



## Investigator Resources Limited

Date: 23<sup>rd</sup> May 2012

### **Drilling recommences at the Paris silver prospect and regional graphite potential identified on Eyre Peninsula**

- **Next phase of exploration and resource definition drilling commences at the high-grade Paris silver discovery including the drilling of new feeder targets with an aggregate of 2km untested strike length**
- **Positive outcomes from initial petrological study at Paris showing silver is dominantly primary sulphide mineralisation; encouraging for potential recoveries**
- **Regional graphite potential is being assessed with widespread hits recorded in historic drill data including a substantial shallow intersection of 15 metres @ 12% total graphitic carbon**

Metals explorer Investigator Resources Limited (ASX Code: **IVR**) today announced drilling has recommenced at the Paris silver prospect on the northern Eyre Peninsula, South Australia. The drilling will follow up on prior high-grade silver intersections and also test the considerable new target potential within the prospect.

A new interpretation of prior drill results has further enhanced the target potential of the advancing Paris silver prospect. The potential depth extensions to the Central Feeder were previously recognised with consistent intersections of up to 14m @ 907g/t Ag achieved by prior shallow drilling along 500m strike tested thus far.

New feeder targets with an aggregate of another two kilometres of untested strike length are now identified within the Paris prospect.

The potential was also enhanced by positive outcomes from a new petrological study at Paris. This firstly showed the dominant silver mineral in the observed samples for both the shallow manto and deeper feeder mineralisation is acanthite ( $\text{Ag}_2\text{S}$ ), a common silver sulphide in mined deposits. Secondly, the clay overburden to the shallow silver mineralisation is primary alteration with little weathering to complicate metallurgical characteristics.

The company also announced a preliminary review of the graphite potential within its regional tenements has identified several areas with good potential where graphitic schists were intersected in past drilling by other explorers. This included a 1993 intersection of 15 metres @ 11.98% total graphitic carbon (TGC) in coarse graphite schist from 26m depth to bottom of a vertical hole within Investigator Resources' 100% held Barna Hill tenement.

## Latest interpretation demonstrates enhanced targeting potential at Paris

The Figure 1 plan provides the latest interpretation of the targets and untested potential at the Paris silver prospect.

The flat-lying manto style targets (green) overlie at least three interpreted vertical feeder structures (red). The manto targets remain open to the SE and NW, shown as green arrows (Figure1)

An east-west fault is now interpreted to displace the pattern of mineralisation across the prospect.

The vertical feeder model has been developed from high grade (best of 14m @ 907g/t Ag from 90m) shallow intersections into the Central Feeder Zone over 500 metres strike length (red line). The interpreted feeder intersections have high-grade silver consistent with the manto intersections but with improved gold grades. By analogy with overseas deposits, there is potential for considerable depth extensions to the feeder structures beneath the current intersections.

Another two kilometres strike potential of postulated feeder targets within the Paris prospect are now recognised as shown by the dashed red lines. These also add considerable potential to the prospect.

## Positive petrology outcomes

Petrological examination of 69 samples from the diamond core holes on lines 7 and 8 was undertaken by consultant Dr Doug Mason of Mason Geoscience Pty Ltd. This included laboratory analyses of selected samples with x-ray diffraction and a scanning electron microscope.

The study confirmed the silver mineralisation is associated with extensive and intensive epithermal alteration. It also indicated the strong clay alteration down to about 85 metres below the surface is a primary argillic hydrothermal zone above a deeper sericite (phyllic) alteration zone (Figure 2). The manto-style silver mineralisation is located close to the boundary between the alteration zones.

Silver minerals are now identified in four high-grade intersections on Line 7 (Figure 2), dominantly as 0.1 to 0.2 millimetre grains of the silver sulphide acanthite ( $\text{Ag}_2\text{S}$ ), one of the most common silver minerals in producing mines. Silver also occurs in lesser minerals of jalpaite ( $\text{Ag}_3\text{CuS}_2$ ) and native silver inclusions in pyrite (iron sulphide) with a small amount of silver measured in galena (lead sulphide).

