# ASX/Media Release

INVESTIGATOR RESOURCES LIMITED

20th October 2015

## ON-GOING SILVER, COPPER & NICKEL ADVANCES IN THE PARIS DISTRICT

- Review of Paris geological framework completed ahead of re-estimation of silver resource
- Assays and petrology for recent Nankivel drilling enhance porphyry and skarn copper potential in broader Paris mineral system
- Further drill hole petrology at nearby Diomedes confirms widespread ultramafic nickel sulphide potential
- Heritage survey underway to gain drill access for balance of new priority copper targets with majority of nickel target area already cleared
- Application for large tenements with additional copper and nickel potential based on breakthrough ideas and government research.

The Paris district within Investigator Resources' 100% held Peterlumbo tenement EL5368 continues to advance as a prime terrain for undiscovered greenfields metal deposits. The Paris silver deposit provides not only a foundation resource but is also a lead-in for a spectrum of discovery opportunities in copper, gold and nickel along with further silver lead zinc deposits.

### Paris Resource Review

A re-estimation of the maiden Inferred Mineral Resource of 20Moz silver established in 2013 for the Paris Project is well underway. A full geological review is now completed confirming the epithermal character and the extent of the breccia host. A revised resource estimation is anticipated in the December quarter.

### Results of Recent Drilling Upgrades Copper Targets

The Paris deposit is situated at the margin of a highly prospective mineral system centred on the 2 x 4km Nankivel intrusive complex (Figures 1 & 2). Widely-spaced drilling in August (19 Reverse Circulation (RC) percussion holes totalling 3,515m; PPRC345 to 363) primarily investigated the skarn copper potential of the accessible western rim of the complex. All the assay and petrology results are now at hand and assessed. Although no immediate discovery intersections were made, intersections of zinc lead, anomalous copper and multiphase intrusives in the Nankivel West area enhance the copper skarn and porphyry potential of the adjacent Nankivel Hill area. The new drilling shows metal and mineral zoning along the Paris structural axis with increasing copper potential towards three large magnetic skarn targets and underlying porphyry potential at Nankivel Hill. As this area has been previously inaccessible to modern drilling, a heritage survey is currently underway to gain drill access to these targets.

For drilling details, see Figures 1 & 2, Tables B-F, Figures 5-9 and Appendix 1.

Broad intervals of anomalous zinc, lead or copper were intersected at Nankivel West, Helen West and Peterlumbo Hill (Figure 1) with the best intersections all coming from PPRC360 of 12m @ 1.28 % Zn, 3m @ 0.81% Pb and 9m @ 0.07% Cu.

Petrology and intersections in the Nankivel West area show significant alteration and metal where the Nankivel Complex is intersected by the prospective structure extending from Paris. Zoning along the structure from silver at Paris to zinc lead copper at Nankivel West plus the multiphase intrusives intersected at Nankivel West provide further support for copper skarns and porphyry targets under the high sulphidation silica alunite topaz alteration in the Nankivel Hill area (Figure 1). Here, three high-priority skarn targets are already evident as magnetic anomalies larger in area than the previously reported skarn copper gold silver intersections at Helen that demonstrated the skarn copper potential around the Nankivel Rim (Figures 1 & 2). A full review of the drillhole geology and metal zoning is being undertaken to seek vectors to porphyry targets warranting further exploration definition. Drilling of the established skarn targets is proposed for early in 2016 after the heritage survey is finalised.

Another area with porphyry potential is also now confirmed by the intersections of altered intrusives in a magnetically-interpreted intrusive complex adjacent to Peterlumbo Hill. This extended potential along the Paris structure was supported by the zinc intersection in strongly altered clay in hole PPRC359. Further testing along the structure at the Hector copper soil anomaly was inconclusive as the one hole failed to penetrate the loose alluvium cover. The Peterlumbo Hill and Hector areas are largely heritage cleared.

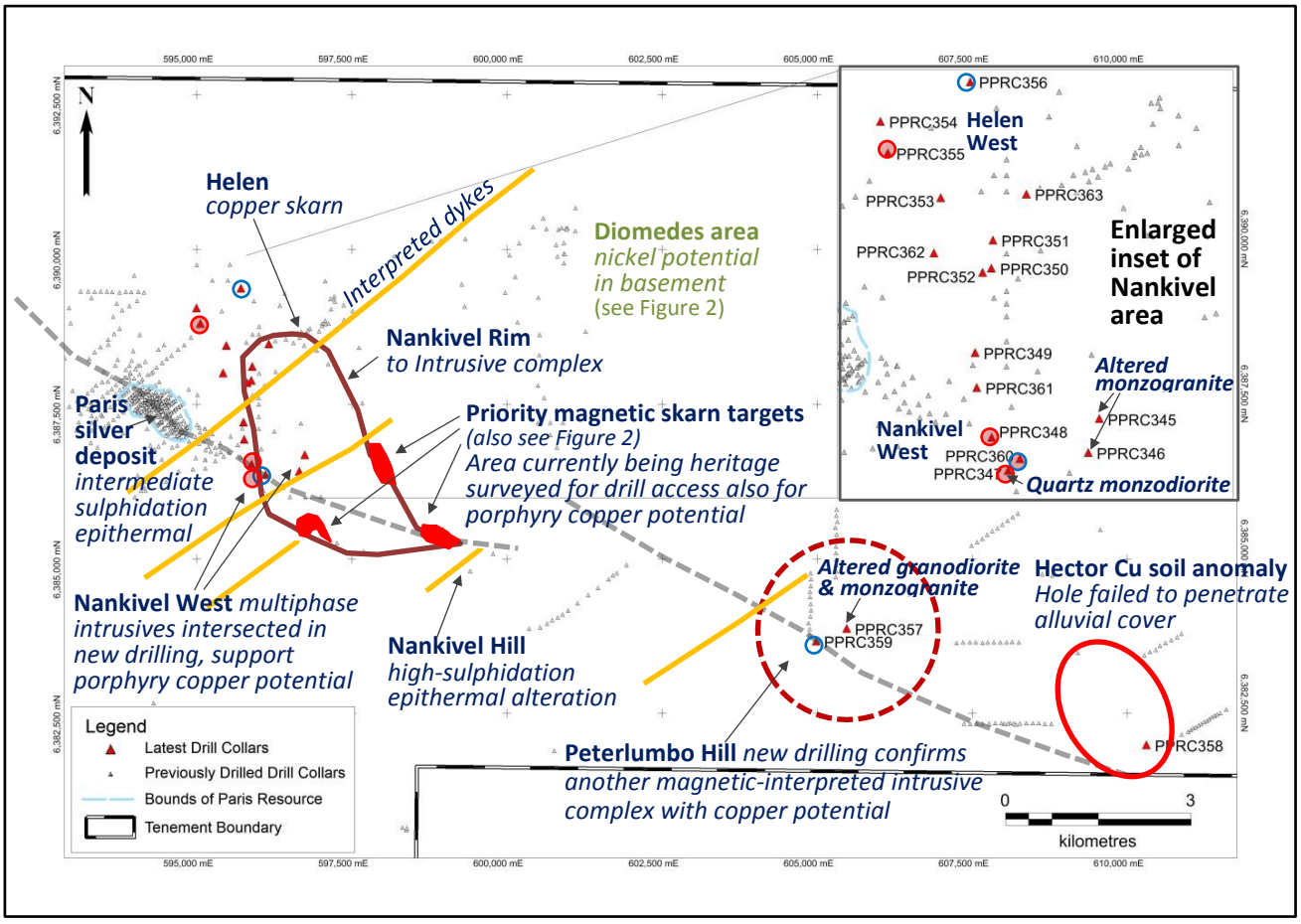



**Figure 1: Plan of the Paris-Nankivel-Peterlumbo Hill area** showing the new drillhole collars and key results towards understanding the highly prospective minerals system extending along the interpreted northwest-southeast Paris structural axis shown as the dashed grey line.

