



ASX/Media Release

INVESTIGATOR  
RESOURCES  
LIMITED



23 August 2017

### **Investigator Resources: Community presentation**

Attached is the presentation to be given by IVR Managing Director, John Anderson at the Global Maintenance Upper Spencer Gulf Conference and Trade Expo in Whyalla tomorrow Thursday, 24 August 2017.

**Web:** [www.investres.com.au](http://www.investres.com.au)

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Managing Director

*Investigator Resources Limited*

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# Competitive Paris silver project & innovative copper-gold exploration in South Australia

Community Presentation  
John Anderson (Managing Director)

*GMUSG/SACOME Conference*

Whyalla 24<sup>th</sup> August 2017

ASX: IVR



# Disclaimer & Competent Person Statement



## DISCLAIMER

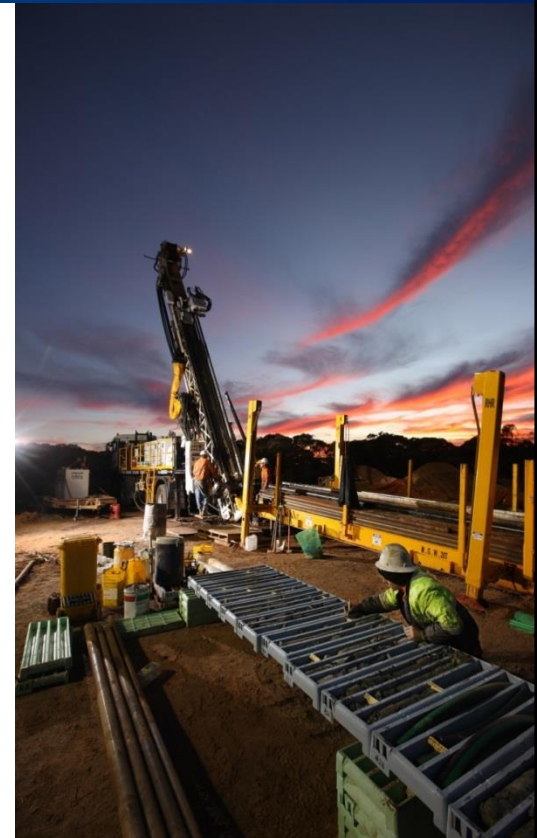
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## COMPETENT PERSONS STATEMENT

The information in this presentation relating to exploration results is based on information compiled by Mr. John Anderson who is a full time employee of the company. Mr. Anderson is a member of the Australasian Institute of Mining and Metallurgy. Mr. Anderson has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Anderson consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The information in this presentation that relates to Mineral Resources Estimates at the Paris Silver Project is extracted from the report entitled "Significant 26% upgrade for Paris Silver Resource to 42Moz contained silver" dated 19 April 2017 and is available to view on the Company website [www.investres.com.au](http://www.investres.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.



# CORPORATE OVERVIEW: Investigator Resources (IVR)

## *Punching above its weight*



- South Australian based/focussed Junior Explorer
- 5 geologists; total >100 years Australian & overseas experience; 60 years in SA
- First mover into new discovery opportunities in the Northern Eyre Peninsula (NEP)
- Demonstrated success with initial Paris discovery - arguably the best new silver deposit in Australia
- Well-conceived flow-on copper-gold targets with Tier 1 potential

### Capital Structure as at 18<sup>th</sup> August 2017

ASX listed since 2007	IVR
Shares (ordinary)	584.4M
Options (Unlisted)	11.0M
Share Price (19 Aug 2017)	3.2c
Market Cap (A\$m)	\$18.7M
Cash (30 June 2017)	\$2.8M

