



24 August 2016

#### **Mining 2016 Presentation**

Attached is the Company's presentation made today at the Mining 2016 Resources Convention in Brisbane.

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# Investigator Resources Limited A silver start to an Olympic goal



# Presentation Mining 2016 Resources Convention Brisbane, 24th August 2016



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#### COMPETENT PERSONS STATEMENT

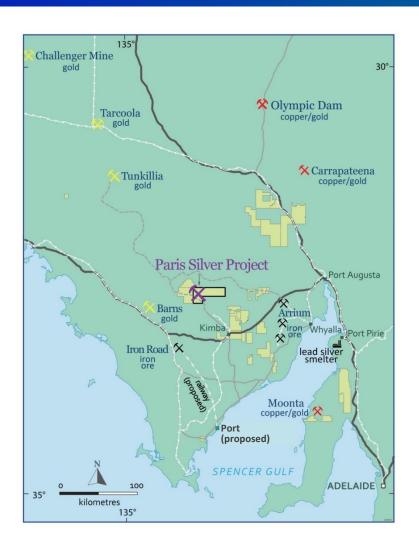
The information in this presentation relating to exploration results is based on information compiled by Mr. John Anderson who is a full time employee of the company. Mr. Anderson is a member of the Australasian Institute of Mining and Metallurgy. Mr. Anderson has sufficient experience of relevance to 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 "Upgraded Paris resource estimate: 60% increase to 33Moz silver" dated 9 November 2015 and is available to view on the Company website 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.



### Paris Silver Project: Path to Development





**ASX: IVR** 

#### 33Moz high grade 116g/t silver deposit

- Inferred Resource
- 100% IVR
- Positive open-pit mining & processing attributes
- Exploration potential for more silver resources
- Good location to mining & transport infrastructure
  - Near regional rural centre
  - Spencer Gulf industry & ports
  - Port Pirie lead silver smelter

# Investigator's 2016/2017 priority is putting Paris on the pathway to production

- Drill resource to Indicated Resource status
- Add to positive metallurgical tests
- Tests on identified local water supply
- On-going internal project studies

#### **Planning for:**

Prefeasibility by mid 2017

**BFS** by mid 2018

# IVR Corporate Overview: Well Positioned with a strong Silver Asset & Strong Silver Price with Renewed Bullion Interest



Capital Structure	
ASX listed since 2007	IVR
Shares (ordinary)	580.6M
Options (Listed)	114.2M
Options (unlisted)	16.1M
Share Price (18 August 2016)	3.8c
Options Price " " "	<b>0.8c</b>
Market Cap (A\$m)	\$22.1M
Cash (31 July 2016)	\$6.2M

Raised \$5million through placement in July

Share Register as at 18 August 2016		
CITIC Australia	11.6%	
<b>Board &amp; Management</b>	1.8%	
Top 20	34.3%	
Total shareholders	3,548	



Source: Goldprice.org

### Silver: 35% Price Increase in 2016 & Tracking Gold Upturn

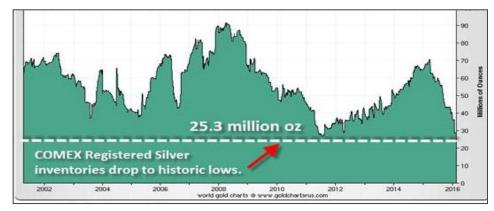


# **Good fundamentals Increasing Demand**

Increased ETF purchases & Indian demand

#### **Decreasing Supply**

- Comex silver inventories have fallen from 70Moz to about 25Moz (a historic low) over the last 12-months
  - Less scrap supply
  - Reduced production grades
  - Closures of lead zinc silver mines



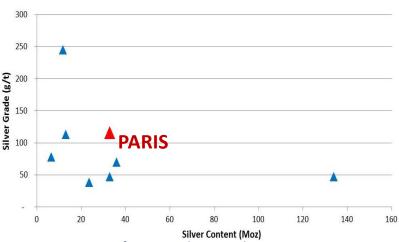
Comex registered silver inventory (15 years) Source: Goldchartsrus