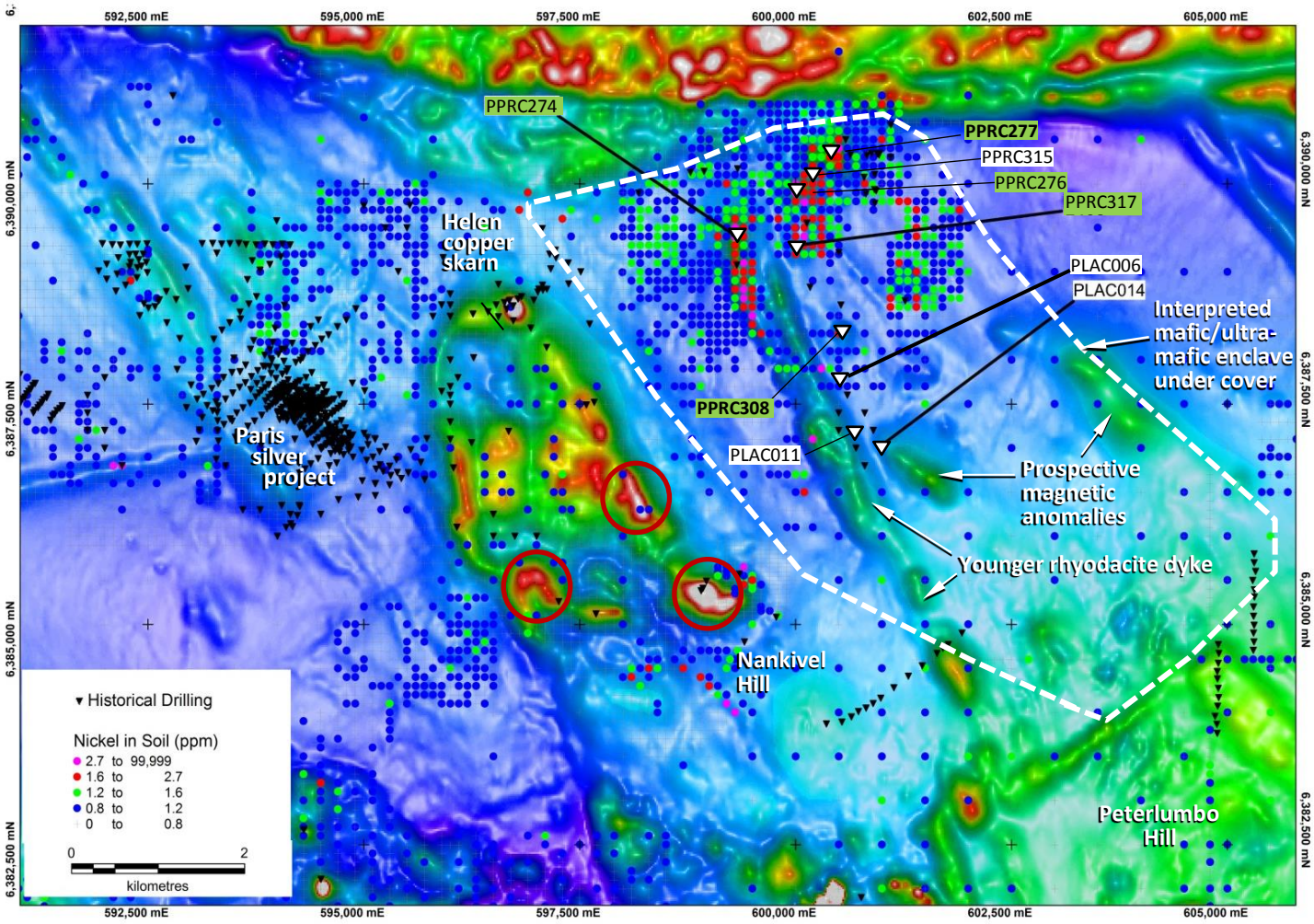



**Figure 2: Plan of the Paris-Nankivel-Diomedes area** showing nickel soil anomalies and pre-2015 drill collars on an RTP TMI magnetic image.

A. Holes previously reported with nickel or chromium intersections >0.1% are shown as larger white triangles. Holes with petrology describing prospective basement ultramafic geology are labelled in green. Holes PPRC277 & 308 with fresh trace sulphides including probable nickel sulphides have bold hole numbers.

B. The priority magnetic targets for skarn copper are circled in red.

## Nickel Potential Enhanced

The basement geology also offers significant metal potential. A previously reported review of 2011 and 2014 scout drilling in the Diomedes area recognised nickel intersections in nine widespread holes with initial petrology identifying an ultramafic host in one hole PPRC274 (Investigator ASX release: 7 August 2015; Figure 2). Additional consultant petrology was recently undertaken for other nickel anomalous holes and this expanded the extent of confirmed basement ultramafics (e.g. Photo 1) to another four holes in a 2 x 1km area. Traces of probable nickel sulphide (pentlandite) were recognised (Photo 2) with iron sulphide (pyrrhotite) and copper sulphide (chalcopyrite) in two holes PPRC277 & 308. Although some secondary nickel enrichment is usually expected at shallow depths, the presence of sulphides at 54m depth is very encouraging for nickel sulphide targets at Diomedes. Intersections in older drilling (with no petrological material available) and magnetics indicate the area of the prospective ultramafic enclave to be at least 4 x 8km.

In the northern half of the enclave, soil geochemistry has delineated about 5 strike kilometres of nickel anomalies in which the majority of the scout drilling has intersected ultramafics and elevated nickel.

Shallow scout drilling of around 30m depth in 2011 (PLAC holes – Figure 2) also intersected nickel showing the southern half of the enclave is prospective under thin cover.

The pyrrhotite and magnetic associations with the nickel mineralisation in the northern part of the enclave warrant particular investigation of two moderate-intensity magnetic anomalies in the covered south (Figure 2). The assessment is continuing with consideration being given to identifying soil anomalous and magnetic areas within the enclave for electromagnetic (EM) surveying and drilling in 2016.

**Photo 1:** Microscope image (transmitted cross polarised light) showing a metamorphosed ultramafic rock from Diomedes. A preserved olivine grain (green centre) is fractured and replaced by magnetite (dark cracks) and is surrounded by pyroxene and tremolite with an aligned fabric. Drillhole PPRC276, 54-55m; Interval assayed 1,100ppm Ni

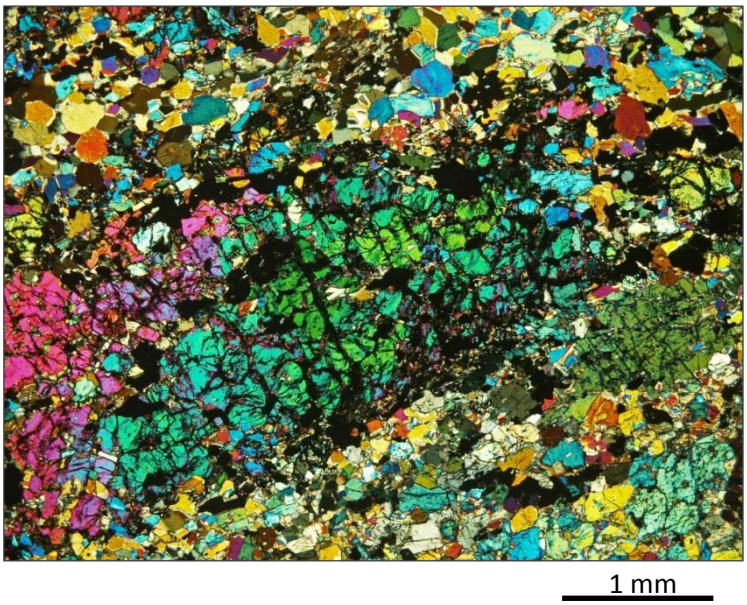
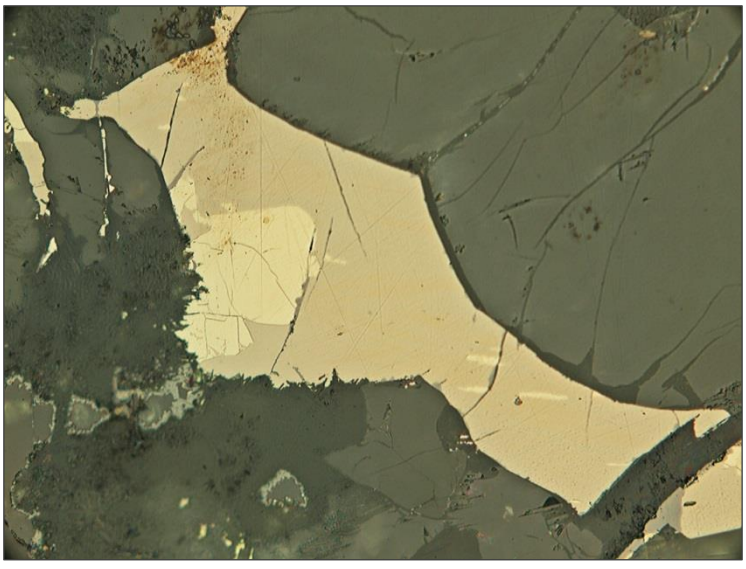



**Photo 2:** A more enlarged microscope image (reflected plane polarised light) of the same sample above showing fresh sulphides at shallow depth at Diomedes. The larger flesh coloured grain is iron sulphide pyrrhotite and the smaller brighter grains are likely to be nickel sulphide pentlandite. These sulphides are positive indicators of nickel -prospective ultramafics. The brighter coloured sulphides are nestled between the coarser mineral grains shown above but here these are dull grey due to poorer light reflection than the metallic sulphides.