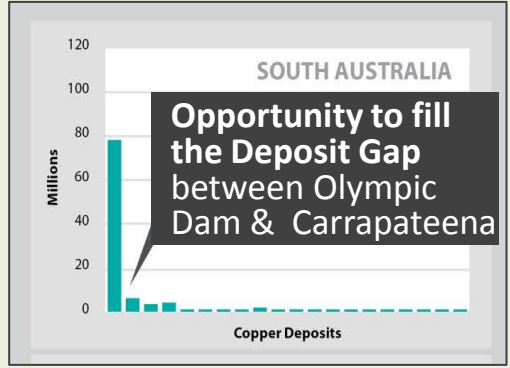
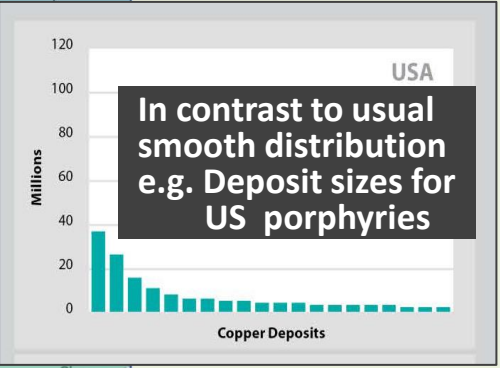
### Share Register as at 18<sup>th</sup> August 2017

CITIC Australia	11.5%
Old Mutual Global	5.5%
Laurium Investments	5.0%
Board & Management	1.9%
Top 20	37.1%
Total shareholders	3,362

### Board Members

Dr David Ransom	Non-Exec. Chairman
John Anderson	Managing Director
Bruce Foy	Non-Exec. Director
David Jones	Non-exec. Director

# SOUTH AUSTRALIA'S CHALLENGE & OPPORTUNITY: Where are the missing Big Deposits?



**Olympic Dam, a behemoth iron oxide copper gold (IOCG) deposit, discovered in 1975.**

**Prominent Hill & Carrapateena were discovered in 2000s, defining the Olympic Dam (OD) IOCG belt.**

**How do we find the next Big Ones to continue to build this region's resource inventory, choices for responsible development & wealth?**

# EXPLORERS' CHALLENGE:

## Working out how to find the whales amongst the small fry



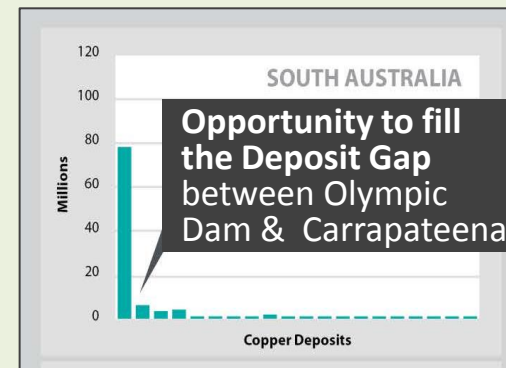
The industry has been challenged exploring even at shallow depths.

Mono-tactical campaigns exhaust discoveries & find a lot of false anomalies.

No minerals terrain is exploration mature; we have simply used up our current ideas & technologies.

The next-generation of discoveries don't have to be deep or remote.

There will be new ore bodies discovered in previously explored regions like the Northern Eyre Peninsula (NEP).



Spot the whale!



Credit: Jimmy Hurford

# NATIONAL UNCOVER AUSTRALIA INITIATIVE: Putting our Geoscience Skills back into the nation's minerals discovery



**A new era of minerals exploration & discovery for our nation**



[uncoveraustralia.org.au](http://uncoveraustralia.org.au)

