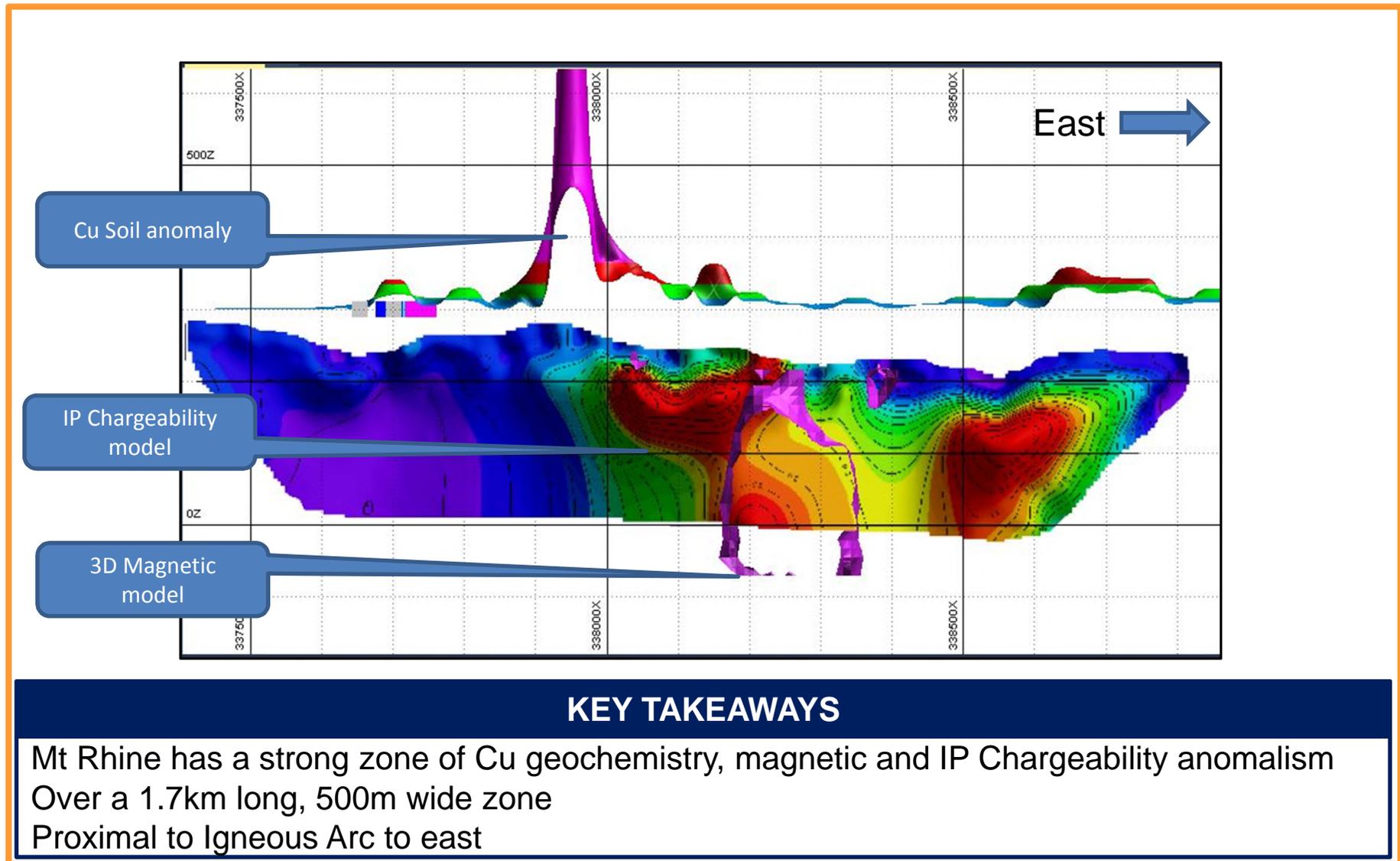




### KEY TAKEAWAYS

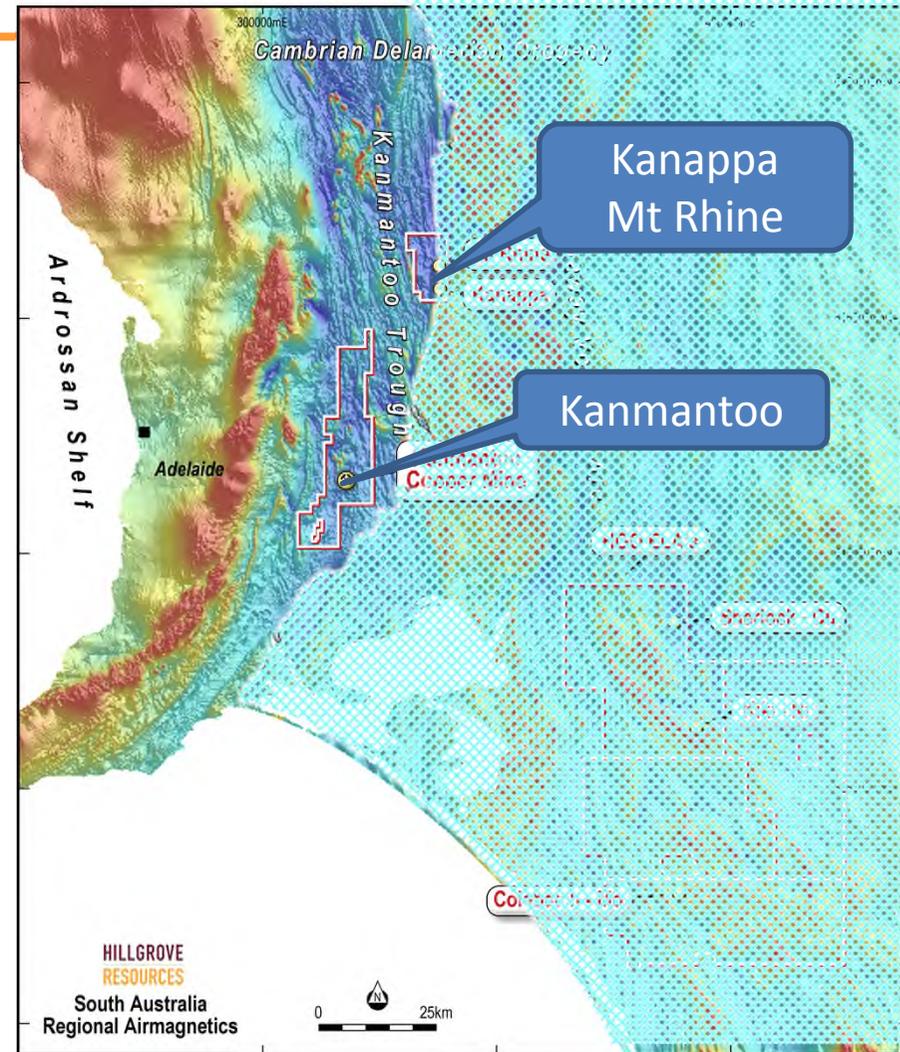
Stacked sections of IP chargeable model, with 3D magnetic model superimposed  
Continuous zone of IP and magnetic anomalism





Significant projects for Hillgrove within the OUTCROPPING portion of the Delamerian Orogen include

<b>Kanmantoo</b>	<b>Cu - Au</b>
<b>Kanappa</b>	<b>Cu - Au</b>
<b>Mt Rhine</b>	<b>Cu - Au</b>