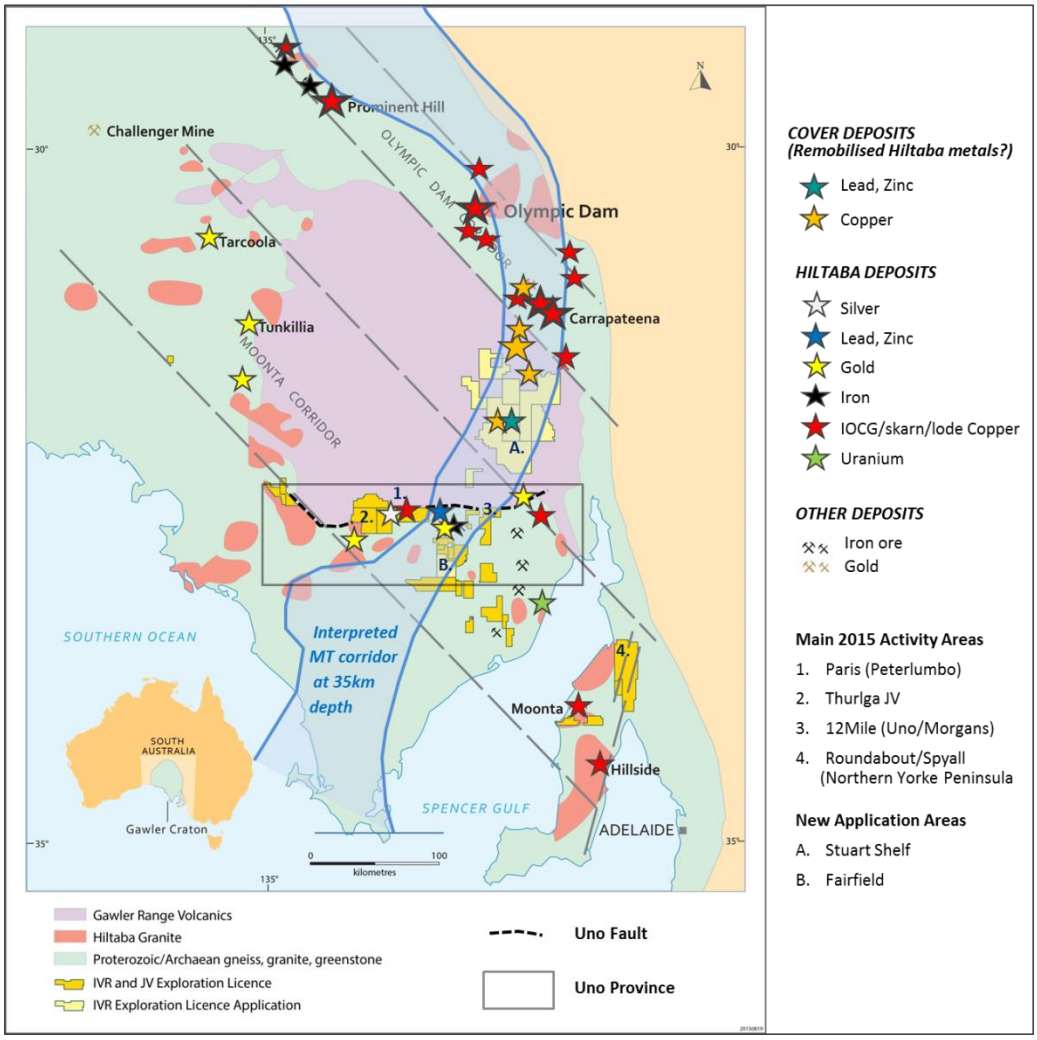


## New Tenement Applications

Investigator has recently applied for 4,273km$^2$ of new exploration tenements in the southern Gawler Craton as a result of the Company's recognition of a spectrum of Hiltaba (Olympic Dam) aged deposit styles in the Uno Province and a government research breakthrough with mapping of a possible geophysical corridor between Olympic Dam and the Uno Province.

The Company closely monitors external research that can be converted into exploration opportunities. Investigator reacted rapidly to a recent breakthrough in magnetotelluric (MT) geophysical research by the University of Adelaide and the State Government (Thiel & Heinson, 26th IUGG General Assembly, Prague 27 June 2015) that may provide the awaited step change method of mapping buried mineral provinces across the country. Early roll out of this new MT technology in South Australia has indicated a deep geophysical corridor connecting the iconic Olympic Dam Iron Oxide Copper Gold (IOCG) province with the Uno Province (Figure 3). This not only supports our focus on the Uno Province, it also elevates the prospectivity of other segments of the corridor. Accordingly, Investigator has recently applied for substantial ground showing refreshed IOCG copper and new nickel potential under the new leading edge concepts.

**Figure 3:** Summary plan of the southern Gawler Craton showing geology, regional concepts, key deposits and Investigator tenements including new applications

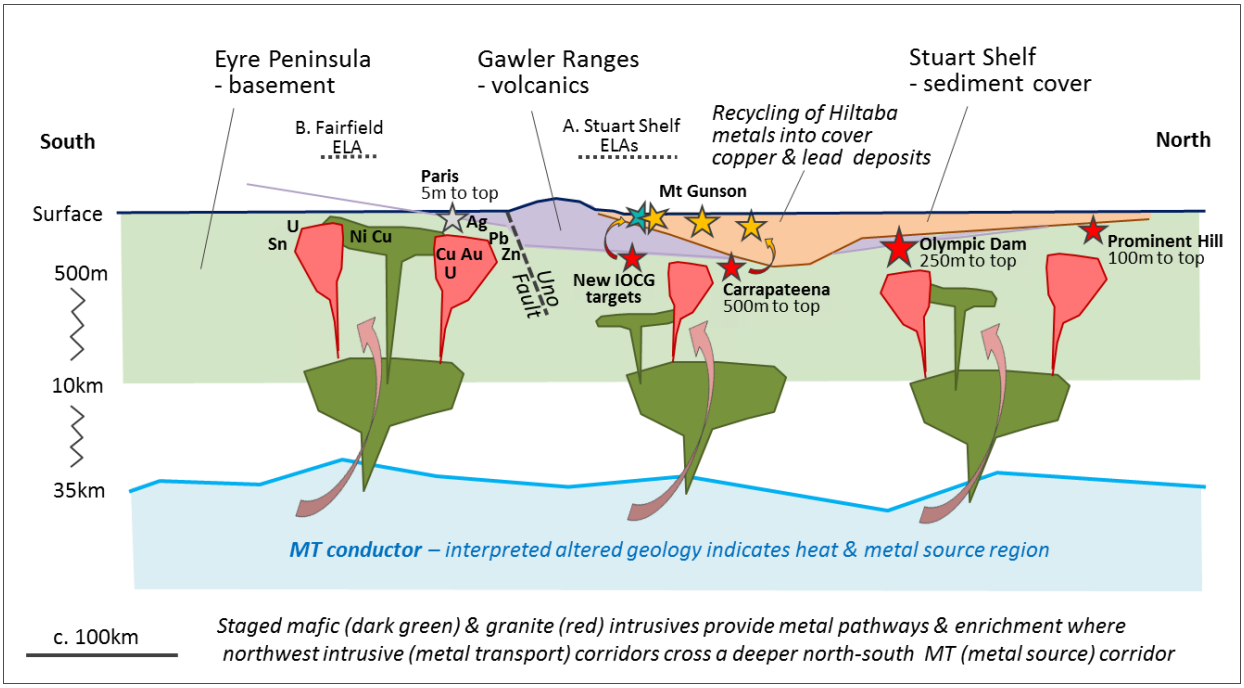



The majority of the new applications are on the Stuart Shelf, long explored for base metal deposits like Mount Gunson in the sedimentary cover. The new MT corridor corresponds with the trail of cover deposits suggesting a fundamental metal source at about 35km depth that has continually mineralised the upper

crust over geological time (Figure 4). Although the cover deposits are prospective in their own right, the potential of the MT corridor re-invigorates the IOCG prospectivity of the base of the Gawler Range Volcanics. The classic IOCG deposits of Olympic Dam and Prominent Hill are now known to have formed at this level, the same geological position for Paris and the mooted porphyry targets in the Uno Province. A review is underway to assess the abundant cover drilling to project the likely depths to the IOCG target level and prioritise any geophysical anomalies in the area.