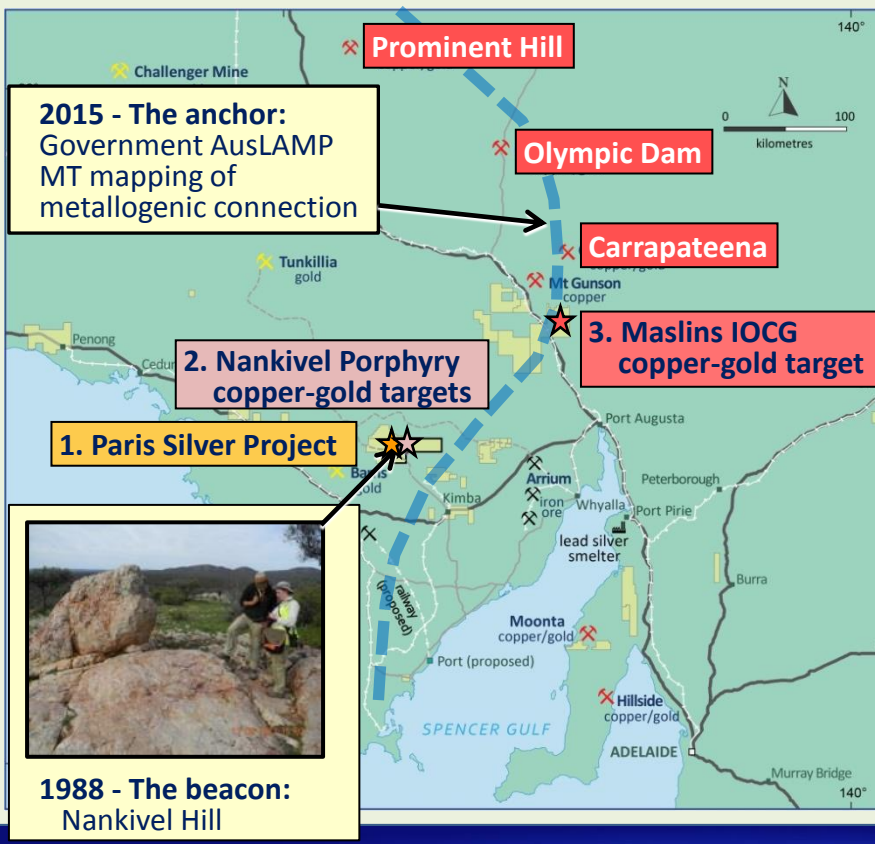
Refocussing & co-ordinating our international research expertise in Australia – *Time to re-invest in our future discovery skills & resource inventory*

IVR is one of the few Junior participants

Smart ideas are already coming out of data-rich & research-savvy South Australia through integrated & collaborative research by government, industry & universities

**Investigator Resources & your region are at the forefront of this initiative**

# IVR's STRATEGY: Focus on the greenfields southern extensions to the pedigree OD Belt; *Expanding the discovery space & deposit spectrum*



**NEP offers the next-level of challenge & opportunity of old geological models & shallow, previously prohibitive cover.**

We are achieving a reset through identifying technological breakthroughs under collaboration with researchers & government agencies:-

- remapping to updated geological concepts
- applying new or imported targeted deposit styles
- low-level soil & pathfinder geochemistry (CSA Global)
- precise isotopic dating (Geological Survey of SA)
- magneto-telluric “MT” mapping of metal corridors (Uni. Of Adelaide, Geoscience Australia, GSSA)

These have variously contributed to IVR's discoveries of the Paris silver deposit in 2011 & the Nankivel porphyry system with copper-gold potential in 2016....both **new deposit styles for South Australia**. Plus the crafting of Maslins as a new generation of IOCG target in 2016.