#### Silver is tracking & re-rating upwards against gold

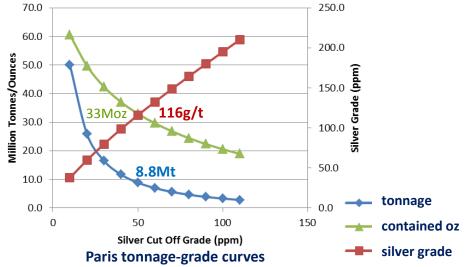
- Price ratio recently trending towards historic level of 60:1
- Recent silver price surge outperformed forecasts

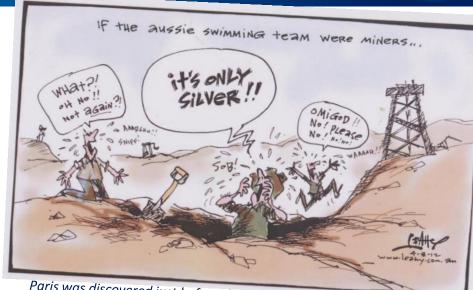
# Paris silver resource: Competitive grade & upside





**Comparison of Paris with Australian peer resources** \* Based on published resources & reserves; Silver contents only





Paris was discovered just before the London Olympics in 2012

# Paris Silver Resource (100% IVR held) Believed to be one of the best new Australian silver deposits with:

- 33Moz contained silver
- 116g/t silver grade at 50g/t cutoff

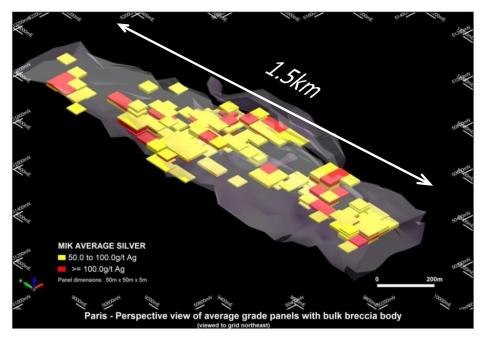
#### **Growth potential both through:-**

- Lowering the cut-off grade for more ounces with improving silver prices; and
- Exploration potential for larger & higher-grade silver deposits within the local Paris field.

### Paris Silver Deposit: Well Placed for Development



Inferred Resource
8.8Mt @ 116g/t silver \*
using 50g/t silver cut-off



Oblique perspective view looking grid northeast representing the distribution of >50g/t average silver grade blocks

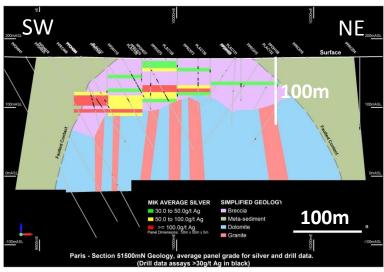
Silver mineralisation lies within an elongate tabular breccia body between 5m & 160m depth from surface, with the bulk of the mineralisation between 50m and 120m depth.

- 33Moz contained silver
- High open-pit silver grade
- Offering mining advantages:
  - ✓ Shallow & amenable to bulk mining
  - ✓ Potential low-cost soft dig
  - ✓ Options for higher-grade starter pits
- Early indications of conventional silver extraction
  - √ 65% 97% initial recoveries in preliminary metallurgical laboratory trials
- Potential local water source
  - ✓ Lower costs than piping in processing water
- Baseline flora & fauna study
  - ✓ No significant species identified

<sup>\*</sup> Upgraded Paris silver Inferred Resource (November 2015)

### Paris Silver Deposit: Open-pit Mining Scenarios





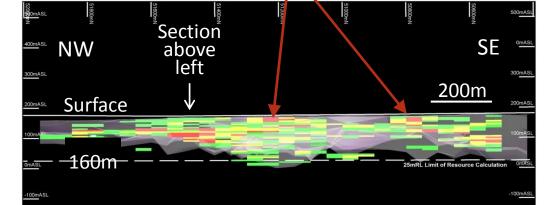
Section view of average grade block model panels within purple breccia host above blue basement