Another tenement application named Fairfield was made near Kimba with the conceptual opportunity for nickel in the abundant Hiltaba mafic intrusives now being recognised across the Uno Province. A gravity high, magnetic low in the Fairfield area may represent a mafic body located in the new MT corridor. This is a separate nickel opportunity to the Diomedes-style basement ultramafics of likely Archaean age. The proximity of probable Archaean basement at 12 Mile within the Morgans tenement (Figure 3) may provide precursor nickel metal to the younger Hiltaba mafic intrusives. The Fairfield area is covered and will require geophysical work to advance the targets after grant.

**Figure 4:** Schematic section of the MT corridor showing targeting concepts




## Prioritisation of Opportunities

Investigator's focus on the southern Gawler Craton is developing a spectrum of deposit styles and discovery opportunities (Table A) as described above. Investigator is maintaining a strong geological team to assess and develop these while leveraging the Company's datasets and drill samples as a collaborative research platform.

The first priority is the review of the Paris silver resource which is well advanced towards release before the end of the calendar year.

Completion of the Nankivel heritage survey and assessment of porphyry vectors are in progress for drilling of must-do copper skarn and possible porphyry copper targets in early 2016. The proximity of Thurlga (under Joint Venture with Adelaide Resources Ltd) to Paris and the spectrum of targets including larger Imiter-style silver and nickel targets at both Thurlga and near Paris require parallel assessment towards

2016 drilling. The Diomedes nickel enclave may quickly achieve high-priority drill targets in 2016. Assessment of the regional nickel potential will be a longer on-going program.

A preliminary desktop assessment of the Stuart Shelf IOCG opportunity is proceeding ahead of tenement grant.

**Table A:** Summary of discovery opportunities within Investigator's tenements & applications in the southern Gawler Craton

| *Terrane* | *Metals* | *Prospect* | *Interpreted Geological Setting* | *Potential* | *Current Action* (* Reported on in this announcement) |
|---|---|---|---|---|---|
| *Hiltaba (Olympic Dam age) igneous event with a spectrum of deposit styles* | **Silver (Lead Zinc)** | **Paris silver deposit** | **Epithermal:** Intermediate-sulphidation at base of volcanic pile | **Stand-alone silver project:** Maiden 2013 Inferred Resource (20Moz) | **Resource review * in progress** |
| | | **Nankivel mineral system** including Paris on margin | **Large epithermal field** at thinly covered base of Gawler Range Volcanics | **Paris/Imiter-style** silver; skarn lead-zinc | **Mapping & magnetic modelling** for Imiter-style silver targets* including in Thurlga |
| | **Copper Gold** | **Large Nankivel mineral system** including Paris on periphery | **Central subvolcanic multi-phase intrusive complex** **Extensive lithocap** including high-sulphid-ation epithermal alteration indicative of proximal porphyry environment | **Skarn copper** & company-maker **porphyry copper** deposits | **Obtaining vectors to skarn & porphyry targets*** from extensive scout drill dataset **Heritage surveys * underway** for drill access to upgraded copper targets |
| | | **Uno Provincei** including Paris-Nankivel field | **Re-activated caldera margin** with multiple epithermal subvolcanic fields | **Thurlga** - extension of Paris-Nankivel field **Wilcherry** – Ajax diatreme **Morgans** – 12 Mile low-sulphidation veins & multiphase intrusives | Finalising **Thurlga soil targets** **Relogging** Ajax scout holes Interpreting recent 12 Mile **magnetic survey** |
| | | **Geophysical (MT) Corridor** | **Breakthrough connection of Olympic Dam IOCG corridor with Uno Province**; Supported by remob-ilised copper & lead mineralisation in overlying cover | **Stuart Shelf: Revital-ised IOCG targets** above metal-source corridor & beneath trail of cover deposits | **Large tenement application*** |
| | **Nickel** | **Regional** | **Multiple Hiltaba mafic intrusives:** newly recognised | Voisey's Bay/Nova-style nickel | **Reassessing regional Ni soil & magnetic/ gravity data** including Thurlga area **Fairfield tenement application*** in MT corridor |
| *Basement* | | **Diomedes** | **Basement ultramafics** with trace nickel sulphide in shallow scout holes | **Archaean nickel deposits** in large Diomedes target area near Paris | **Target delineation:*** Assessing past drilling, magnetic anomalies & EM targeting tactics |
| | | **Regional** | **Other Archaean ultramafic enclaves** in the Eyre Peninsula basement | Kalgoorlie-aged nickel systems | **Reassessing regional Ni soil & magnetic/ gravity data** including 12 Mile area |