***To make mineral discoveries, we explore new ideas as well as geological space & time.***

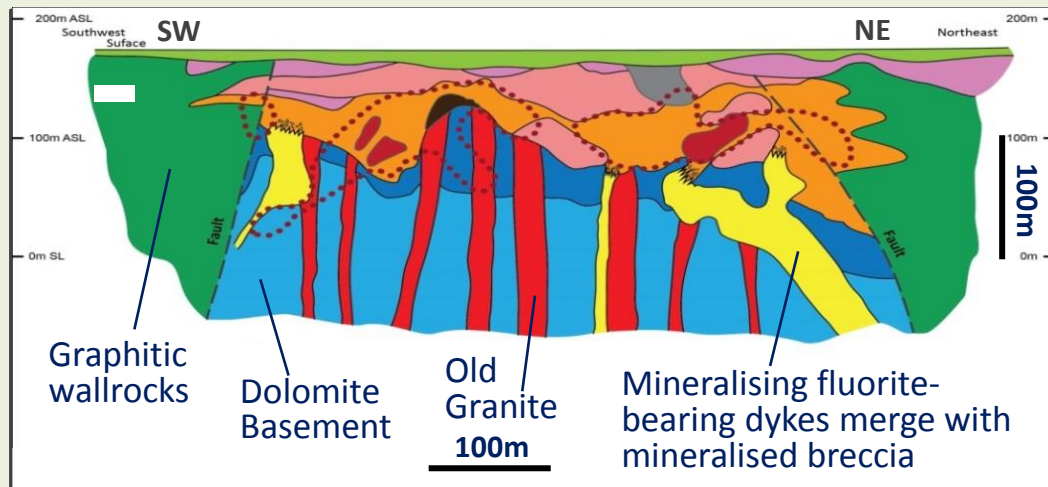


# PARIS SILVER DEPOSIT: A new deposit style for South Australia

*Intermediate-sulphidation (IS) epithermal in subvolcanic polymict breccia*



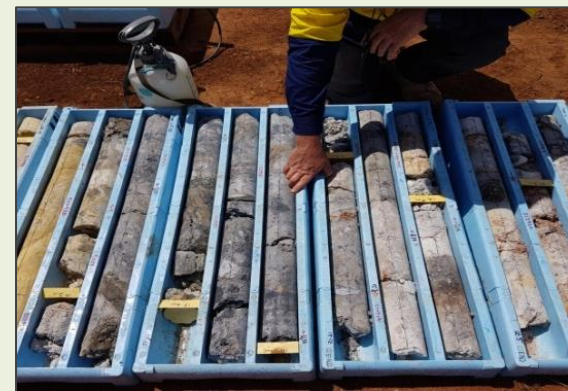
Summary geological section  Main silver mineralisation zones



The Paris silver resource is **shallow** at between 5m and 160m below surface.

Standard silver sulphide plus native silver in pyrite (fully oxidised to 10m - 40m depth); **positive initial metallurgical trials (2013)**

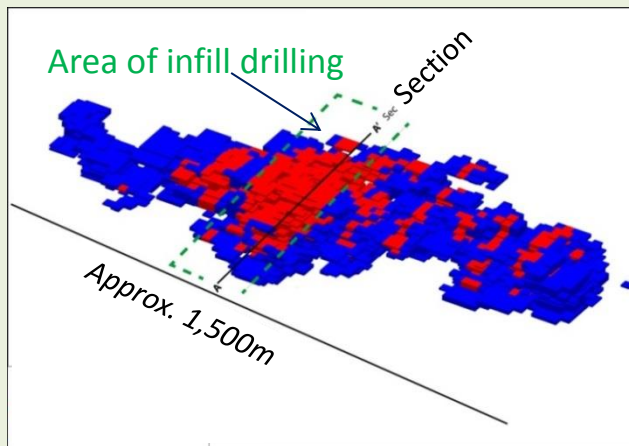
Main host is soft clay altered polymict breccia (orange on section) with variable & in places very **high silver grades** (red). A challenge for resource estimation that is now met with increasing ounces & grade and with positive open-pittable & **free-dig** possibilities.





Category	Tonnage	Silver Grade	Contained silver	Lead Grade	Contained lead
	(Mt)	(g/t)	(Moz)	(%)	(kt)
Indicated	4.3	163	23	0.6	26
Inferred	5.0	119	19	0.6	29
<b>Total</b>	<b>9.3</b>	<b>139</b>	<b>42</b>	<b>0.6</b>	<b>55</b>

50g/t silver cut-off; Density: Indicated - 2.20t/m<sup>3</sup>, Inferred - 2.22t/m<sup>3</sup> and Average - 2.21t/m<sup>3</sup>.



