



3<sup>rd</sup> December 2014

# Magnetic modelling readies new copper gold targets near Paris for December drilling

- Multiple shallow and large targets with copper gold potential detailed by recent airborne magnetic survey
- Follow up to the prior copper gold intersection in the first magnetic target drilled at Helen
- Thirteen holes planned to undertake initial tests of accessible targets before Christmas including further drilling at Helen

Investigator Resources Limited (ASX Code: IVR) is pleased to report positive modelling results from magnetic data, both existing and recently acquired, over parts of the Peterlumbo tenement that contains the Paris silver deposit.

The recent detailed airborne surveying and modelling of magnetic targets arose from the inaugural copper-gold intersection of 9m at 1.14% copper 0.31g/t gold made near Paris with the testing of the first magnetic target at Helen in August this year (IVR ASX release – 18 September 2014).

The magnetite-hosted copper-gold mineralisation and associated silver-copper intersection confirmed the predicted potential for copper-gold associated with the Paris silver-lead mineralisation. Geological affinities now recognised between Paris and Helen are improving our targeting for both silver-lead and copper-gold and prioritisation of the new magnetic targets.

Remodelling of the Helen magnetic target with the latest airborne data confirms two holes tested the very top of a depth-extensive magnetic body that will be further drilled by another two holes to greater depth in the upcoming drilling.

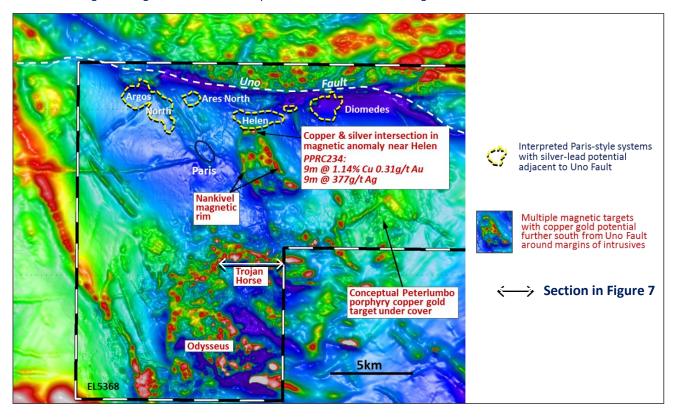
The Helen copper prospect lies on the rim of the interpreted Nankivel granodiorite about 4km east of Paris. The new modelling shows at least eight other magnetic targets, mostly larger in size than the Helen magnetic body, around the 10km Nankivel Rim. Five of these are accessible for drill testing this month with access to the remainder subject to heritage surveys to be sought early in 2015.

At Trojan Horse, another four magnetic targets modelled from existing data and supporting copper soil anomalies are also planned for December drilling. Magnetic targets at Odysseus await heritage surveying.

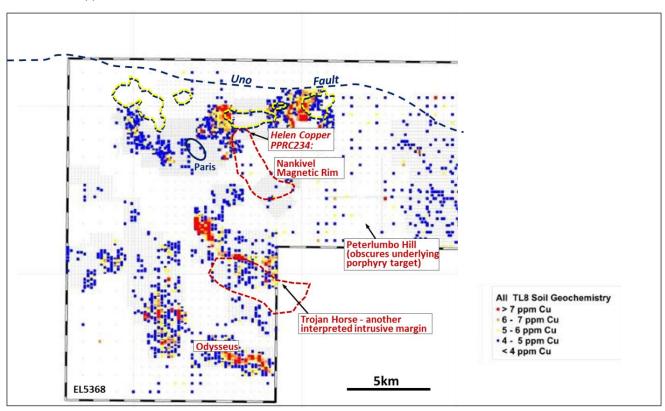
The drilling will commence around 8<sup>th</sup> December and will be undertaken with reverse circulation percussion to a general downhole depth of 250m.