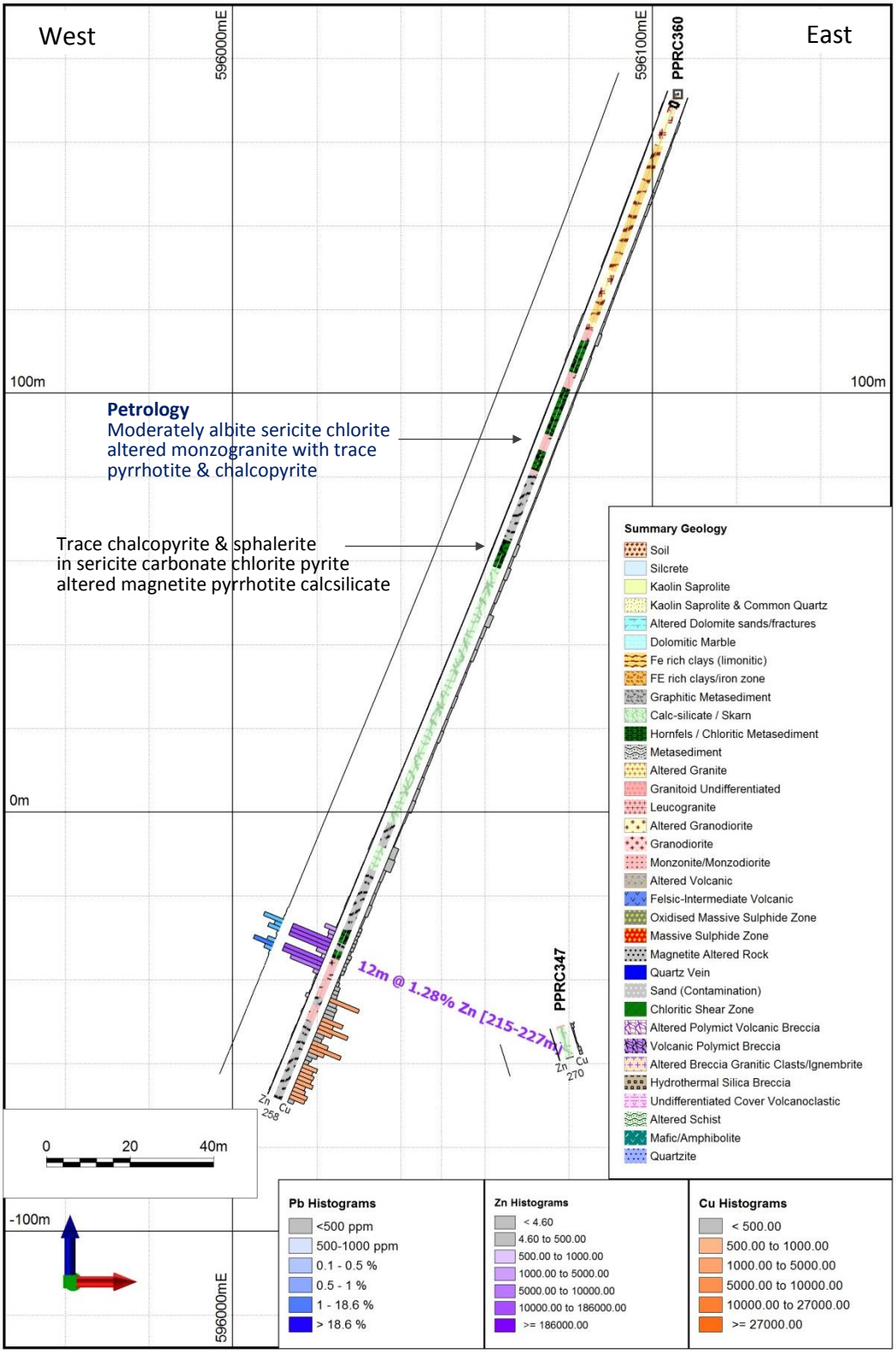



**Figure 5: Drillhole profile PPRC360** - Nankivel West

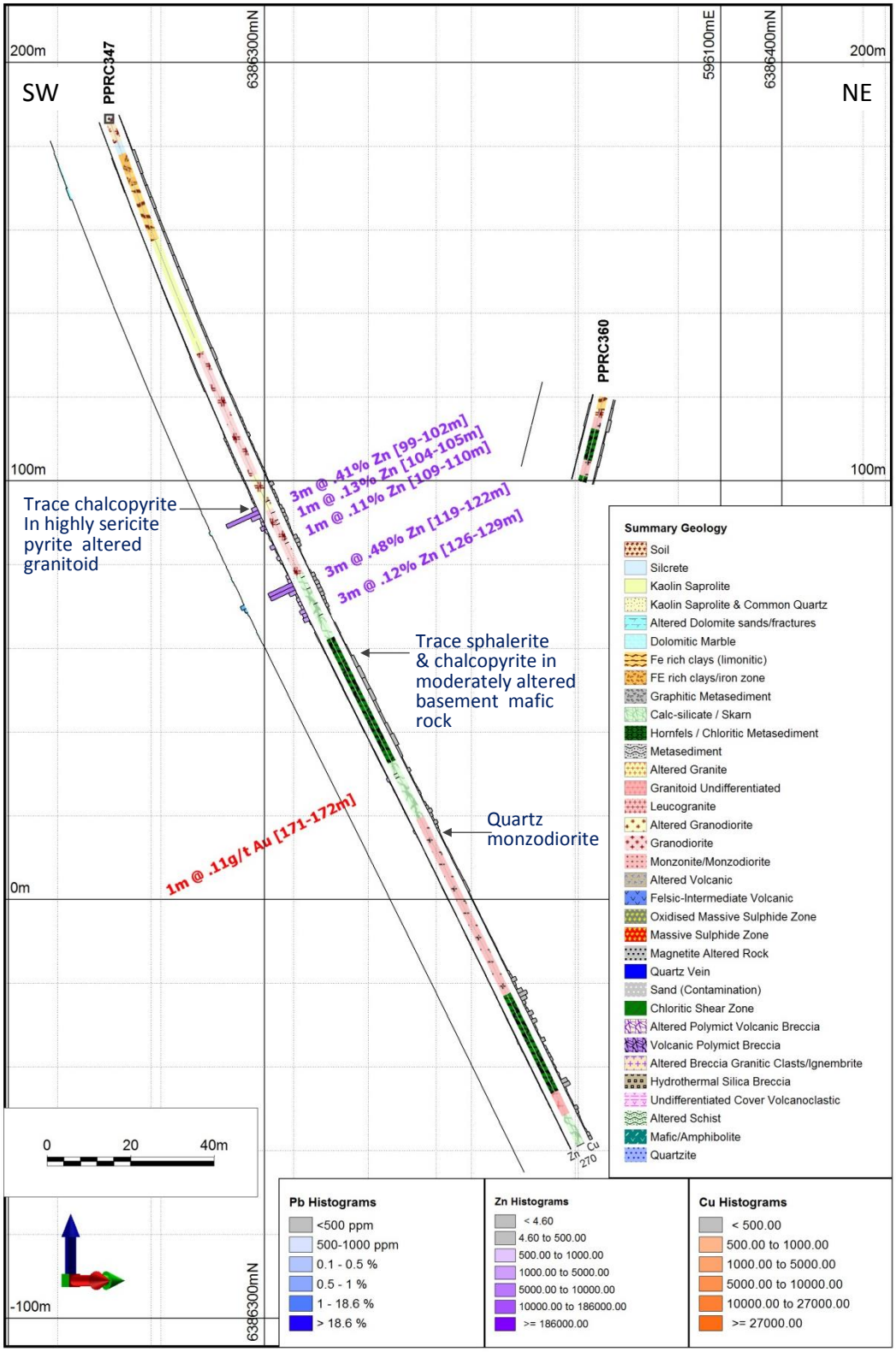



**Figure 6: Drillhole profile PPRC347** - Nankivel West

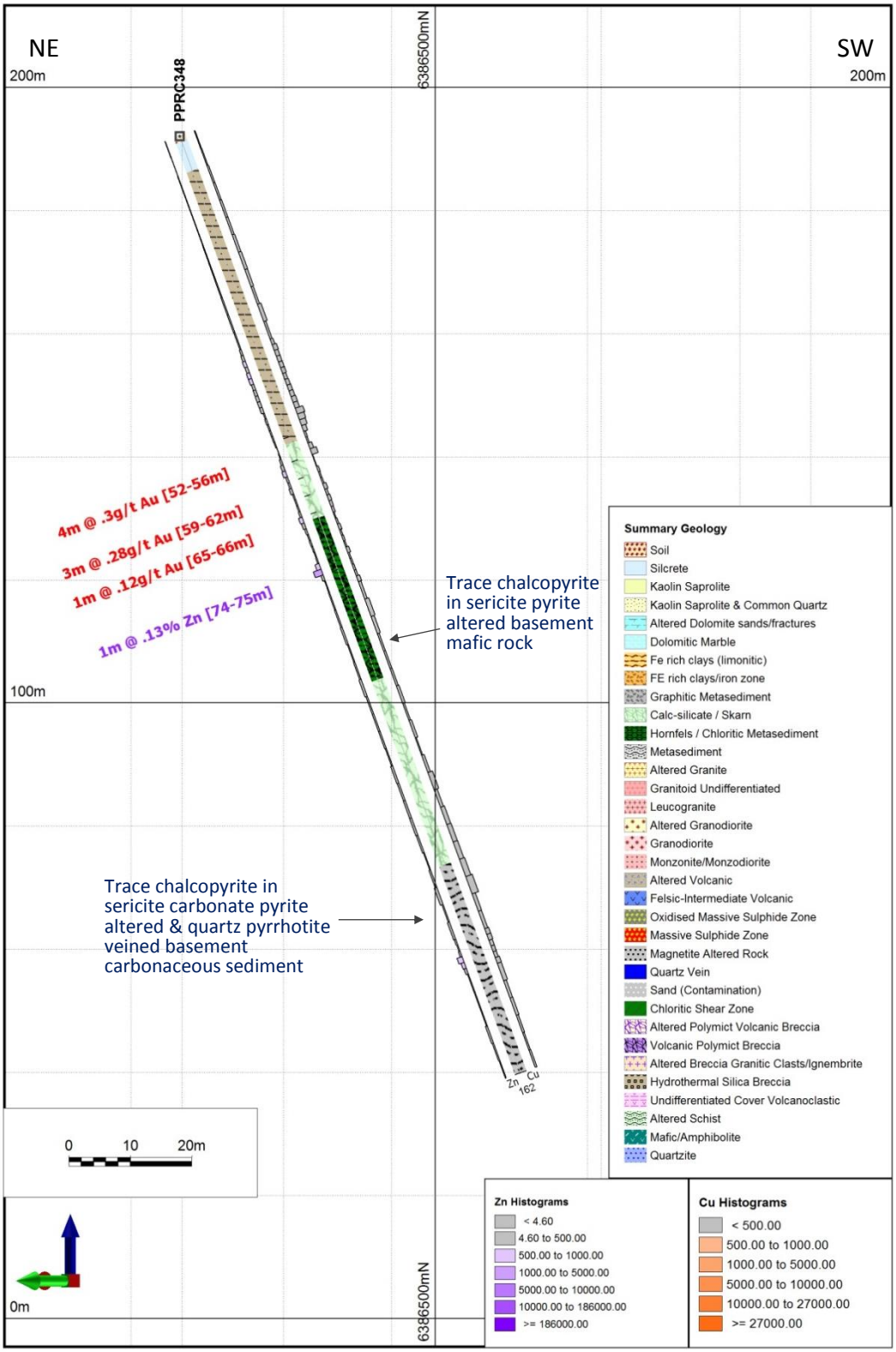



**Figure 7: Drillhole profile PPRC348** - Nankivel West

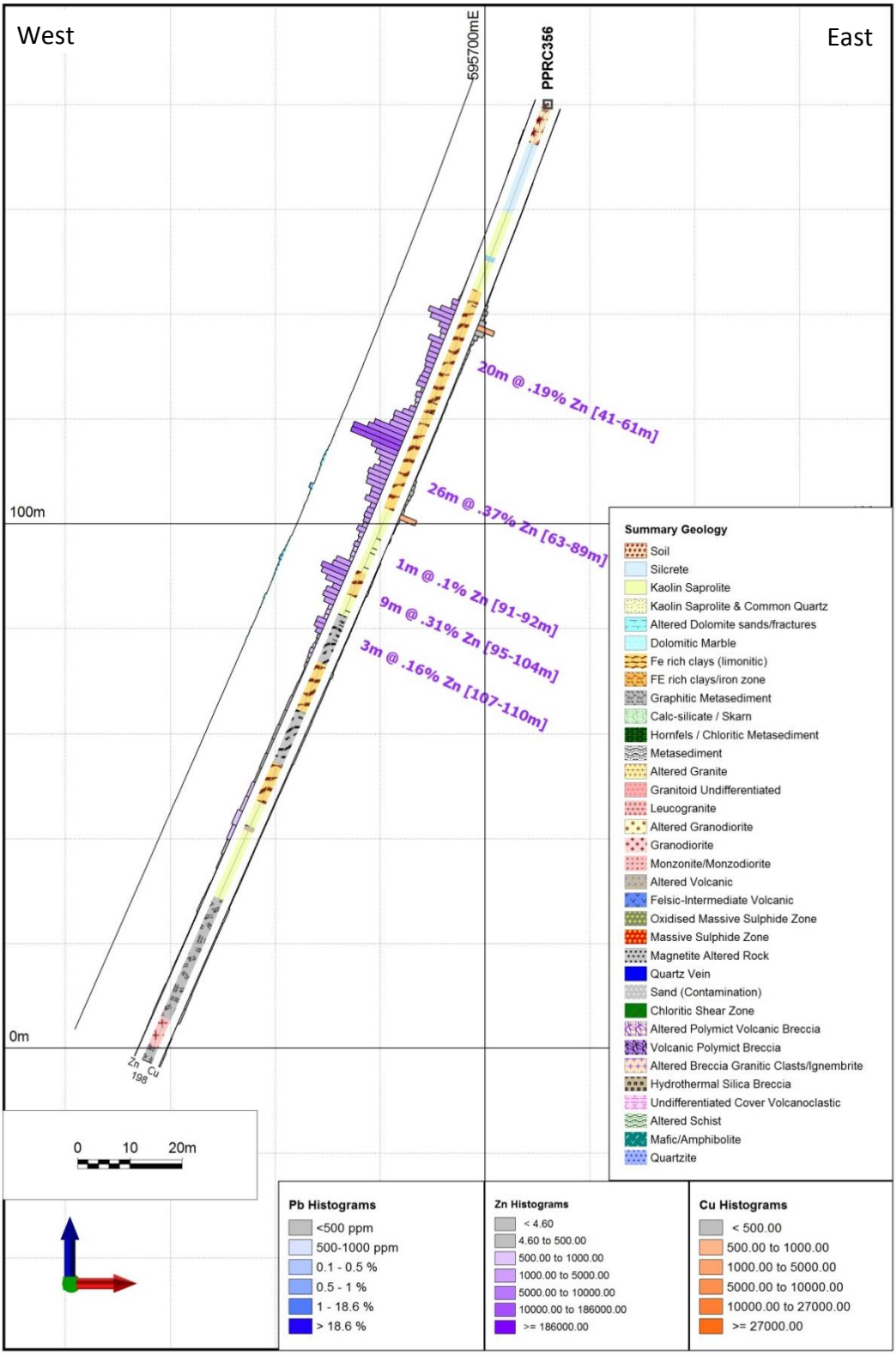



**Figure 8: Drillhole profile PPRC356** – Helen West

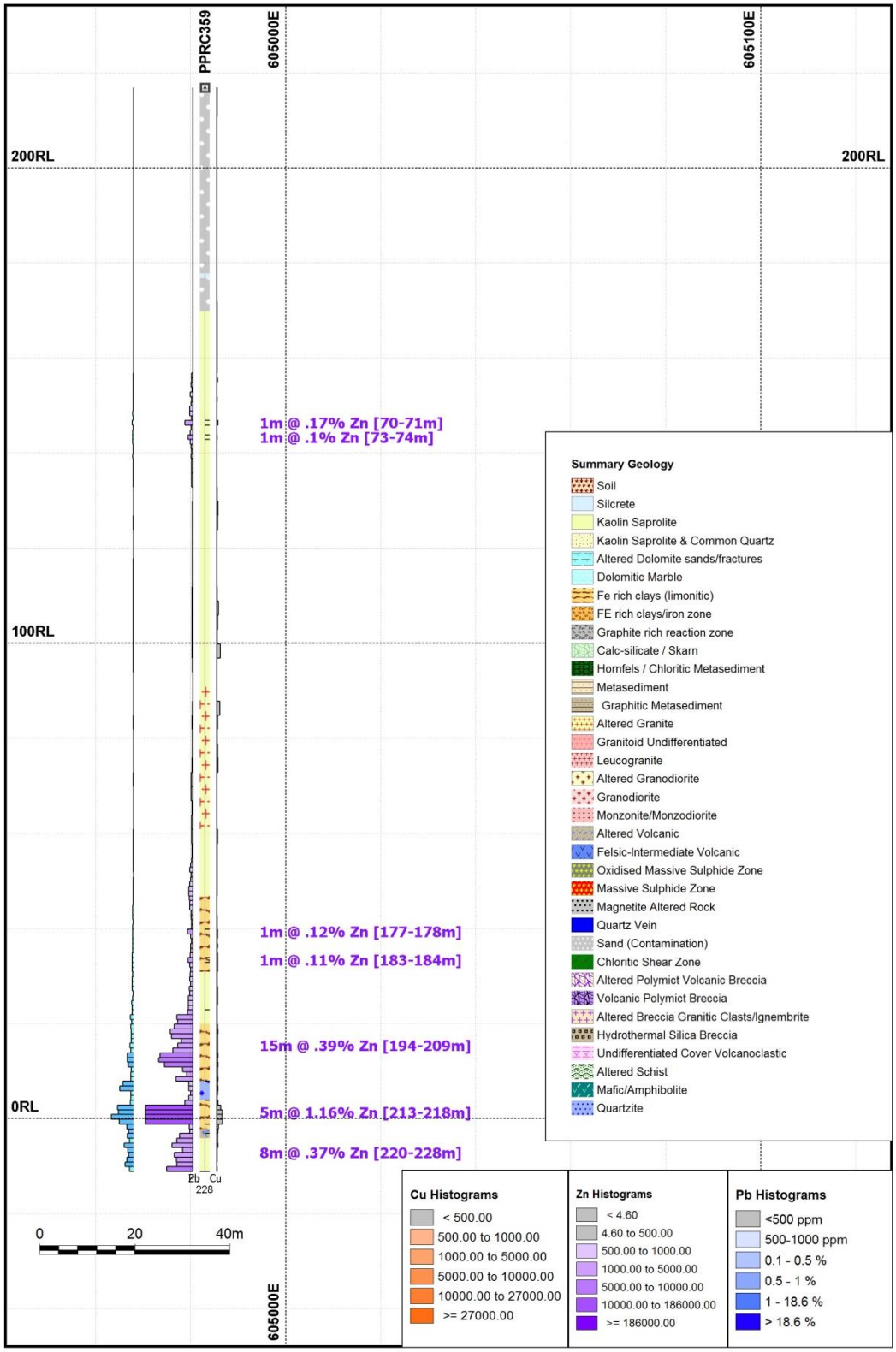



**Figure 9: Drillhole profile PPRC359** – Peterlumbo Hill

**Table B:** Summary of Zinc intersections from recent drilling in the Peterlumbo Tenement (Cut-off >0.1% Zn)

| Hole_ID | From (m) | To (m) | Thickness (m) | Zinc (%) |
|---|---|---|---|---|
| PPRC347 | 99 | 102 | 3 | 0.41 |
| | 104 | 105 | 1 | 0.13 |
| | 109 | 110 | 1 | 0.11 |
| | 119 | 122 | 3 | 0.48 |