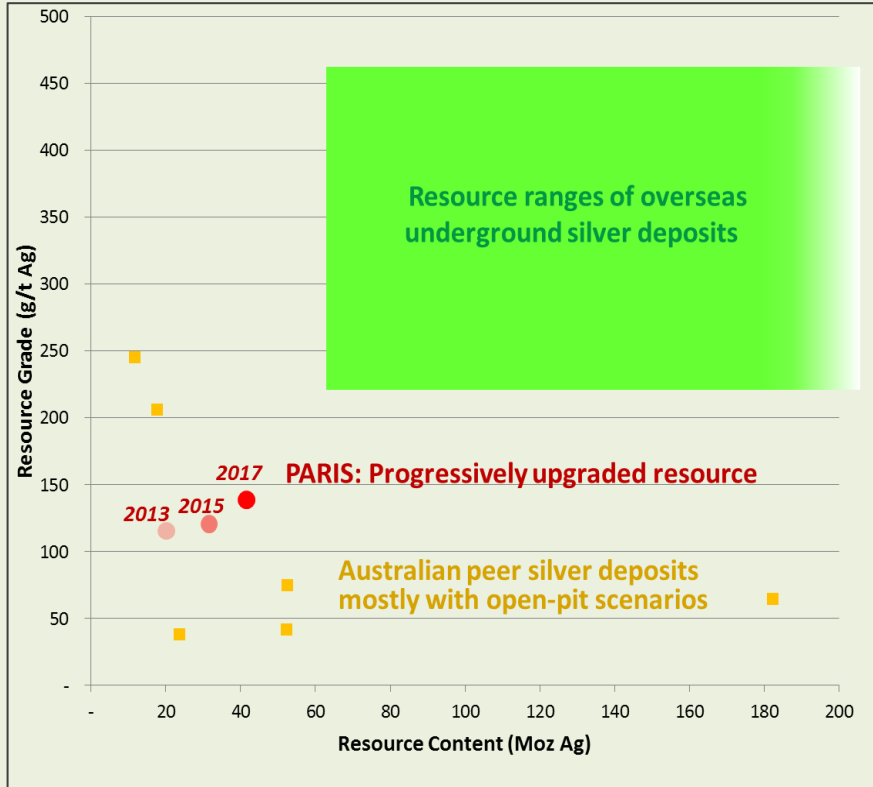
Oblique view of resource block model

2016 infill drilling produced:-

- **Greater confidence in high-grade zones**
- **26% increase in contained silver ounces over prior 2015 resource at same 50g/t Ag cut-off grade**
- **55% of ounces converted to Indicated (red)**

Anticipate the Inferred component (blue) will also readily convert with possible higher grade.

# IVR considers Paris to one of the best advanced silver projects in the country due to its high-grade for an open-pittable scenario



Grade is much higher than those of other likely open-pittable projects.\*

Preliminary metallurgical testing (2013) showed good leach recoveries of 65 – 97% with optimisation & flotation options.

Advanced metallurgical study underway

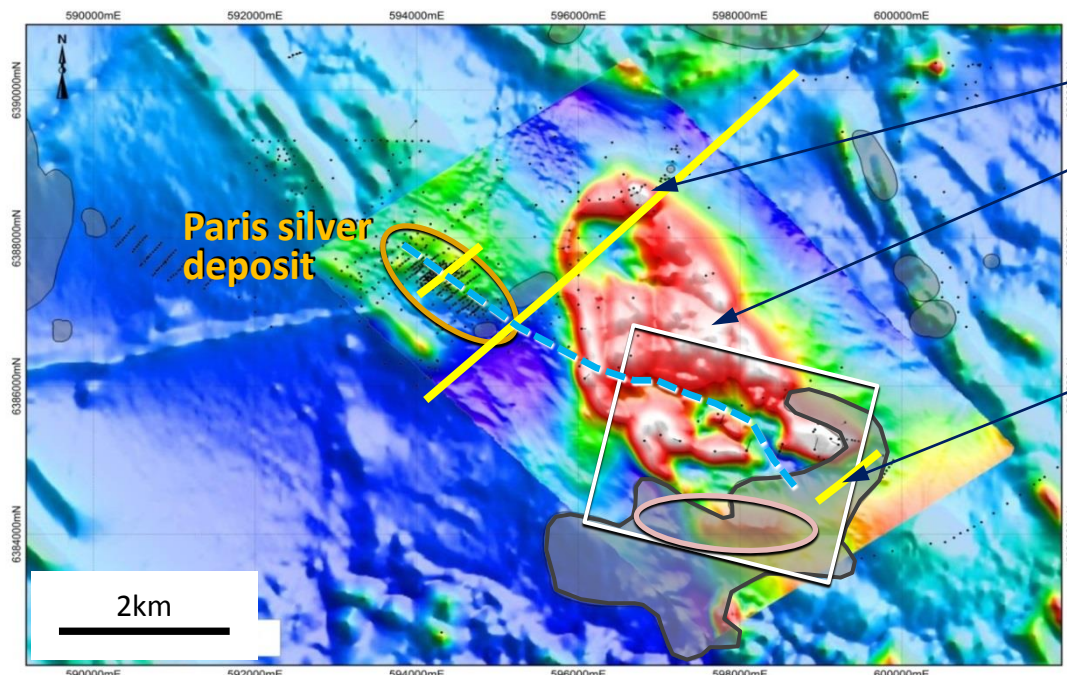
Hydrological study underway with test holes drilled in potential groundwater sources and in the resource footprint.