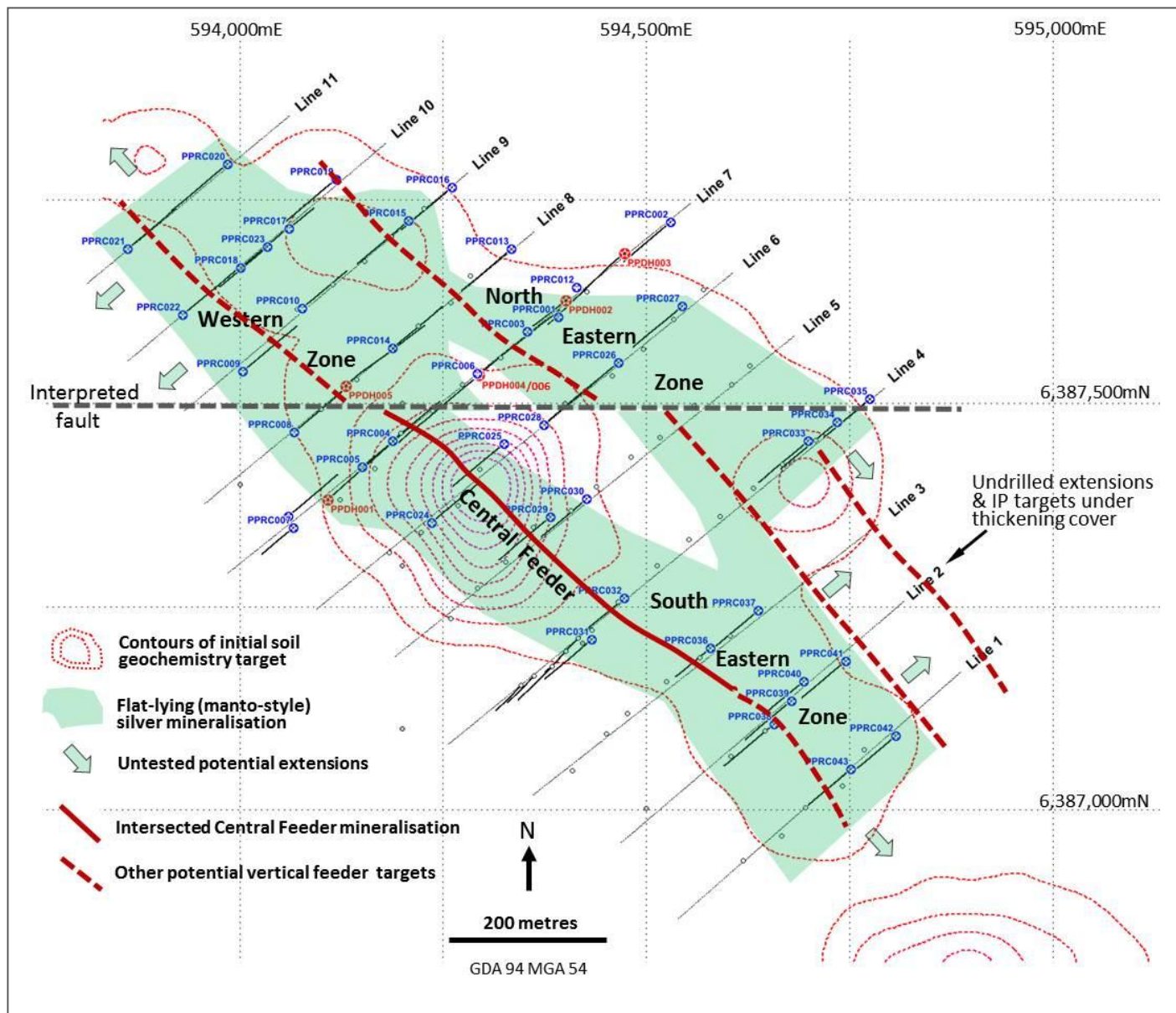
As the acanthite-dominant mineralogy is observed in both the interpreted shallow manto and the deeper feeder mineralisation, the consistency is encouraging for uniform metallurgical characteristics across the target types, although much more metallurgical work needs to be done at Paris.

