

29 January 2015



# Assay results continue to develop copper gold and silver potential around the Paris Silver Project

- New assays for December drilling support an upgraded target model for the Paris-Nankivel mineral system
  - Another intersection at Helen copper prospect of 19m @ 0.58% Cu and 21g/t Ag from 176m including 4m @ 1.17% Cu, 58g/t Ag and 0.33g/t Au from 176m
  - Anomalous gold lead and zinc intersections in scout drilling elsewhere around the Nankivel Intrusive Rim
- Upgraded skarn Cu Au Ag potential around the Nankivel Rim and a Central Cu Au porphyry target with further drill testing proposed in the first half of calendar 2015.

Investigator Resources Limited (ASX Code: IVR) drilled 15-holes (PPRC330 to PPRC344) in December 2014 within the 100% Investigator-held Peterlumbo tenement that includes the Paris Silver Resource. The drilling program was following up on shallow copper-gold targets identified from recently completed magnetic modelling and previous copper-gold intersections at the Helen Copper Prospect.

Investigator's Managing Director John Anderson said "Drilling was undertaken near Paris right up to Christmas, as we continue to expand the copper gold and silver potential and the exploration understanding of the district-scale mineral system.

Following the encouraging copper-gold intersections at Helen from the September 2014 scout drilling program and the subsequent airborne magnetic survey, a number of copper-gold magnetic targets were identified and initial drill testing was done on the accessible targets.

More copper was intersected at Helen and this demonstrates the potential of the large 12km long rim of the Nankivel intrusive complex for skarn-style copper gold silver. Combining this new assay data with all our historical knowledge of the area, we have refined our target model for the Paris-Nankivel mineral system. Investigator now recognises three new accessible and high-priority targets at:-

- a) Nankivel Central with potential for a porphyry/breccia Cu Au deposit
- b) Helen Southwest Cu Au skarn target on the Nankivel Rim; and
- c) Nankivel West silver gold target.

These accessible targets will be readied for drill testing in the June quarter after upcoming gravity detailing to further refine the targets.

Four other skarn copper gold targets around the Nankivel Rim require heritage surveys and access negotiations." He added.

#### Introduction

As previously announced (Investigator ASX Releases; 5 December 2014), Investigator commenced a 15-hole slimline reverse circulation percussion ("RCP") drilling program in early December 2014 on copper-gold targets at Helen Copper, Nankivel Rim and Trojan Horse, all near the Paris Silver Project.

A number of new shallow copper-gold magnetic targets had been identified from the recently completed geophysical modelling within Investigator's 100% held Peterlumbo tenement (EL5368 - see Figures 1 and 2). Drilling initially commenced at the Helen Copper prospect, a follow-up of a previously identified copper-gold intersections (PPRC234: 45m @ 0.35% copper from 27m, (*including 9m @ 1.14% copper and 0.31g/t gold from 60m*) and 9m @ 377g/t silver and 0.15% copper from 132m; PPRC236: 45m @ 0.13% copper from 39m) at the first magnetic target in the district (Investigator ASX Releases; 18 September 2014). Drilling then continued at Nankivel Rim and then Trojan Horse prospects on modelled magnetic targets supported with copper soil anomalies.

In total, 15 holes (2,937m; PPRC330 to PPRC344) were drilled, with depths of between 120m and 294m (average depth 196m) (see Figure 3 and Table A). Two holes were drilled at the Helen Copper prospect with depths of 240m and 246m, four scout holes along the western rim of the Nankivel granodiorite with depths between 201m and 294m (average depth 248m) and nine-holes were drilled at the Trojan Horse prospect with depths between 120m and 228m (average depth 162m).

A plan of the recently completed RCP drilling is shown in Figure 3. Table A summarises the details of the RCP drill holes completed in December 2014.

Hole ID	Area	Easting	Northing	RL dtm (m)	Total Depth (m)	DIP	TAZ
PPRC330	Helen Copper	596,654	6,388,576	180	240	-70	60
PPRC331	Helen Copper	596,786	6,388,690	184	246	-70	200
PPRC332	Nankivel Rim	596,076	6,386,101	185	282	-75	45
PPRC333	Nankivel Rim	596,037	6,386,774	183	216	-75	90
PPRC334	Nankivel Rim	597,256	6,385,260	199	294	-70	290
PPRC335	Nankivel Rim	597,686	6,385,122	205	201	-90	-
PPRC336	Trojan Horse	594,310	6,382,667	169	156	-90	-
PPRC337	Trojan Horse	594,502	6,382,098	170	228	-70	180
PPRC338	Trojan Horse	595,108	6,381,407	173	120	-90	-
PPRC339	Trojan Horse	595,594	6,380,933	174	186	-90	-
PPRC340	Trojan Horse	596,289	6,381,031	176	120	-90	-
PPRC341	Trojan Horse	596,564	6,381,021	178	138	-90	-
PPRC342	Trojan Horse	597,032	6,380,720	179	162	-90	-
PPRC343	Trojan Horse	598,310	6,380,653	186	138	-90	-
PPRC344	Trojan Horse	597,641	6,379,554	194	210	-90	-