1. Shallow: 5m to 160m below surface with bulk of deposit at 50m to 120m depth



Mostly clay matrix offering possibilities of low-cost soft dig

3. Abundant mineralisation just below cut-off (green) offering mineralised stockpiles for later processing; plus higher-grade starter pit opportunities



Side-on perspective view



# Paris Silver Deposit: Positive Preliminary Metallurgy Tests

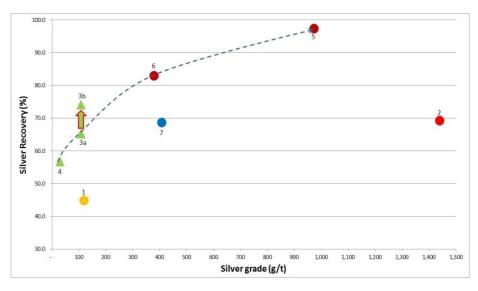


#### 2013 initial laboratory trials showed good results

- ✓ Good leach recoveries (65% 95%) for a range of representative samples
- ✓ Indicates a choice of either leach or flotation processing paths giving flexibility for project design & costing
- ✓ Potential for optimisation upside: e.g. finer grind\*

#### Further metallurgical test work proposed for 2016/17:

- To select optimum metallurgical processing pathways
- Using existing & new large diameter drill samples



#### e.g. Recovery performance of Leach Trials

- 1 Shallow oxidised mineralisation
- 2 Sulphide-rich zone
- 3a Polymict breccia moderate grade ( $P_{80}$  of  $106\mu m$ )
- 3b Polymict breccia moderate grade (P<sub>80</sub> of 53μm)
- 4 Polymict breccia Low grade
- 5 Oxidised iron-rich contact zone (native silver)
- 6 Iron-rich contact zone
- 7 Sulphide in dolomite



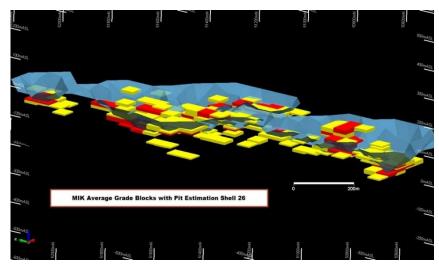
\* 9% increased recovery with trial finer grind

### Paris Silver Project: Conceptual Development Scenarios



Applying best practice operating and cost assumptions, the Company is assessing a number of development scenarios for Paris such as:

- Utilising a suitable mining contractor & modular mobile processing plants to enable flexibility in scaling up to optimal output rates
- Process ore by either a) tank leaching to produce silver doré (more valuable product; lower transport costs);
   b) flotation to produce a silver-lead concentrate (smaller footprint, lead recovery, likely lower capital costs, local ports); or c) leaching a floated concentrate
- Either operate its own metallurgical process plant (higher initial capital costs) or lease a suitable process plant (lower capital costs) and operated by a third party specialist operator (likely higher operating costs)



Oblique perspective view looking at the Pit 26 Optimisation 'Shell', with MIK >50g/t average silver grade blocks

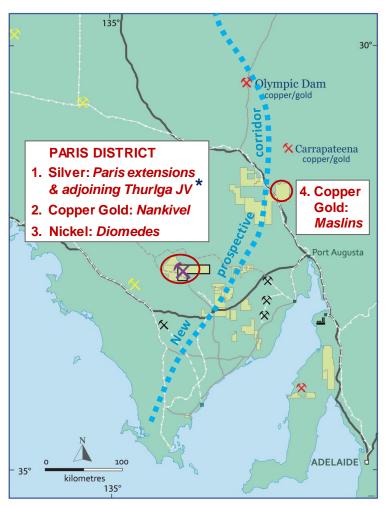
# Paris Silver Project: Investigator's Development Pathway