Investigator's Managing Director John Anderson said "As in 2011 with the Paris silver discovery, we are undertaking exciting work right up to Christmas. Investigator achieved another breakthrough in 2014 with the confirmation of associated copper-gold potential. So we are capitalising on that with the airborne surveys, the great modelling results and immediate drill follow-up. The objective of the drilling is to establish how extensive copper mineralisation is in the iron-oxide systems around the Paris field and where Investigator should focus its drilling in 2015."

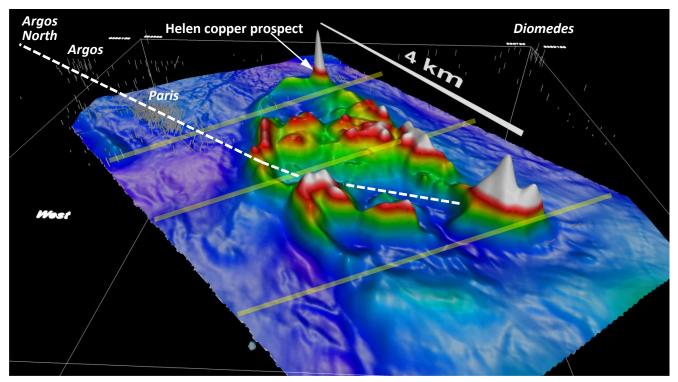
**Figure 1: Magnetic image (TMI-RTP) of Paris area** - showing locations of the Helen copper intersection & multiple untested magnetic targets near the Paris deposit and other silver-lead targets



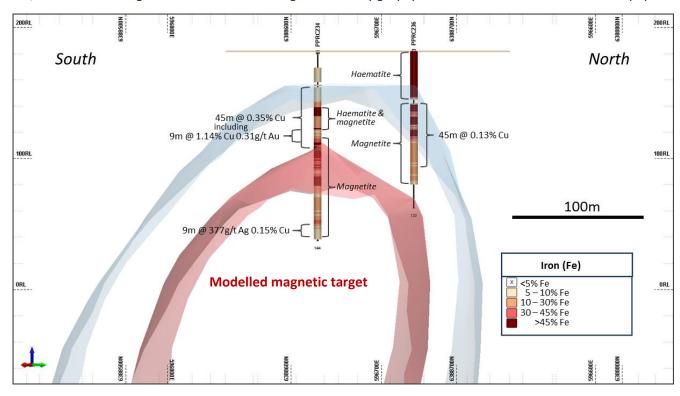
**Figure 2: Copper-in-soil image of Paris area -** showing copper anomalies associated with the Trojan Horse & Odysseus magnetic targets and the need for infill soil sampling at Nankivel Rim & Argos North. Note the poor soil signature over the Helen copper intersection.



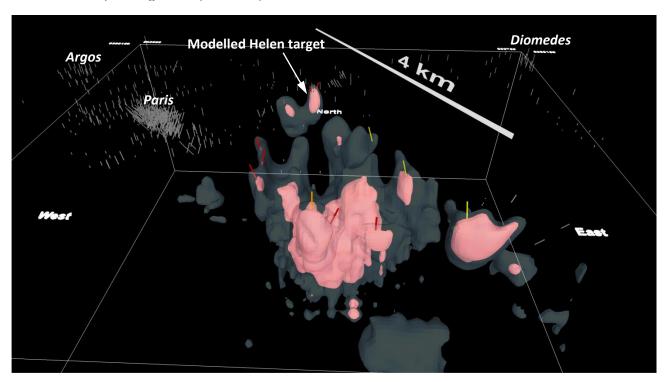
**Figure 3: Nankivel Rim** - Oblique view to north of the magnetic image for the new airborne survey. The magnetic anomalies (shown as red and white peaks), including the Helen prospect, generally rim the Nankivel granodiorite. The Helen intersection shows the copper gold potential of the multiple magnetic targets. Drill traces are shown in grey. Key geological elements of interpreted northeast mineralising dykes (yellow) and extensions of the Paris–Argos North spectral trend (white dash) are indicating connections between the silver-lead and copper-gold targets around the Nankivel granodiorite.