| | 126 | 129 | 3 | 0.12 |
| PPRC348 | 74 | 75 | 1 | 0.13 |
| PPRC353 | 132 | 133 | 1 | 0.20 |
| PPRC356 | 41 | 61 | 20 | 0.19 |
| | 63 | 89 | 26 | 0.37 |
| | 91 | 92 | 1 | 0.10 |
| | 95 | 104 | 9 | 0.31 |
| | 107 | 110 | 3 | 0.16 |
| PPRC357 | 108 | 109 | 1 | 0.11 |
| | 116 | 117 | 1 | 0.72 |
| PPRC359 | 70 | 71 | 1 | 0.17 |
| | 73 | 74 | 1 | 0.10 |
| | 177 | 178 | 1 | 0.12 |
| | 183 | 184 | 1 | 0.11 |
| | 194 | 209 | 15 | 0.39 |
| | 213 | 218 | 5 | 1.16 |
| | 220 | 228 | 8 | 0.37 |
| PPRC360 | 215 | 227 | 12 | 1.28 |
| PPRC363 | 172 | 173 | 1 | 0.18 |

All the assays are of one-metre un-composite samples. With the reporting of the assay results, no top-cuts were applied, but the following lower cut-offs were applied; 0.1% zinc, 0.1g/t gold, 0.1% copper and 0.1% lead. There was 1m maximum of internal dilution.