	<b>2016/17 Objective: Achieve Prefeasibility study mid-2017</b> Cost c. \$3.5m	2017/18 Objective: Achieve Feasibility study mid-2018 Cost c. \$4.5m
Resource	Upgrade resource to Indicated: Selective drilling (12,500m - mostly RCP) Resource re-estimate	Reserve drilling  Modelling & grade control studies for mine design
Mine Design	Preliminary geotechnical study  Continue internal optimisation studies including pit design	Full geotechnical study Pit design & scheduling Contracting/partnership options
Metallurgy & Processing	Additional laboratory metallurgical trials on existing & new drill samples  Establish optimum processing pathway:  • Leaching to produce silver doré; or  • Flotation to produce concentrate & assess any synergies with local smelter  Hydrological drilling (c. 500m) to advance knowledge/advantages of local water supply  Plan permitting pathway	Process & plant design  Full hydrological study incl. deposit area  Tailings dam design  Geotechnical & condemnation drilling for plant, tailings & waste dump areas  Leasing/partnership options  Permitting applications in place

# Significant Flow-On of Exploration Opportunities





\* Thurlga JV with Adelaide Resources; IVR may earn to 75%

ASX: IVR

# Aiming for Tier 1 & 2 company-maker deposits to move Investigator to the next echelon

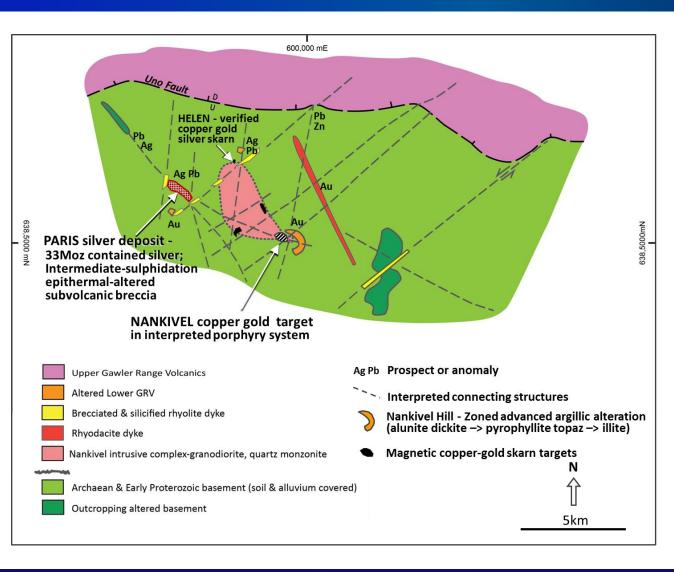
- 1. Conceptually larger silver deposit-styles near Paris
- 2. Porphyry-hosted copper-gold targets in Paris field
- 3. Nickel and other potential metals in emerging new Archaean terrains in the Paris region
- 4. Large IOCG copper-gold target in revitalised extension to Olympic Dam belt

# \$1m of initial exploration drilling planned in 2016/17

Partially co-funded by \$290k grant from South Australian State Government under their PACE incentive & collaborative partnership scheme

# Nankivel skarn/porphyry copper-gold targets





ASX: IVR

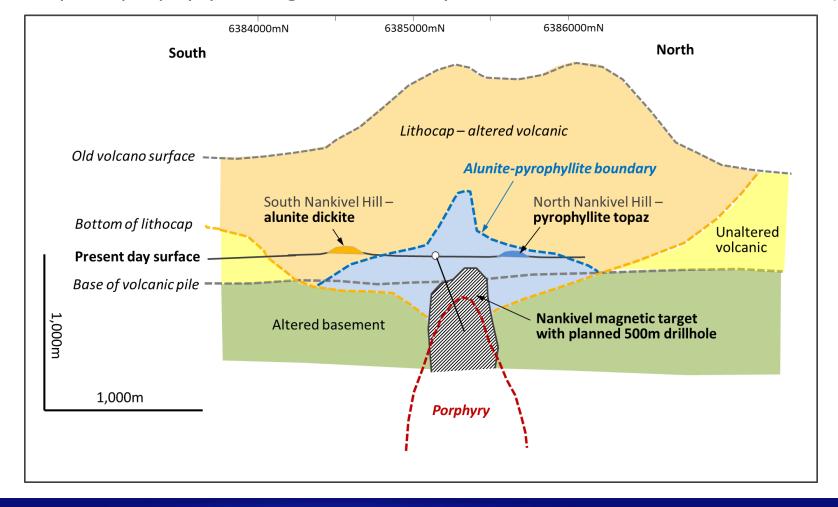
# Paris-Nankivel Minerals System

Widespread alteration lithocap points to epithermal silver-gold & porphyry copper-gold potential