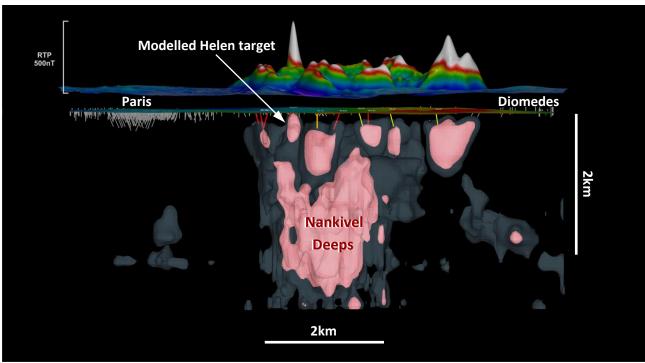
**Figure 4: Helen copper prospect** - Section looking west showing the modelled magnetic target and drillholes with haematite & magnetite distribution consistent with the model. Associated copper-gold & silver intersections are also shown. The two holes tested the very top of a depth-extensive magnetic body that will be further drilled by another two holes to greater depth in the upcoming drilling. Modelled magnetic susceptibility shells are: – grey 25,000 SI units; red – 50,000 SI units. All magnetic inversions & modelling were done by geophysical consultant John Caon of Caon Geophysics.



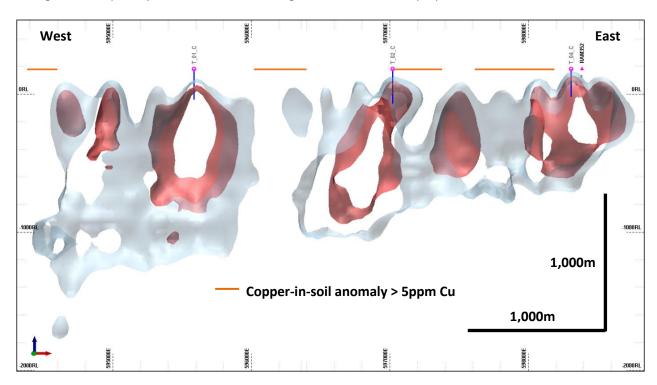
**Figure 5: Nankivel Rim -** Same view as Figure 3: showing modelled magnetic targets (shell colours as for Figure 2). Proposed drill holes are shown (red - accessible for December drilling; yellow – access to be determined by heritage surveys in 2015).



**Figure 6: Nankivel Rim:** Side-on view looking northeast of modelled magnetic targets with large Nankivel Deeps body also shown. The amplitude of the largest magnetic peak at Helen is 900 nanoTeslas. Drill hole traces are as described for Figure 5.



**Figure 7: Trojan Horse Section looking north** – Modelled magnetic targets and associated copper-in-soil anomalies. Magnetic susceptibility shell colours are as for Figure 2. Three of the six proposed December drill tests shown.



#### For further information contact:

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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 minerals frontier in South Australia's southern Gawler Craton.

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 at least two other epithermal fields at Ajax and Uno/Morgans, giving Investigator Resources Limited first mover opportunities across the Uno Province.

The Paris mineralisation is considered to have formed at the same time as the Olympic Dam IOCG deposit and opens up new target potential for epithermal, porphyry and IOCG-style deposits in the southern Gawler Craton. Investigator's targets include the Roundabout and Spyall copper-gold IOCG deposits on Yorke Peninsula scheduled for drilling in early 2015.