Refer to Appendix 1 for 'Table 1, Peterlumbo Tenement Reverse Circulating Drilling Results, Reporting September 2015 - JORC 2012', information relating to the compliance of the 2012 edition of the JORC Code. This includes Section 1 - sampling Techniques and Data and Section 2 - Reporting of Exploration Results.

**Table C:** Summary of Gold intersections from the recent drilling in the Peterlumbo Tenement (Cut-off >0.1g/t Au)

| Hole_ID | From (m) | To (m) | Thickness (m) | Gold (g/t) |
|---|---|---|---|---|
| PPRC347 | 171 | 172 | 1 | 0.11 |
| PPRC348 | 52 | 56 | 4 | 0.30 |
| | 59 | 62 | 3 | 0.28 |
| | 65 | 66 | 1 | 0.12 |

**Table D:** Summary of Copper intersections from recent drilling in the Peterlumbo Tenement (Cut-off >0.05% Cu)

| Hole_ID | From (m) | To (m) | Thickness (m) | Copper (%) |
|---|---|---|---|---|
| PPRC356 | 44 | 45 | 1 | 0.07 |
| | 83 | 84 | 1 | 0.07 |
| PPRC360 | 231 | 232 | 1 | 0.15 |
| | 236 | 240 | 4 | 0.10 |
| | 242 | 245 | 3 | 0.10 |
| | 248 | 257 | 9 | 0.07 |

**Table E:** Summary of Lead intersections from recent drilling in the Peterlumbo Tenement (Cut-off >0.1% Pb)

| Hole_ID | From (m) | To (m) | Thickness (m) | Lead (%) |
|---|---|---|---|---|
| PPRC347 | 119 | 121 | 2 | 0.17 |
| PPRC356 | 84 | 85 | 1 | 0.14 |
| | 99 | 100 | 1 | 0.11 |
| PPRC357 | 116 | 117 | 1 | 0.21 |
| PPRC359 | 203 | 206 | 3 | 0.13 |
| | 209 | 211 | 2 | 0.25 |
| | 214 | 227 | 13 | 0.20 |
| PPRC360 | 218 | 221 | 3 | 0.63 |
| | 223 | 226 | 3 | 0.81 |

**Table F:** Drilled collars for included holes

| Hole ID | Area | Easting | Northing | RL dtm (m) | Total Depth (m) | DIP | TAZ |
|---|---|---|---|---|---|---|---|
| **PPRC345** | Nankivel | 596,738 | 6,386,681 | 182 | 180 | -90 | - |
| **PPRC346** | Nankivel | 596,649 | 6,386,410 | 184 | 192 | -90 | - |
| **PPRC347** | Nankivel | 596,013 | 6,386,267 | 186 | 270 | -70 | 35 |
| **PPRC348** | Nankivel | 595,880 | 6,386,531 | 189 | 162 | -70 | 215 |
| **PPRC349** | Nankivel | 595,749 | 6,387,208 | 183 | 180 | -70 | 90 |
| **PPRC350** | Nankivel | 595,880 | 6,387,879 | 173 | 192 | -70 | 270 |
| **PPRC351** | Nankivel | 595,891 | 6,388,104 | 171 | 198 | -70 | 270 |
| **PPRC352** | Nankivel | 595,810 | 6,387,860 | 173 | 222 | -70 | 270 |
| **PPRC353** | Nankivel | 595,478 | 6,388,447 | 171 | 180 | -70 | 215 |
| **PPRC354** | Nankivel | 594,993 | 6,389,055 | 166 | 168 | -70 | 90 |
| **PPRC355** | Nankivel | 595,056 | 6,388,803 | 167 | 180 | -70 | 270 |
| **PPRC356** | Nankivel | 595,711 | 6,389,372 | 164 | 198 | -70 | 270 |
| **PPRC357** | Peterlumbo Hill | 605,473 | 6,383,878 | 204 | 174 | -90 | - |
| **PPRC358** | Hector | 610,308 | 6,381,996 | 171 | 72 | -90 | - |
| **PPRC359** | Peterlumbo Hill | 604,987 | 6,383,663 | 217 | 228 | -90 | - |
| **PPRC360** | Nankivel | 596,105 | 6,386,360 | 184 | 258 | -70 | 270 |
| **PPRC361** | Nankivel | 595,763 | 6,386,930 | 188 | 102 | -90 | - |
| **PPRC362** | Nankivel | 595,461 | 6,388,017 | 175 | 120 | -90 | - |
| **PPRC363** | Nankivel | 596,133 | 6,388,510 | 171 | 240 | -70 | 320 |

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**Investigator Resources overview**

Investigator Resources Limited (ASX code: IVR) is a metals explorer with a focus on the opportunities for greenfields silver-lead and copper-gold discoveries offered by the resurging minerals frontier of the southern Gawler Craton on South Australia's northern Eyre and Yorke Peninsulas.

The Company announced its maiden Inferred Mineral Resource for its 2011 Paris silver discovery of 5.9Mt at 110g/t silver and 0.6% lead, containing 20Moz silver and 38kt lead credit (at a 30g/t silver cut-off) in October 2013.

Investigator Resources Limited has developed and applied a consistent and innovative strategy that defined multiple quality targets, including the Paris silver discovery and other epithermal fields within the Uno Province, giving Investigator first mover opportunities.

The Paris mineralisation is considered to have formed at the same time as the Olympic Dam iron-oxide, copper, gold ("IOCG") deposit and opens up new target potential for epithermal, porphyry, skarn and IOCG-style deposits in the southern Gawler Craton. This was demonstrated by the Helen copper, gold and silver intersection in late 2014. The conceptual potential for porphyry copper deposits near Paris remains valid as our 2015 geological and research work has advanced our understanding. Nickel potential is also now recognised in the associated mafic intrusives and in likely Archaean mafic rocks in the older basement geology.

**Competent Persons Statement**

The information in this report 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 report that relates to Mineral Resources Estimates at the Paris Silver Project is extracted from the report entitled "Maiden Resource Estimate for Paris Silver Project, South Australia" dated 15 October 2013 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.