#### Table A: Drilled collars for new Peterlumbo Tenement

The RCP drilling was based upon magnetic inversion modelling around the Nankivel intrusive complex rim and anomalies interpreted to be similar at the Trojan Horse prospect that were accompanied in part by silver and copper soil anomalies. Drilling on the Nankivel Rim was limited to targets that had heritage clearance on the western side of the rim. The best magnetic targets lie on the eastern and southern rim and have not been heritage surveyed which is being sought.

Assay results have now been received for the 15-holes drilled. Tables B, C, D, E and F summarise copper, gold silver, zinc and lead intersections from the assays of the 15 holes (PPRC330 to PPRC344) drilled in December 2014.

Hole ID	Area	From (m)	To (m)	Thickness (m)	Cu (%)
PPRC330	Helen Copper	21	42	21	0.07
		75	78	3	0.06
		132	135	3	0.06
		141	144	3	0.07
		153	159	6	0.06
		189	192	3	0.09
		195	198	3	0.07
		231	234	3	0.09
		237	240	3	0.07
PPRC331	Helen Copper	149	162	13	0.13
		172	173	1	0.06
		176	195	19	0.58
		197	213	16	0.09
		214	221	7	0.07
PPRC343	Trojan Horse	75	78	3	0.08

#### Table B: Summary of new copper intersections from the Peterlumbo Tenement (Cut-off >0.05% Cu)

Table C: Summary of new gold intersections from the Peterlumbo Tenement (Cut-off >0.1g/t Au)

Hole ID	Area	From (m)	To (m)	Thickness (m)	Au (g/t)
PPRC331	Helen Copper	90	96	6	0.13
		176	180	4	0.33
PPRC333	Nankivel Rim	57	60	3	0.62

Table D: Summary of new silver intersections from the Peterlumbo Tenement (Cut-off >30g/t Ag)

Hole ID	Area	From (m)	To (m)	Thickness (m)	Ag (g/t)
PPRC331	Helen Copper	176	180	4	58.00

Table E: Summary of new zinc intersections from the Peterlumbo Tenement (Cut-off >0.1% Zn)

Hole ID	Area	From (m)	To (m)	Thickness (m)	Zn (%)
PPRC330	Helen Copper	54	57	3	0.10
		63	66	3	0.20
		90	99	9	0.26
PPRC331	Helen Copper	51	54	3	0.10
		111	117	6	0.15
		147	148	1	0.51
		176	187	11	0.34
		192	193	1	0.16
		210	211	1	0.10
PPRC332	Nankivel Rim	183	186	3	0.35
		216	225	9	0.70

#### Table F: Summary of new lead intersections from the Peterlumbo Tenement (Cut-off >0.1% Pb)

Hole ID	Area	From (m)	To (m)	Thickness (m)	Pb (%)
PPRC330	Helen Copper	15	21	6	0.12
		30	33	3	0.12
PPRC331	Helen Copper	147	148	1	0.15
		178	179	1	0.26
PPRC332	Nankivel Rim	219	222	3	0.10
PPRC334	Nankivel Rim	147	150	3	0.10

#### Discussion of the new results

A preliminary evaluation is provided here with the complex geology and high degree of alteration seen in these Paris-style breccia systems requiring on-going assessment of the drill results.

Refer to Appendix 1 for 'TABLE 1: Peterlumbo Tenement, reverse-circulating drilling result reporting December 2014 - 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.

Helen Copper Prospect:

The best Helen Copper assay results are:

PPRC331:

13m @ 0.13% copper from 149m; and 19m @ 0.58% copper 21g/t Ag from 176m, including 4m @ 1.17% copper, 0.33g/t gold and 58.0g/t silver from 176m.