# Main Nankivel copper-gold target – drilling in progress

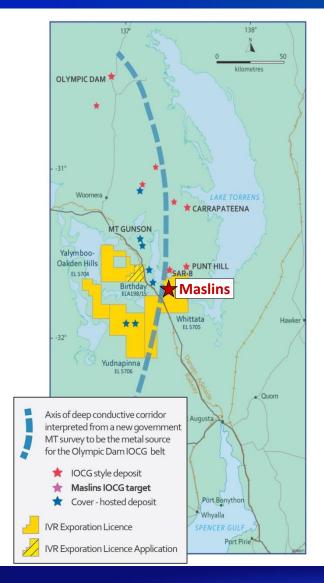


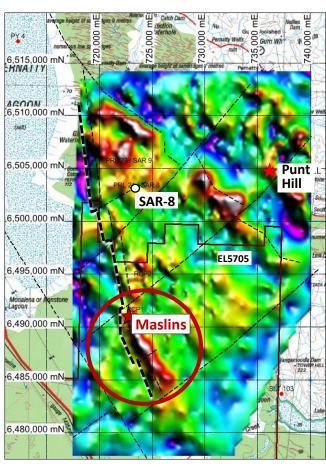
Target section including outcrops of prospective geology indicative of a conceptual porphyry setting as overlain by dashed linework & italicised labels)



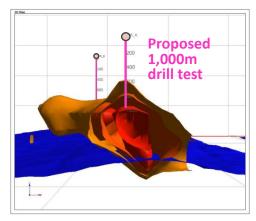
# Maslins IOCG gravity target - in southern end of OD belt







**Gravity plan - Filtered Bouquer gravity** 



**3-D model of Maslins gravity target** Viewed from the southern end.

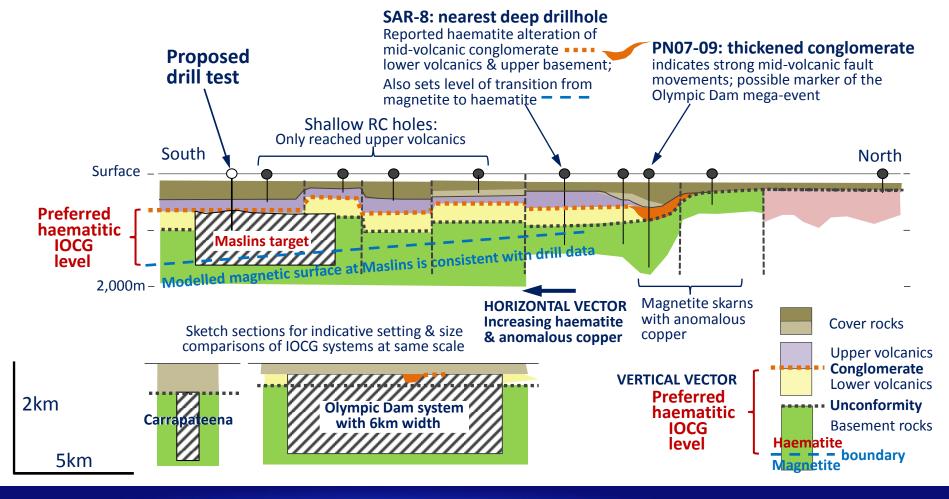
#### **Maslins IOCG Target**

- Gravity anomaly good density contrast
- Modelled as 6km long x 1km diameter horizontal body
- 600m 700m depth to top at prospective IOCG geological position
- Underlain by magnetic zone (modelled top in blue).
   Possibly a deeper skarn zone as expected under the standard IOCG target model.

## Maslins: Using government database to upgrade the IOCG target



**Regional long section looking west**: Past drillholes & data recorded on SARIG database are reinterpreted for supporting geology using modern concepts. Geology projected to shallow-drilled southern end shows an IOCG prospective setting coincident with the Maslins gravity target.