# APPENDIX 1

## TABLE 1: PETERLUMBO TENEMENT, REVERSE-CIRCULATING DRILLING RESULT REPORTING SEPTEMBER 2015 - JORC 2012

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Sampling techniques*** | • *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.*<br>• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>• *Aspects of the determination of mineralisation that are Material to the Public Report.*<br>• *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'RC drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.* | • Reverse-circulation ("RC") drilling was undertaken with collection of drill cuttings on one-meter intervals.<br>• RC sampling was initially undertaken on 3m composited intervals for first-pass geochemical analysis; however 1m un-composited samples were retained for future follow-up analysis over anomalous zones. Composites were spear sampled with a nominal 2kg sample size taken.<br>• Follow up 1m sample interval analysis of anomalous zones was undertaken by riffle splitting of meter intervals to a nominal 2kg sample which was dispatched for geochemical analysis. Where clay and water issues reduced sample quality and ability to split, an interval was spear sampled with a similar volume sample dispatched for geochemical analysis.<br>• Standards and duplicates were not routinely inserted in the initial 3m composite results program. Any resampling at 1m intervals routinely incorporates appropriate standards (1 standard every 25 samples) and duplicates (1 duplicate every 20 samples).<br>• Each 1m drilled interval is qualitatively annotated with a sample quality based on weight and moisture content. |
| ***Drilling techniques*** | • *Drill type (e.g. core, RC, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).* | • Bullion Drilling were contracted to undertake RC drilling.<br>• Drilling was completed using a face sampling 5 3/8inch (13.652cm) percussion hammer.<br>• RC drilling was vertical and inclined (refer Table F for hole collar details). Hole azimuth and dip recordings were undertaken utilising a reflex downhole camera. |
| ***Drill sample*** | • *Method of recording and assessing core and chip sample recoveries* | • A visual estimate of recovery and moisture content over individual 1m |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***recovery*** | *and results assessed.*<br>• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>• *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.* | drilled estimates was recorded.<br>• Initial RC drilling only so no assessment of sample representivity or sample bias available.<br>• Each 1m drilled interval is qualitatively annotated with a sample quality based on weight and moisture content. |
| ***Logging*** | • *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*<br>• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.*<br>• *The total length and percentage of the relevant intersections logged.* | • Drill cuttings are qualitatively logged and photographed.<br>• Qualitative logging includes lithology, colour, mineralogy, description, marker horizons, weathering, texture, alteration and mineralisation.<br>• All holes were logged and sampled over their entire interval.<br>• A small selection of check petrological samples were collected from narrow intervals of percussion chips by project geologists; then thin and polished sections prepared and described by Mason Geoscience Pty Ltd using an independent, qualified consultant experienced in the geology & mineralisation styles. |
| ***Sub-sampling techniques and sample preparation*** | • *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>*If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.*<br>*For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>*Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>• *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.*<br>• *Whether sample sizes are appropriate to the grain size of the material being sampled.* | • See sampling section above for a description of sampling and sub-sampling techniques.<br>• Sample sizes are considered appropriate for the expected grainsize of mineralisation.<br>• No duplicates were submitted with the first round of 3m composites submitted to the laboratory. 1m infill sampling had regular duplicate samples taken with no obvious bias noted.<br>• Sub-sampling techniques are undertaken in-line with standard operating practices in order to ensure no bias associated with sub-sampling. Spear sampling is assigned a lower confidence rating than split sampling in database records.<br>• The nature, quality and appropriateness of the sampling technique is considered adequate for the type of mineralisation and confidence level being attributed to this initial reconnaissance drilling program. |
| ***Quality of assay data and laboratory tests*** | • *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*<br>• *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors* | • A certified and accredited global laboratory (ALS Laboratories) was used for all assays.<br>• Samples were analysed using MEMS61 with 25g prepared sample total digest with perchloric, nitric, hydrofluoric and hydrochloric acids and analysed by ICP-AES and ICP-MS for 48 elements including silver, copper, lead and zinc. Some selected holes had additional |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *applied and their derivation, etc.*<br>• *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.* | analysis for gold using method AA26 50g fire assay with AA finish.<br>• Internal certified laboratory QAQC is undertaken by ALS Laboratories.<br>• No QAQC procedures are undertaken on the initial 3m composite sampling reported in this report. However, duplicates and certified standards are inserted within the sampling sequences for subsequent 1m analysis at 1 duplicate per 20 samples and 1 standard per 25 samples. Standards are randomly inserted from a selection of calibrated samples and include a blank and high range sample. |
| ***Verification of sampling and assaying*** | • *The verification of significant intersections by either independent or alternative company personnel.*<br>*The use of twinned holes.*<br>*Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>• *Discuss any adjustment to assay data.* | • Primary data is captured initially on paper then uploaded into an in-house referential and integrated database system designed and managed by Investigator Resources Limited ("IVR"). All assay data is cross-validated using MicroMine drill hole validation checks including interval integrity checks.<br>• Laboratory assay data is not adjusted aside from assigning over range results when appropriate, replacing "<" with "-", and converting all results released as % to ppm. |
| ***Location of data points*** | • *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*<br>• *Specification of the grid system used.*<br>• *Quality and adequacy of topographic control.* | ***Collar co-ordinate surveys***<br>• All coordinates are recorded in GDA 94 MGA Zone 53.<br>• Surveys have been undertaken by IVR staff using a Trimble Pro XRT Differential GPS with Omnistar HP processing with an accuracy of ±10cm.<br>• Topographic control uses a high resolution DTM generated by AeroMetrex 10cm survey (2012) and cross-validated using the Omnistar HP DGPS.<br>***Down hole surveys***<br>• Down hole surveys were conducted on all inclined holes using a reflex multi-shot downhole camera. |
| ***Data spacing and distribution*** | • *Data spacing for reporting of Exploration Results.*<br>• *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* | • Initial reconnaissance RC drilling.<br>• Holes have been selected based on geological, geophysical and geochemical information and are selected targeted holes. Hole spacing's within this program are variable and the table of drill collar locations should be referred to accompanying this form. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | • *Whether sample compositing has been applied.* | • See drilling section above regarding composite sampling. |
| ***Orientation of data in relation to geological structure*** | • *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*<br>• *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.* | • Initial reconnaissance/scout drilling only. |
| ***Sample security*** | • *The measures taken to ensure sample security.* | • Sample intervals are put into individually numbered calico sample bags, which are tied off and then loaded into cable tied poly-weave bags before dispatch in pallet containers to ALS Laboratories for sample preparation. Transport of samples was undertaken by an IVR employee with full IVR custody and control until handover to the accredited laboratory.<br>• Assay pulps and rejects are returned to IVR from contracted laboratories on a regular basis and stored securely at a contracted warehouse with alarm and camera security in a location fenced off from all other operations. |
| ***Audits or reviews*** | • *The results of any audits or reviews of sampling techniques and data.* | • No audits or reviews have been undertaken. |

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Mineral tenement and land tenure status*** | • *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*<br>• *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.* | • All results accompanying this Table 1, are derived from within EL5368 that was granted to Sunthe Uranium Pty Ltd a wholly owned subsidiary of Investigator Resources Limited ("IVR").<br>• IVR manages EL5368 (Peterlumbo tenement) and holds a 100% interest.<br>• EL5368 is located on Crown Land covered by several pastoral leases.<br>• An ILUA has been signed with the Gawler Range Native Title Group and the Peterlumbo tenement has been 'Cultural and Heritage' cleared for exploration activities.<br>• There is no registered Conservation or National Parks on EL5368.<br>• An Exploration PEPR for the entirety of EL5368 has been approved by DSD (Department for State Development), formally DMITRE. |
| ***Exploration done by other parties*** | • *Acknowledgment and appraisal of exploration by other parties.* | • There has been limited exploration work on the tenement, by other parties.<br>• The majority of targets tested within the current program have had no or minimal drill testing and are based upon recent exploration and interpretation work conducted by IVR. |
| ***Geology*** | • *Deposit type, geological setting and style of mineralisation.* | • Drilling is targeting Paris-style silver-lead, skarn style and potential porphyry style mineralisation associated with the Hiltaba/Gawler Range Volcanic Suite. Lithologies intersected in the current program have included Gawler Range volcanoclastics and volcanics, mafic intrusives, Hutchinson Group metasediments and monzonite to granodiorite intrusives. |
| ***Drill hole Information*** | • *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*<br>  ○ *easting and northing of the drill hole collar*<br>  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* | • Drill hole information is recorded within the IVR in-house database with all collar locations listed in the table accompanying this document.<br>• No material information is excluded. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | ○ *dip and azimuth of the hole*<br>○ *down hole length and interception depth*<br>○ *hole length.*<br>• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.* | |
| ***Data aggregation methods*** | • *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*<br>• *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.*<br>• *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | • Aggregated intersections have been calculated separately for silver, lead and zinc using a 0.05% copper cut-off, 0.1g/t gold cut-off and 0.1% lead/zinc cut-off. Minimum intersection widths are 1m and up to 1m of internal dilution are included.<br>• Copper intersections have been calculated using a 500ppm lower cut-off with minimum composited widths of 3m and up to 3m of internal dilution included.<br>• Where 1m sampling has been undertaken then weighted average intersections for elements have been calculated using minimum intersection widths of 1m and up to 1m of internal dilution.<br>• No metal equivalents are reported. |
| ***Relationship between mineralisation widths and intercept lengths*** | • *These relationships are particularly important in the reporting of Exploration Results.*<br>• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').* | • Initial reconnaissance drilling only, thus geometric relationship of mineralisation to vertical drill orientation unknown. |
| ***Diagrams*** | • *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.* | • See attached plans showing drill hole density as well as the tabulated drill hole information data accompanying this document.<br>• Currently there is insufficient data to draw appropriate cross-sections. |
| ***Balanced reporting*** | • *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.* | • See attached table of intersections.<br>• Reported intersections use the criteria detailed in the above section "data aggregation methods". |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Other substantive exploration data*** | • *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.* | • Mineralisation is likely to be near surface and generally hosted by weathered and intensely altered volcanic lithologies where primary textures may be hard to distinguish or are obliterated.<br>• Groundwater if present is generally below 40m depth.<br>• There are a number of drill collars that are historical (non-IVR) within the Peterlumbo tenement.<br>• Multi-element geochemistry assaying (48 elements) is routine for all sampling. Some elemental associations are recognised within certain lithologies within the region and are used as a tool to assist in interpretation of original lithologies where alteration affected the ability to visually determine the lithology.<br>• In mid-Feb'14 a wide-spaced helicopter-borne geophysical VTEM (versatile time domain electromagnetic) survey was conducted for CSIRO. The survey was 172line-km at a mean altitude of 102m above the ground, at an average speed of 80km/hr., over an area of 64km$^2$ over long east-west traverses. The VTEM results can assist with detecting certain types of mineralisation and overburden signatures. Consultant geophysicists have provided preliminary interpretations of part of the data relating to the Peterlumbo tenement.<br>• Partial leach soil sampling was incorporated in targeting of drilling.<br>• Aeromagnetic data (100m flight line spacing) covers the area assessed. Additional detailed (50m spaced flight lines) aeromagnetic data is present over select areas of the tenement.<br>• Limited gravity coverage exists over the area.<br>• Substantial field mapping was incorporated in analysis of targets and in generation of conceptual models. |
| ***Further work*** | • *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*<br>• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | • Subject to Board approval further drilling may be undertaken. |