The two holes drilled at Helen (PPRC330 and 331) which were targeting extensions of the mineralisation intersected in the previously drilled holes (PPRC234 and 236) showed similar geology of dolomitic assemblages and calc-silicates along with magnetite alteration and trace fluorite. Associated copper, lead, zinc, silver and gold mineralisation confirms the potential for skarn-style mineralisation although the copper values are lower than the initial PPRC234 intersection and the continuity of the respective intersections is difficult to interpret.

Figure 4 shows a section looking north at the Helen copper prospect showing drill holes PPRC234, 330 and 331. The holes tested the top of the depth-extensive magnetic body.

Nankivel Rim:

The best Nankivel Rim assay results are:

PPRC333: 3m @ 0.62g/t gold from 57m.

Other holes at Nankivel (PPRC332 to 335) were scout drilled on similar but lower intensity magnetic features on the rim of the intrusive complex. Of note was potassic alteration of the granodiorite complex accompanied by coarse possible replacement magnetite alteration and narrow intersections of anomalous gold, zinc and lead, again confirming the potential for skarn copper-gold mineralisation around the extensive and largely untested Nankivel Rim.

#### Trojan Horse:

The best Trojan Horse assay results are:

PPRC343: 3m @ 0.08% copper from 75m.

The holes at Trojan Horse were disappointing with only weak copper intersected in one hole and the holes largely finishing in magnetic mafic volcanics interpreted to be near the base of the Gawler Range Volcanic pile. Although this is a prospective position, the lack of mineralisation in the holes indicates the anomalous copper-in-soil geochemistry associated with the magnetic targets is derived from the high copper backgrounds in the mafic volcanics, rather than from another intrusive complex like Nankivel.

#### Revised Target Model and New Targets for the Paris-Nankivel mineral system

The new drill results including those of Trojan Horse, when incorporated with the past soil geochemical and geophysical data, enable an updated target model for the large Paris-Nankivel mineral system with new high priority targets for copper, gold and silver.

Figure 5 summarises the new model and targets.

The established silver prospects including Paris are interpreted to lie in an aureole around the central Nankivel granodiorite intrusive complex. The northwest-oriented suite of granodiorite and associated rhyodacite dykes are considered early precursors to the mineralising system. Overprinting (later) northeast to northerly orientated dykes are fluorite-bearing rhyolites that are intimately associated

with the Paris breccias and silver mineralisation. These dykes are the likely main mineralisers and are key indicators of mineral targets. The distribution of these prospective dykes is established from outcrop and drilling or is interpreted from geophysics.

There is a strong spatial association between silver and copper prospects and the rhyolite dykes particularly where these intersect: 1) the west-northwest ("NPA") structure connecting Nankivel, Paris and Argos; or 2) the rim of the Nankivel Granodiorite. Paris is wedged between such rhyolite dykes and the same associations with the rhyolite dykes are seen at Helen and Nankivel.

Drilling has determined the northern copper and gold anomalous soils at Diomedes and Helen West are associated with mafic volcanics probably connected to the early rhyodacite dykes at the base of the Gawler Range Volcanics. As such these anomalies are downgraded as being derived from unmineralised bedrock with a high copper background as at Trojan Horse.

However, two alternative copper-gold soil targets are recognised at a) Nankivel Central where a large coincident copper and gold soil target lies central to the Nankivel-Paris mineral system at prospective intersections of interpreted rhyolite dykes and the WNW NPA structure; and at b) Helen Southwest with potential for a skarn target on the Nankivel Rim at the intersection with the rhyolite dyke connecting Paris and Helen.

There are several regional and local geological aspects that support the potential for the Nankivel Central porphyry target. Firstly, the rhyolite dykes are probably derived from the deeper Buckleboo granite that is similarly aligned northeast and has oxidised geochemistry conducive for the formation of porphyry copper deposits in associated shallower intrusives like the Paris-Nankivel system.

The widespread alteration geology of the Nankivel Breccia and Paris prospects situated 3km in either direction along the NPA structure provide strong support for the Nankivel Central porphyry target. The high-sulphidation epithermal alunite alteration at Nankivel Breccia is a proximal indicator to a porphyry system.

Cerium geochemistry also provides support for the Nankivel Central target. Cerium is being developed by the industry as one of a suite of pathfinder elements indicating proximity to large mineral systems of Olympic Dam age such as Paris-Nankivel. Cerium has been variously analysed in drill and soil samples in the Paris-Nankivel area. Although the data only offers partial and irregular coverage, shallow scout holes drilled on the edge of the Nankivel Central target in 2011 are cerium anomalous similar to the anomalous cerium signatures along the NPA structure and at the Helen Copper prospect.