## Drilling recommences with second rig starting soon

One diamond drill rig has commenced large diameter coring for geological and metallurgical assessment. A total of three large diameter holes will drill the North East manto zone, the northern end of the Central Feeder and the South East manto zone. One aspect particularly being addressed is the possibility of cavities in the manto zones indicated by core loss in hole PPDH002.

Another drill rig will also commence soon to start testing the Central Feeder zone and other feeder targets along with the first rig when it finishes the large diameter holes.

**Figure 1: Paris prospect – Latest Interpretation of targets**  
Plan showing drilling of the contoured soil target and the upgraded target potential



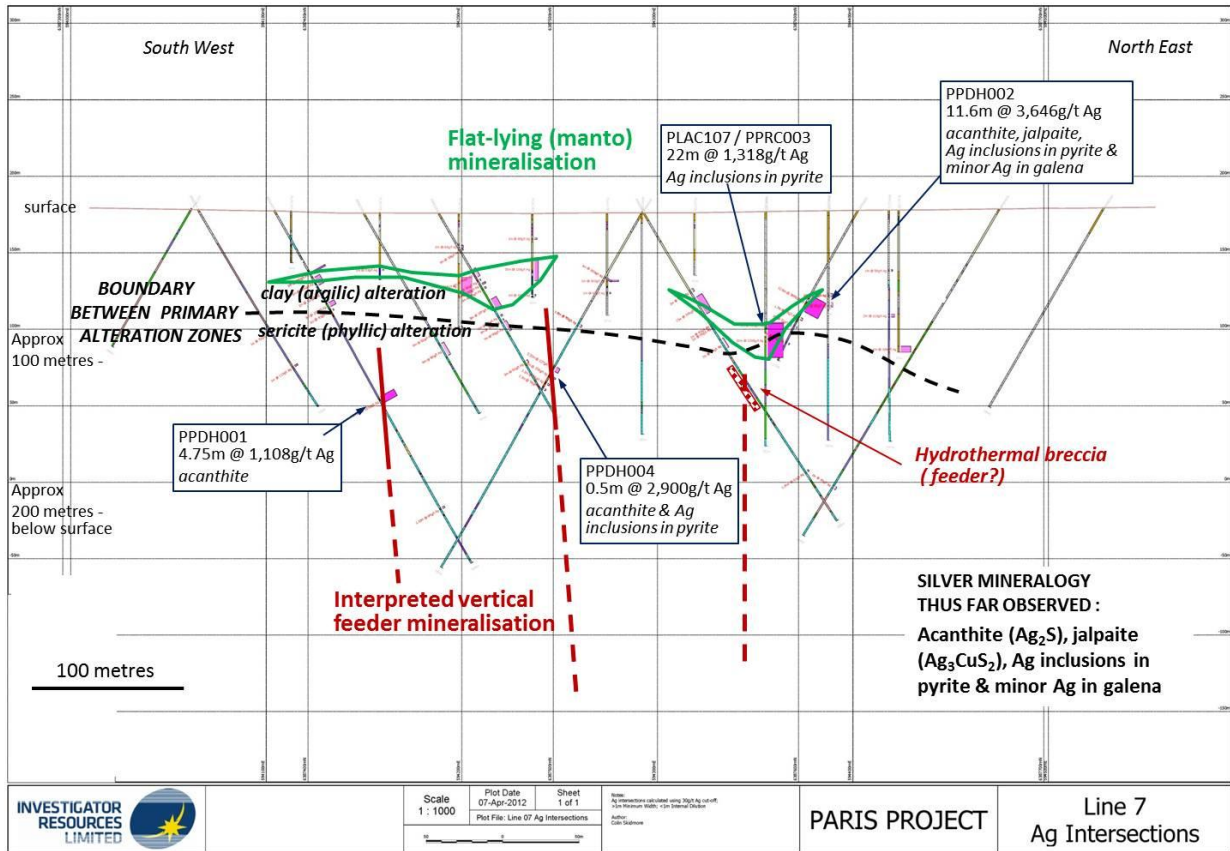
**List of significant intersections**

- (green – interpreted manto; red – interpreted feeder)
- Line 1:** 15m @ 102 g/t Ag; 2.9% Pb and 0.5% Zn (PPRC042 52 – 67m)  
5m @ 190 g/t Ag; 1.01% Pb and 1.03% Zn (PPRC042 63 – 68m)
  - Line 2:** 19m @ 965 g/t Ag; 0.95% Pb and 0.17% Zn (PPRC039 42 – 61m)
  - Line 3:** 10m @ 1.71 g/t Au including 2m @ 6.26 g/t Au (PPR036 43 – 51m)  