**KEY TAKEAWAYS**

- The geochemical footprint is large and being characterised by Hillgrove



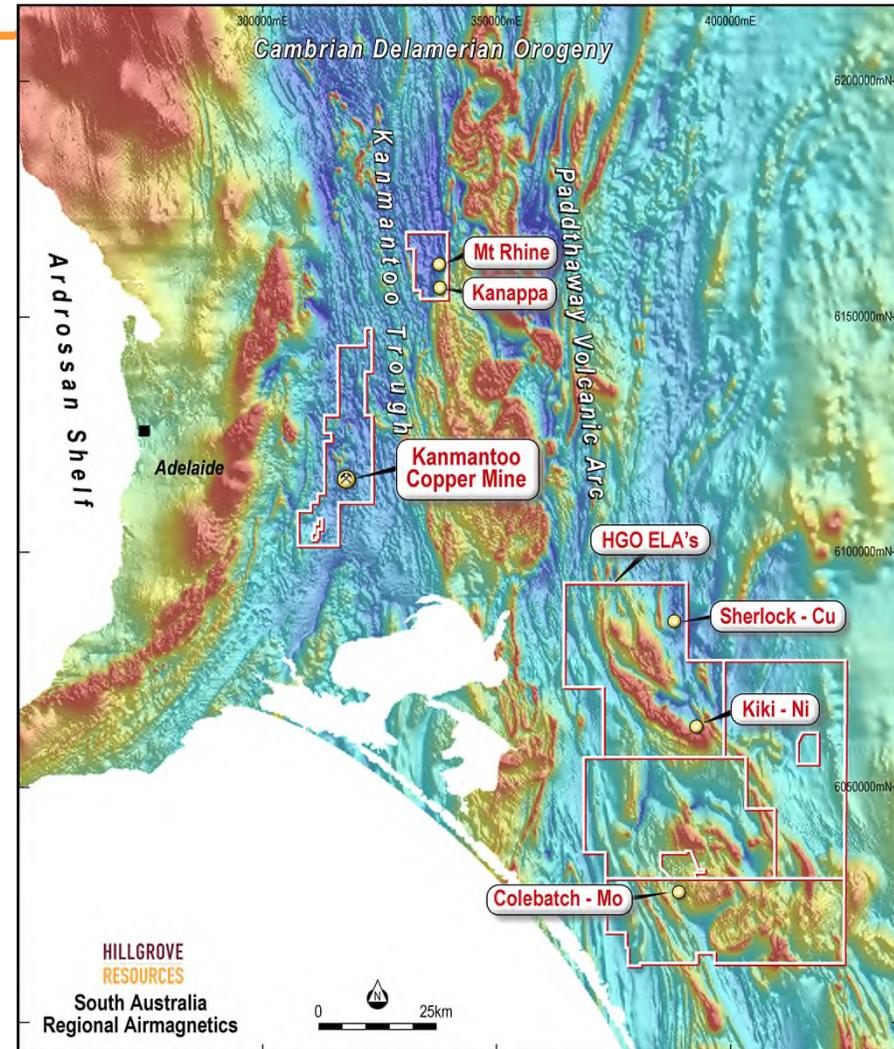
### And then there is the Under-cover portion of the Magmatic Arc

The work underway at Kanmantoo is enabling Hillgrove to

- characterise the Geochemical Footprint of Cu-Au mineralisation
- develop vectors to the next Cu-Au orebody.

A geochemical footprint is a much larger target to discover (kms in size)

And thereby to identify the areas of economic potential – under cover



### KEY TAKEAWAYS

- The geochemical footprint is large and being characterised by Hillgrove



## KANMANTOO – WHAT HAVE WE LEARNED

- It is a large Fe-Cu-Bi-Au system
- It appears to be post peak-metamorphism
- It appears to be coeval with magmatic activity
- Strong gold endowment is late and associated with low Cu
  - 5m @ 32.3g/t Au, 0.3% Cu

## REGIONAL COPPER-GOLD PROJECTS

- Magmatic copper-gold zones with high tenor copper – gold
- Large scale alteration systems
- Kanappa drill ready and to commence within 2 months



## WORKING FROM KNOWN TO THE UNKNOWN

**Kanmantoo is located within a significant copper-gold province  
Which is being un-covered by Hillgrove Resources**

***Utilising existing infrastructure and cash flow at Kanmantoo to create  
Company transforming mining projects***