Another silver-gold soil target is delineated at Nankivel West on what may be the extension of the mineralising rhyolite dyke from the anomalous Nankivel Breccia.

Four undrilled skarn copper-gold targets are identified around the Nankivel Rim that are either awaiting heritage surveys or have been excluded from drilling by a prior heritage survey (Nankivel Breccia). Procedures have been implemented to undertake the required heritage survey.

#### **Forward Program**

The three new targets at Nankivel Central, Helen Southwest and Nankivel West are undrilled, are cleared for drilling by heritage surveys and are proposed for drill testing in the June quarter.

A gravity survey is scheduled for the Nankivel complex in February to detail rhyolite dykes, structures and gravity targets over the deeper modelled magnetic (potassic?) core (Nankivel Deeps – see Investigator ASX release - 3 December 2014) to the intrusive complex.

An infill soil survey is proposed to assist targeting within the eastern side of the Nankivel complex.

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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 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. This includes potential for copper gold IOCG deposits on Yorke Peninsula, where Investigator Resources Limited recently announced the high-priority Roundabout and Spyall IOCG geophysical targets near Port Pirie.

#### **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 1: Plan of Investigator Resources' tenements showing key target areas



Figure 2: Location of Prospects within the Peterlumbo Tenement

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Figure 3: Plan of the Peterlumbo tenement, showing the new drillholes reported for the December 2014 drill campaign

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**Figure 4:** Helen copper prospect - section looking north showing drill holes PPRC234, 330 and 331. The holes were testing the top of the depth-extensive magnetic body

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# APPENDIX 1 TABLE 1: PETERLUMBO TENEMENT, REVERSE-CIRCULATING DRILLING RESULT REPORTING DECEMBER 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	<ul> <li>Reverse-circulation ("RC") drilling was undertaken with collection of drill cuttings on meter (1.0m) intervals.</li> <li>RC sampling was initially undertaken on 3m composited intervals for</li> </ul>
	<ul><li>not be taken as limiting the broad meaning of sampling.</li><li>Include reference to measures taken to ensure sample representivity</li></ul>	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
	and the appropriate calibration of any measurement tools or systems used.	taken.
	• Aspects of the determination of mineralisation that are Material to the Public Report.	<ul> <li>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 sample quality due to clay and water issues prevented riffle splitting a</li> </ul>
	<ul> <li>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</li> </ul>	1m interval was spear sampled with a similar volume sample dispatched for geochemical analysis. Sampling method was recorded for each interval.
	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.	• Standards and duplicates were not routinely inserted in the initial 3m composite results program. Any re-sampling at 1m intervals routinely incorporates appropriate standards (1 standard every 25 samples) and duplicates (1 duplicate every 20 samples).
		• Each 1m drilled interval is qualitatively annotated with a sample quality based on weight, moisture content and sampling method.
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	Bullion Drilling were contracted to undertake RC drilling.

Criteria	JORC Code explanation	Commentary
	tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	• Drilling was completed using 5¾inch (14.605cm) face sampling percussion hammer. A face sampling 4¾inch (12.065cm) percussion hammer was utilised for a limited portion of the drill program with records kept for intervals.
		<ul> <li>RC drilling was vertical and inclined (refer collar table for hole details). Down hole surveys were taken approximately every 50m on inclined drillholes.</li> </ul>
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	A visual estimate of recovery over individual 1m drilled estimates was recorded.
	<ul> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	<ul> <li>Initial RC drilling only so no assessment of sample representivity or sample bias available.</li> </ul>
	<ul> <li>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.</li> </ul>	• Each 1m drilled interval is qualitatively annotated with a sample quality based on weight and moisture content.
Logging	<ul> <li>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.</li> </ul>	<ul> <li>Drill cuttings are qualitatively logged and photographed.</li> <li>Qualitative logging includes lithology, colour, mineralogy, description, marker horizons, weathering, texture, alteration and mineralisation.</li> </ul>
	• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	<ul> <li>All holes were logged and sampled over their entire interval.</li> </ul>
	The total length and percentage of the relevant intersections logged.	
Sub- sampling techniques	If core, whether cut or sawn and whether quarter, half or all core taken.	<ul> <li>See sampling section above for a description of sampling and sub- sampling techniques.</li> </ul>
and sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	• Sample sizes are considered appropriate for the expected grainsize of mineralisation.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	<ul> <li>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.</li> </ul>
	Quality control procedures adopted for all sub-sampling stages to	