#### **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.

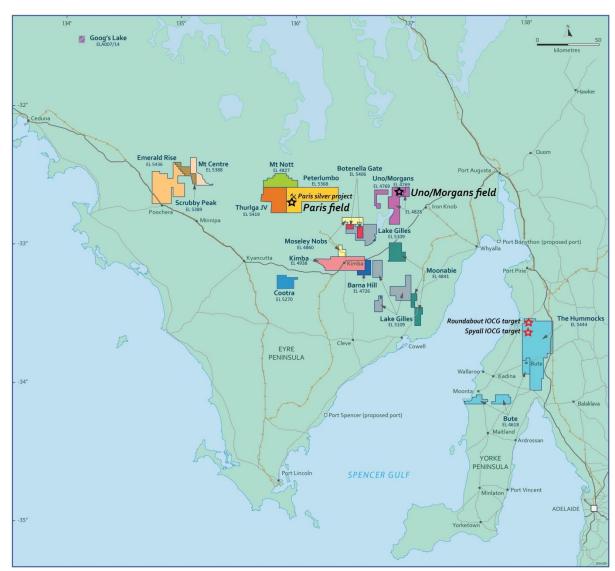


Figure 8: Plan of Investigator Resources' tenements showing key target areas

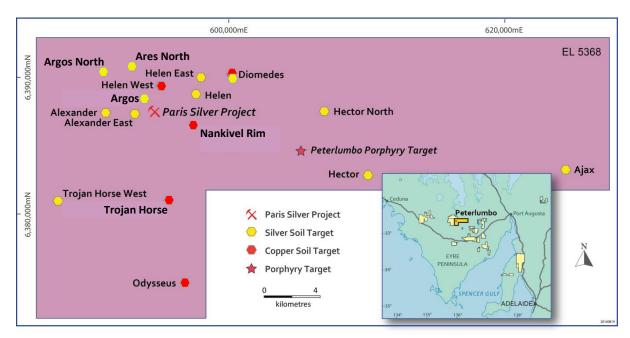


Figure 9: Location of Prospects within the Peterlumbo Tenement.