\* Graphical comparison of the Paris Silver Project resource grade and contained ounces with other silver deposits (as at April 2017 - No credits are added for other metals in multi-element deposits)

# PARIS-NANKIVEL FIELD: Potential for larger porphyry copper-gold deposits



Paris style of epithermal deposit often goes hand-in-hand with porphyry copper-gold systems



Drill collars (to end of 2016) on magnetic RTP-TMI image

## Other interpreted porphyry indicators:

- Helen Cu Au Ag skarn*
- Intrusive complex (early, magnetic; demagnetised by later hydrothermal alteration)*
- NE mineralising dyke set*
- Connecting structure*
- Nankivel Hill Advanced argillic root zone (dated 1586+/-8My)*



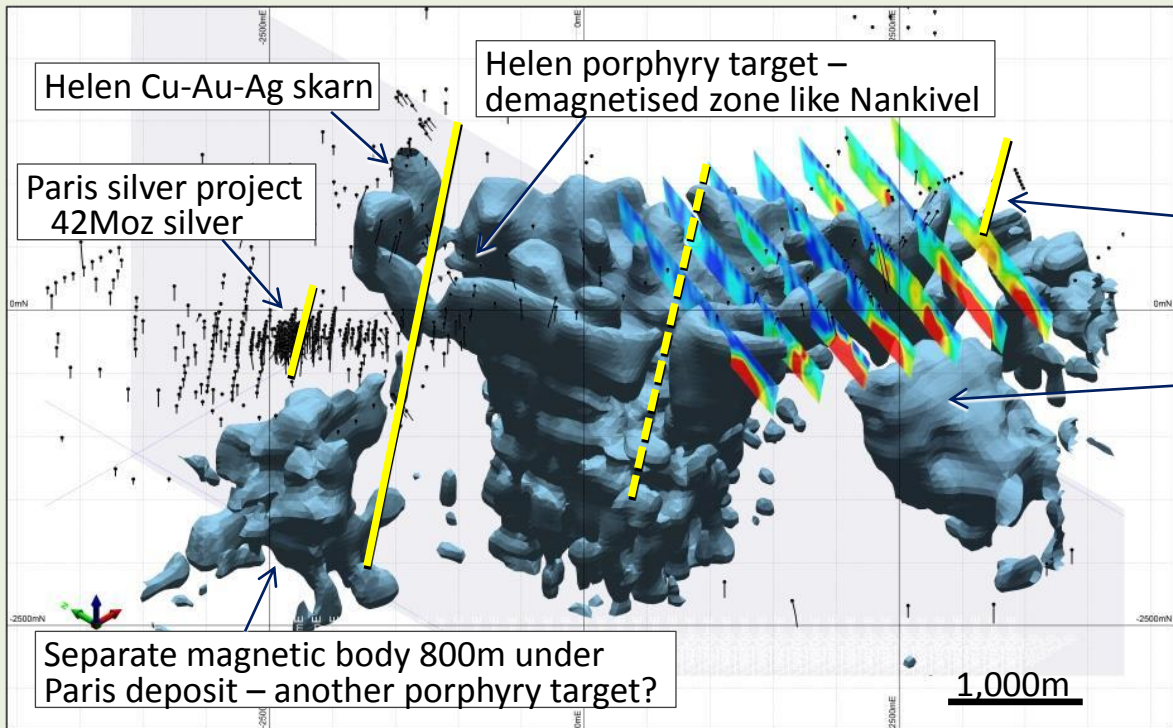
## IP targeting

- IP geophysics survey in late 2016 over Nankivel porphyry target area
- Nankivel IP porphyry copper-gold target*
- No drill access under current heritage restrictions – to be reviewed.