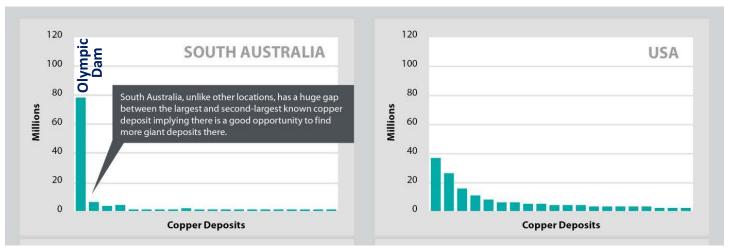
# Maslins: A well-supported IOCG target



- In an extension of the Olympic Dam belt remapped by new national geophysical technology
- Good sized gravity target with potential to fill deposit gap between Olympic Dam and smaller
   IOCG deposits \*
- Upgraded by modern review of surrounding prior drillholes:-
  - At preferred geological level
  - Along prospective direction of regional haematitic alteration vector
- Shape & depth range (0.6 to 1.6km) preferred for modern deep mining technologies

#### Drilling proposed for early 2017 after access permitted.

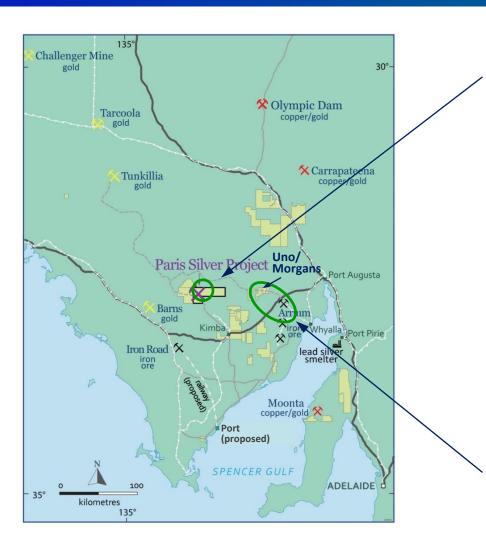
ASX: IVR



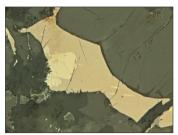
\* Contained copper for the range of deposits in South Australia; compared with the usual smooth distribution for a minerals region shown by copper deposits in the United States (Image: DSD after numerous primary sources)

# Emerging potential for nickel & other metals: in emerging extensive enclaves of likely Archaean basement geology



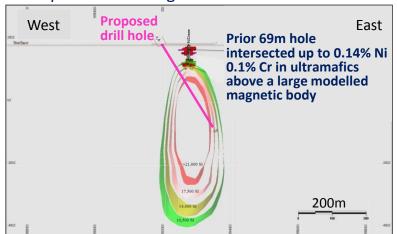


Fresh sulphides at 54m depth including probable nickel sulphide at Diomedes near Paris (microscope image)



0.05 mm

Example of nickel target at Diomedes





Mapping likely Archaean ironstones, ultramafics & fuchsite quartzites at Uno/Morgans due west of recent government dating of Archaean rocks at Iron Knob on the distant horizon

# **Investigator**: One of the Best Silver Opportunities in Australia with significant upside for new silver, copper-gold discoveries



#### IVR is moving Paris forward towards development

Early results show positive economic attributes (grade, size, mining, processing, location)

#### Pathway to production

- Aiming to convert the Paris Inferred Mineral Resource to Indicated Mineral Resource status & complete a feasibility study by mid-2018
- Requiring an estimated \$3.5m expenditure year 1 and \$4.5m in year 2

Infill drilling (7,000m) to commence at Paris around mid September

#### Significant surrounding discovery potential to move IVR to the next echelon

Silver targets to build on the Paris project

**ASX: IVR** 

- Breakthrough copper gold & nickel targets with Tier 1/2 potential
- Emerging nickel & other metal potential in large areas of potential Archaean geology

Drilling of the Nankivel copper-gold target near Paris has commenced

# Investigator & Paris: A silver start to an Olympic goal



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