### **APPENDIX 1**

# TABLE 1: PETERLUMBO TENEMENT, AEROMAGNETIC/RADIOMETRIC SURVEYING, NOVEMBER 2014 - 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.	Regional scale aeromagnetic/radiometric survey conducted on 100m north-south flight lines with 1,000m tie lines and a nominal 30m terrain clearance. Radiometrics recorded 1 to 2 times per second, magnetics recorded at 20Hz sampling rate. GPS positioning recorded every 0.5 seconds at 0.5m accuracy.
	<ul> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> </ul>	<ul> <li>Nankivel-Paris detailed aeromagnetic/radiometric infill survey conducted on 50m flight lines orientated on 056 to 236 degree flight lines with 1,000m tie-lines and a nominal 30m terrain clearance. Radiometrics recorded 1 to 2 times per second, magnetics recorded at 20Hz sampling rate. GPS positioning recorded every 0.5 seconds at 0.5m accuracy.</li> </ul>
	• 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.	<ul> <li>All instrumentation calibrated as part of Aerosystems Australia Pty Ltd survey proposal number AS14015.</li> <li>All collected data field checked for errors and further verified by Aerosystems Australia Pty Ltd nominated independent QA and data processing firm, Baigent Geosciences. Further QA integrity checks by IVR nominated consultant geophysicist, Caon Geophysics.</li> <li>No other sampling techniques apply to this release.</li> </ul>
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.).	No information given, no drilling forms a part of this release.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	No information given, no drilling forms a part of this release.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	<ul> <li>No inferred relationships implied, no drilling forms a part of this release.</li> </ul>
	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.	
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.	<ul> <li>No information given, no drilling forms a part of this release.</li> <li>Quantitative data logging in the form of magnetic intensity, radiometric count and terrain modelling by way of aerial surveying.</li> </ul>
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	<ul> <li>No core logging or photography, no drilling forms a part of this release.</li> </ul>
	The total length and percentage of the relevant intersections logged.	
Sub- sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.  If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	<ul> <li>No drill sampling relating to this release.</li> <li>Aerial survey spacing was designed in consultation with IVR appointed independent consultant geophysicist, Caon Geophysics and is appropriate for the scale of target sought for identification by</li> </ul>
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.  Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	<ul> <li>Aerial magnetics and radiometrics data was field checked by Aerosystems Australia Pty Ltd prior to forwarding to Baigent Geoscience for independent QA and processing. Further data checking prior to processing and modelling was undertaken by Caon Geophysics.</li> </ul>
	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.	Data generated from this survey was compared to historical (and lower quality data) and observed to be consistent in location of broad anomalies and structures.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Aerosystems Australia Pty Ltd was engaged to conduct the geophysical survey over the areas outlined in the accompanying document.
tests	<ul> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>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.</li> </ul>	<ul> <li>Magnetic data accumulation was undertaken using a Geometrics G-823 Caesium Vapour Magnetometer ("G-823"). The G-823 meets the highest standards for airborne surveys meeting rigorous vibration and temperature environmental testing standards. The G-823 has an absolute sensor accuracy of &lt;3nT throughout the entire intensity range. A highly sensitive &lt;0.004nT rms at 20Hz sampling rate and ±0.15nT heading error over 360 degree equatorial and polar spins. The unit has fully automatic tuning throughout the earths field range along with automatic hemisphere switching.</li> </ul>
		<ul> <li>Radiometric data accumulation was undertaken using a Radiation Solutions RS-500 Digital Airborne Gamma Ray Spectrometer ("RS- 500"). The RS-500 requires no radioactive test sources for system setup or performance evaluation. Has high resolution (1024 channel) sampling from 1 to 2 times per second. Individual crystal analogue to digital converters allowing for greater automation and processing. Linear crystal output permitting multi crystal summing without distortion. High level self-diagnostics increasing reliability of acquisition and quality of data.</li> </ul>
		<ul> <li>Magnetic inversion processing was conducted by Caon Geophysics using Scientific Computing and Applications MGinv3D. The MGinv3D program can be used to invert magnetic and gravity data to generate 3D models of susceptibility. Image processing including Reduction to the Pole, Vector Residual Magnetic Intensity, Horizontal and Vertical Gradient algorithms. Standard imagery produced included Total Magnetic Intensity, Residual Magnetic Intensity, 1<sup>st</sup> and 2<sup>nd</sup> Vertical Derivative RTP.</li> </ul>
Verification of sampling and	The verification of significant intersections by either independent or alternative company personnel.	Initial field data was checked daily by suitably qualified technicians supplied by Aerosystems Australia Pty Ltd.
assaying	The use of twinned holes.	Data was further checked by Baigent Geoscience who are an

Criteria	JORC Code explanation	Commentary
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.  • Discuss any adjustment to assay data.	<ul> <li>independent contract QA and processing organisation appointed by Aerosystems Australia Pty Ltd.</li> <li>Further verification of data was undertaken by Caon Geophysics who are an independent consultant to Investigator Resources Pty Ltd</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Aeromagnetic/radiometric surveys</li> <li>All coordinates are recorded in GDA 94 MGA Zone 53.</li> <li>Data-logging in the helicopter acquisition system uses a Novatel OEMV-1G card. This is a 36 channel receiver that receives both GPS and GLONASS signals and offers a 0.5m accuracy outputting position every 0.5 seconds to a GeoResults "ZDAS" acquisition and control module.</li> </ul>
Data spacing and distribution	Data spacing for reporting of Exploration Results.      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.      Whether sample compositing has been applied.	<ul> <li>Data collection spacing was considered sufficient for the type and size of the survey being flown and the targets that are being investigated.</li> <li>No drilling relates to this release and as such no information relating to geological and grade continuity can be made.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether sample compositing has been applied.</li> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>Orientation of survey data for the reconnaissance broad scale aerial survey was chosen on a best fit basis given the wide range of orientations of structures known to exist in the area. The north-south orientation was also chosen to allow easy merge of data with previous similarly detailed surveying conducted over the western half of the tenement.</li> <li>Nankivel-Paris detailed survey was flown at 056 to 236 degrees oriented flight lines which were as per recommendation of Caon Geophysics as the optimum orientation to provide maximum information on prospective targets in relation to the varied structural orientations.</li> </ul>
Sample	The measures taken to ensure sample security.	Data was collected and transmitted electronically to Baigent