4m @ 139 g/t Ag; 0.99% Pb and 0.03% Zn (PPRC036 60 – 64m)
  - Line 4:** 6m @ 596 g/t Ag; 0.20g/t Au; 1.54% Pb and 0.1% Zn (PPRC032 40 – 46m)
  - Line 5:** 8m @ 710 g/t Ag; 0.81g/t Au, 4.04% Pb and 0.53% Zn (PPRC029 90 – 98m)
  - Line 6:** 14m @ 907g/t Ag; 0.07g/t Au; 0.1% Pb and 0.04% Zn (PPRC025 97 – 111m)  
7m @ 1,810 g/t Ag; 1.26% Pb and 0.01% Zn (PPRC026 31 – 38m)  
5m @ 174 g/t Ag; 0.43% Pb and 0.01% Zn (PPRC026 41 – 46m)  
6m @ 211 g/t Ag; 2.08% Pb and 3.46% Zn (PPRC026 115 – 121m)
  - Line 7:** 6m @ 191 g/t Ag; 3.36% Pb and 0.58% Zn (PPDH001 51 -57 m)  
4.75m @ 1,108 g/t Ag; 0.32% Pb and 0.1% Zn (PPDH001 140 – 144.75m)  
0.5m @ 2,900g/t Ag; 0.25g/t Au; 2.52% Pb; 0.69% Zn (PPDH004 129.6 to 130.1m)  
11.6m @ 3,64 g/t Ag; 2.4% Pb and 4.2% Zn (PPDH002 63.5 - 75.1m)  
22m @ 1,318 g/t Ag; 2.03% Pb and 1.36% Zn (PPRC003 73 – 95m)
  - Line 8:** 13m @ 218 g/t Ag; 0.81% Pb and 0.54% Zn (PPDH006 65 -78 m)  
5m @ 2,395 g/t Ag; 0.31% Pb and 0.68% Zn (PPRC008 101 – 106m)
  - Line 9:** 16m @ 331 g/t Ag; 1.14% Pb and 0.34% Zn (PPRC009 70 - 86m)
  - Line 10:** 10m @ 432 g/t Ag; 0.61% Pb and 1.01% Zn (PPRC023 49 - 59m)