# NANKIVEL PORPHYRY COPPER-GOLD TARGET: Integrated geology/geochem/IP (induced polarisation) geophysics target



*Oblique view looking from the southwest of the IP chargeability profiles, drillholes & modelled magnetic bodies (grey; 16500 SI magnetic shell \*)*



**Large undrilled 2km by 700m chargeability anomaly** (red zones on IP sections spaced at 400m intervals).  
About 150m depth to top of IP target.  
Adjacent to the alunite dyke outcrop on Nankivel Hill on same orientation as the Paris mineralising dyke (yellow).  
Overlies “smooth” magnetic body – possible magnetite porphyry core – top 500m below surface.  
**The combination of an IP anomaly with an advanced argillic cap is a desirable combination for porphyry copper-gold targeting.**

(\* Caon Geophysics, 2015)

# NANKIVEL PORPHYRY COPPER-GOLD TARGET: Multiple supporting alteration & pathfinder geochemical vectors ; A second new style for South Australia



## LEGEND

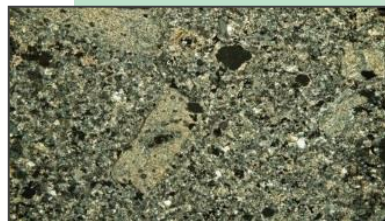
- Argillic altered volcanic & metasediment outcrop
  - Advanced argillic altered breccia
  - IVR Diamond Drill hole
  - IVR RCP Drill Hole
  - Prior RCP Drill Hole (no ICP-MS assays)
  - Propylitic alteration incl. inner actinolite (ac)
  - Phyllic alteration
  - Bismuth + Tellurium > 5ppm
  - Geochemical Target Vector
  - IP anomaly
  - Interpreted porphyry copper target
- Bi  $\geq$  1ppm  
 Bi < 1ppm
- } 33 Maximum Bi + Te ppm



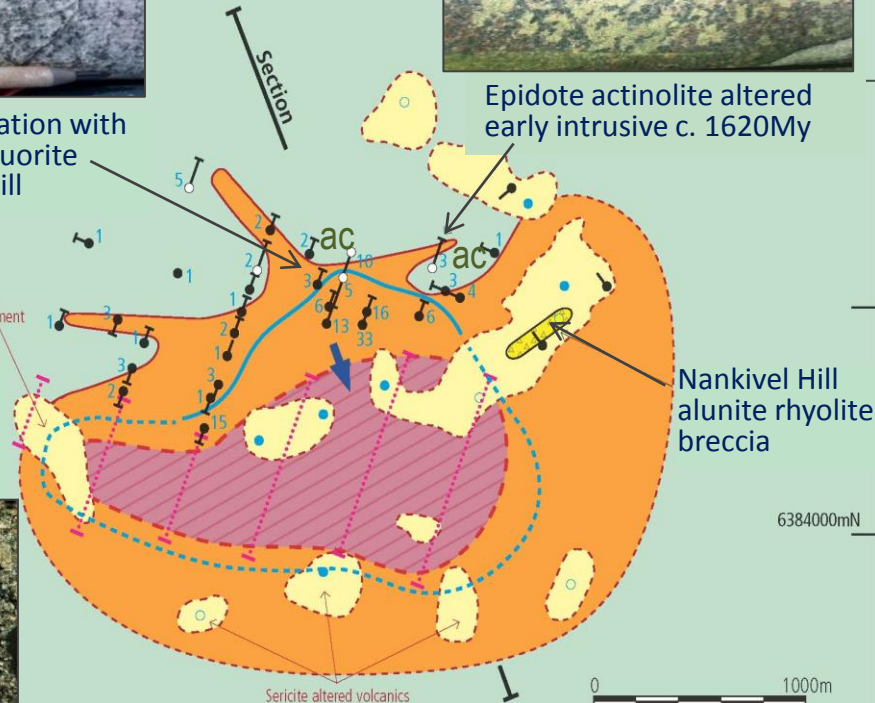
Kaolinite pyrite alteration with trace alunite topaz fluorite similar to Nankivel Hill