Criteria	JORC Code explanation	Commentary
security		Geoscience, with final verified and corrected data delivered to IVR who have retained on secure server. Corrected data was electronically delivered to Caon Geophysics for processing and modelling.
		All final modelling and image data has been provided to IVR and is stored on secure server and backup under IVR control.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Original data was reviewed by Baigent Geoscience with further review conducted by Caon Geophysics prior to processing.

# **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	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>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").</li> <li>IVR manages EL5368 (Peterlumbo tenement) and holds a 100% interest.</li> <li>EL5368 is located on Crown Land covered by several pastoral leases.</li> <li>An ILUA has been signed with the Gawler Range Native Title Group and the Peterlumbo tenement has been 'Culturally and Heritage' cleared for exploration activities.</li> <li>There is no registered Conservation or National Parks on EL5368.</li> <li>An Exploration PEPR for the entirety of EL5368 has been approved by the Department for State Development ("DSD"), formally DMITRE.</li> </ul>
Exploration done by other parties  Geology	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>There has been limited exploration work on the tenement, by other parties.</li> <li>Previous magnetic and gravity surveying was conducted in the areas covered within this document at less detailed survey density.</li> <li>The target is Paris-style silver-lead and potential copper-gold porphyry style mineralisation associated with the Hiltaba/Gawler</li> </ul>
Drill hole	A summary of all information material to the understanding of the	Range Volcanic Suite. Lithologies intersected in the region have included Gawler Range volcanoclastics and volcanics, mafic intrusives, Hutchinson Group metasediments, Hiltaba age granitoids and younger granodiorites.  • No drilling related to this release.

Criteria	JORC Code explanation	Commentary
Information	exploration results including a tabulation of the following information for all Material drill holes:  o easting and northing of the drill hole collar  o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar  o dip and azimuth of the hole  o down hole length and interception depth  hole length.	No material information is excluded.
	<ul> <li>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.</li> </ul>	
Data aggregation methods	<ul> <li>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.</li> </ul>	<ul> <li>No grade related reporting is associated with this release.</li> <li>No metal equivalents are reported.</li> </ul>
	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.	
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between mineralisation	These relationships are particularly important in the reporting of Exploration Results.	No drilling results associated with this release.
widths and intercept lengths	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	
	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').	
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being	Attached plan shows survey areas covered in this release.

reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	<ul> <li>Attached plan shows results of the survey as processed by Caon Geophysics.</li> <li>Modelled magnetic susceptibility shells provided by Caon Geophysics.</li> <li>No reporting of drill exploration results in the current release.</li> </ul>
	No reporting of drill exploration results in the current release
**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.	rio roporting of arm exploration research in the carrein research
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.	<ul> <li>Mineralisation is likely to be hosted by weathered and intensely altered volcanic lithologies and contact zones with granitoids where primary textures may be hard to distinguish or are obliterated.</li> <li>Groundwater is generally present below 40m depth.</li> <li>There are a number of drill collars that are historical (non-IVR) within the Peterlumbo tenement.</li> <li>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.</li> <li>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 64km² 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.</li> <li>Partial leach soil sampling was incorporated in targeting of drilling.</li> <li>Aeromagnetic data (100m flight line spacing) covers western half of</li> </ul>

Criteria	JORC Code explanation	Commentary
		EL5368 (area not covered in the current survey) from previous surveying.
		Limited gravity coverage exists over the area.
		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).	Subject to Board approval further modelling and subsequent target investigative drilling may be undertaken.
	<ul> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	