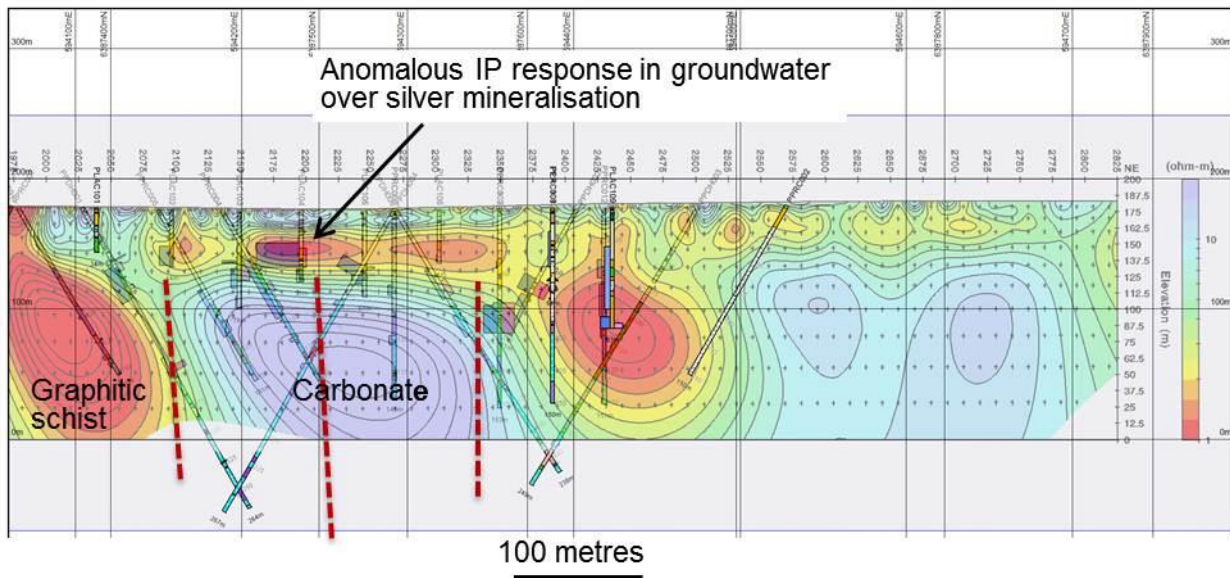
**Figure 2: Positive Petrology Outcomes at Paris**

Section for Line 7 showing drilling and new petrological results indicating consistent primary silver mineralogy for the manto & feeder mineralisation; plus soft clay overburden due to primary alteration above the shallow mineralisation