Epidote actinolite altered early intrusive c. 1620My



Microscope view of strong phyllic alteration with relict porphyry texture



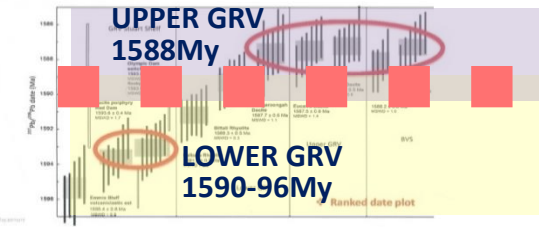
# EXPANDING THE DISCOVERY SPACE & DEPOSIT SPECTRUM: Seeking new targets based on a unifying model for the OD Mega-event



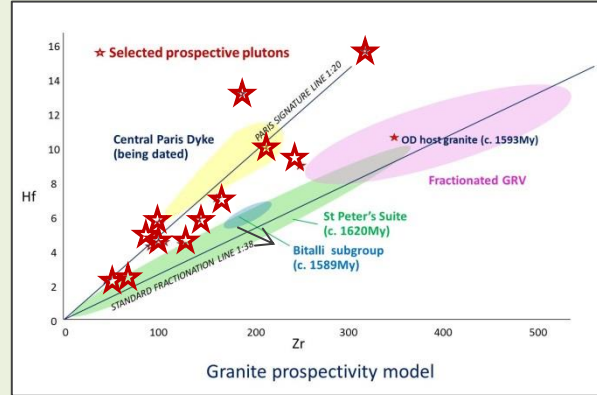
**Maslins: New generation of IOCG gravity target – Right place, size, depth, density**

## Geological Survey Micro-dating

Ca-TIMS Results



**IVR Concept:**  
Common age 1589My & F Association-  
Olympic Dam  
Maslins  
Nankivel  
Paris



**Pathfinder geochemistry**  
Using Paris mineralising signature to select intrusives with potential for further epithermal-porphyry centres



Project/Target	Opportunity	Program
PARIS SILVER PROJECT	On pathway to development	Advanced metallurgical testing & hydrological study towards PFS late 2017
NANKIVEL PORPHYRY Copper Gold	Potential to be major transformational discoveries	Review heritage boundaries & recommence drilling by end September quarter; IP survey adjacent porphyry target areas
MASLINS IOCG Copper Gold		Heritage survey; Drilling late 2017
REGIONAL GRANITES	First mover on multiple potential Cu Au Ag centres	Ground assessment of epithermal/porphyry potential

*We welcome your interest in IVR as a future commercial partner.*



# MINERALS EXPLORATION ON BEHALF OF ALL SOUTH AUSTRALIANS

*In the community; With the community; For the community*



Minerals Exploration is a **highly technical** business requiring smart and **dedicated people** who have the potential to **add significant wealth** to our communities.

**New discoveries are required** to rebuild our **minerals inventory** and provide choices for **responsible development** to maintain the backbone of our **State's wealth**, the nation's **export income** and **global standing**. This requires **discovery-focussed research, facilitation** and **attitudes** from every-one.

Australia was **never exploration mature** or destined to dry up as a **mining nation**. Much of **our well-honed and regarded skills** were exported to make the easy discoveries overseas that we had exhausted in this country. As first-pass discoveries wane globally, attention and **skills are returning to Australia** as it regains the mantle of the **preferred exploration destination** with both mineral endowment and stability. Our country is offering and is prepared to take on the **next level of exploration challenges and opportunities**. A few of us were willing to champion the challenge early so are now **at the forefront** with their selected regions like the Northern Eyre Peninsula for the coming domestic drive.

Australia now needs to **reinvest in the next round of targets exploration technology** to rebuild the discovery rate & our exportable skills. This should be a **whole of community** exercise that recognises and welcomes the efforts of its mineral explorers.

For those who think otherwise - *"THE STATE CAN'T WAIT, MATE!"*

Thank You.