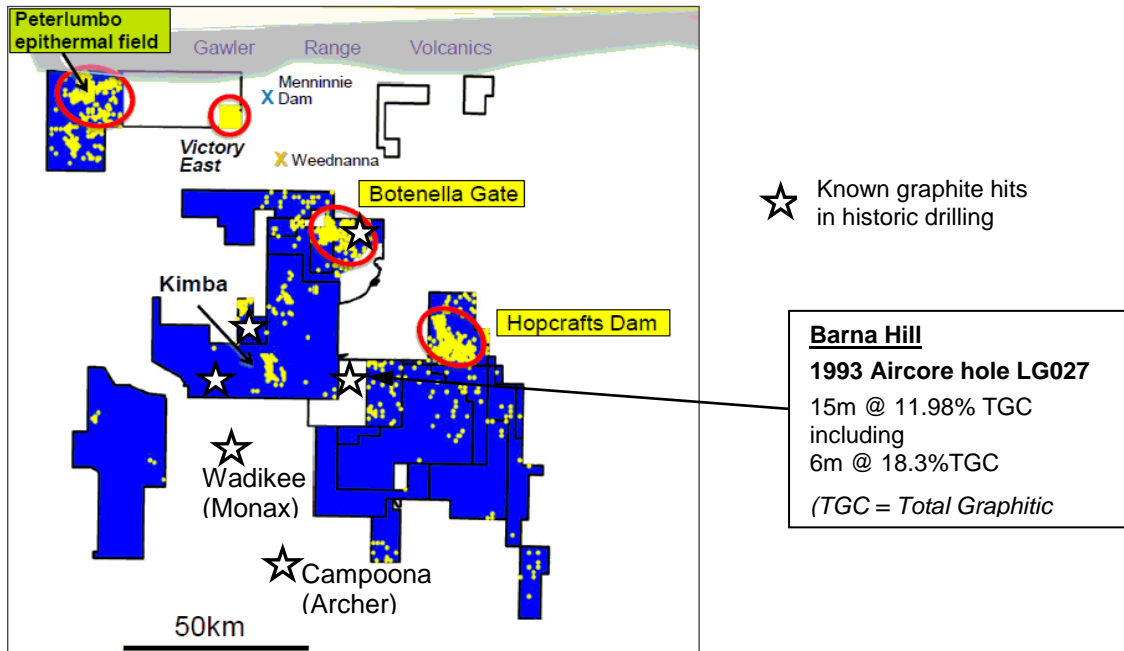
**Figure 3: Graphite at Paris**

IP resistivity section for Line 7 showing IP response above the silver mineralisation and in the western graphitic unit interpreted as the Cook Gap Schist that offers local and regional graphite potential within IVR and joint venture tenements



**Figure 4: Regional graphite potential**

Known graphite intersections in historic drilling (stars) and silver-in-soil anomalies (yellow) and silver gold +/- copper target areas in Investigator's solely-held & joint venture tenements on Eyre Peninsula

**Graphite at Paris and regional potential**

Graphitic schist has been confirmed in the western wallrocks to the Paris Prospect (Figure 3). This is likely to be the Cook Gap Schist that is the geological unit being explored for graphite by other explorers in the region.

The new petrology indicates graphite played a role in depositing the high silver grades at Paris. This provides another lead to prospective host rocks for new silver targets in the Peterlumbo field.

An initial review of historic drilling data shows the Cook Gap Schist is present widely across Investigator's Eyre Peninsula ground and this is being assessed for the regional graphite potential.

Early attention will be applied to a significant intersection recorded in coarse graphite schist in Investigator's 100% held tenement at Barna Hill (Figure 4). Vertical aircore hole LG027 achieved an intersection of 15m @ 11.98% TGC in a regional scout traverse drilled in 1993. The intersection was open at the bottom of the 41m deep hole and included a 2m interval of 24.9% TGC.

**Peterlumbo Tenement and Joint Venture**

The Paris prospect is the most advanced of five priority targets within the Peterlumbo epithermal field, located about 400km northwest of Adelaide. The Peterlumbo field is situated at the west end of a 583 sq km tenement area secured under EL4228.

The tenement area is subject to the Peterlumbo Joint Venture between Investigator Resources (holding 75% and Manager) and Mega Hindmarsh Pty Ltd (25% interest).

Investigator Resources is managing the joint venture that made the greenfields Paris silver discovery during 2011. The mineralisation is considered to be Olympic Dam-aged and opens up new target potential for epithermal and IOCG-style deposits in the southern Gawler Craton.

**Investigator Resources overview**

Investigator Resources Limited (ASX code: IVR) is a metals explorer with a focus on the opportunities for greenfields copper, gold and silver discovery offered by the resurging minerals frontier in South Australia's southern Gawler Craton.

Investigator Resources has developed and applied a consistent and innovative strategy that defined multiple quality targets, including the recent Paris silver discovery within the newly-recognised Peterlumbo metal field, giving IVR first mover opportunities across the province.

**For further information contact:**

Mr John Anderson  
Managing Director  
Investigator Resources Limited  
Phone: 07 3870 0357

Dianne Monopoli  
Principal Consultant, Three Plus Pty Ltd  
Phone: 07 3503 5700  
Mobile: 0417 708 093

**Competent Person Statement:** The information in this report that relates to Exploration Results is based on information compiled by John Anderson (BSc(Hons)Geol) who is a member of the Australasian Institute of Mining and Metallurgy and is bound by and follows the Institute's codes and recommended practices. Mr Anderson is a full-time employee of Investigator Resources Limited. He has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Anderson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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