Criteria	JORC Code explanation	Commentary
	<ul> <li>maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field.</li> </ul>	<ul> <li>Sub-sampling techniques are undertaken in-line with standard operating practices in order to ensure no bias associated with sub- sampling.</li> </ul>
	<ul> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	• 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	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <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>A certified and accredited global laboratory (ALS Laboratories) was used for all assays.</li> <li>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 analysis for gold using method AA26 50g fire assay with AA finish.</li> <li>Internal certified laboratory QAQC is undertaken by ALS Laboratories.</li> <li>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 one-metre analysis at 1 duplicate per 20 samples and 1 standard per</li> </ul>
		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. The use of twinned holes.  Documentation of primary data, data ontry precedures, 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.
	<ul> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Laboratory assay data is not adjusted aside from assigning over range results when appropriate, replacing "&lt;" with "-", and converting all results released as % to ppm.</li> </ul>

Criteria	JORC Code explanation	Commentary
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>Collar co-ordinate surveys</li> <li>All coordinates are recorded in GDA 94 MGA Zone 53.</li> <li>Surveys have been undertaken by IVR staff using a Garmin hand held GPS with an accuracy of ±5m.</li> <li>Topographic control uses a high resolution DTM generated by AeroMetrex 28cm survey (2012).</li> <li>Down hole surveys</li> <li>Down hole survey data using a reflex digital multi-shot survey tool was collected on all inclined holes approximately every 50m down hole and bottom of hole. A stainless steel lead rod was utilised during the program. A number of holes encountered significant interference due to magnetite mineralisation and were only reliable for dip measurements.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Initial reconnaissance RC drilling. 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.</li> <li>See drilling section above regarding composite sampling.</li> </ul>
Orientation of data in relation to geological structure	<ul> <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>	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

Criteria	JORC Code explanation	Commentary
		<ul> <li>employee with full IVR custody and control until handover to the laboratory.</li> <li>Assay pulps 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. Sample reject material is retained on site at ALS laboratories for a period of 90-days prior to disposal.</li> </ul>
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	<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	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>There has been limited exploration work on the tenement, by other parties.</li> <li>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.</li> </ul>
	Deposit type, geological setting and style of mineralisation.	<ul> <li>Drilling is targeting Paris-style silver-lead 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 younger granodiorites.</li> </ul>
Drill noie	• A summary of all information material to the understanding of the	Drill note information is recorded within the IVR in-house database

Criteria	JORC Code explanation	Commentary
Information	<ul> <li>exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <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>	<ul> <li>with all collar locations listed in the table accompanying this document.</li> <li>No material information is excluded.</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> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Aggregated intersections have been calculated separately for silver and lead using a 30g/t (30ppm) silver cut-off and 0.1% (1,000ppm) lead cut-off. Minimum intersection widths are 3m and up to 3m of internal dilution are included.</li> <li>Zinc intersections have been calculated using a 0.1% (1,000ppm) cut-off with 3m of internal dilution.</li> <li>Copper intersections have been calculated using a 0.05% (500ppm) lower cut-off with minimum composited widths of 3m and up to 3m of internal dilution included.</li> <li>Gold intersections have been calculated using a 0.1g/t (0.1ppm) lower cut-off with minimum composited widths of 3m and up to 3m of internal dilution permissible.</li> <li>Where 1m sampling has been undertaken then weighted average intersections for elements listed above have been calculated using minimum intersection widths of 1m and up to 1m of internal dilution with similar cut-off limits as defined above.</li> <li>No metal equivalents are reported.</li> </ul>
Relationship	These relationships are particularly important in the reporting of	Initial reconnaissance drilling only, thus geometric relationship of

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between mineralisation widths and intercept lengths	<ul> <li>Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	mineralisation to vertical drill orientation unknown.
	• 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 reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	<ul> <li>See attached plans showing drill hole density as well as the tabulated drill hole information data accompanying this document.</li> <li>Currently there is insufficient data to draw appropriate cross-sections.</li> </ul>
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.	<ul> <li>See attached table of intersections.</li> <li>Reported intersections use the criteria detailed in the above section "data aggregation methods".</li> </ul>
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 near surface and generally hosted by weathered and intensely altered volcanic lithologies where primary textures may be hard to distinguish or are obliterated.</li> <li>Groundwater is generally present below 40m depth and may be variable in quantity.</li> </ul>
		• There are a number of drill collars that are historical (non-IVR) within the Peterlumbo tenement.
		• 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.
		<ul> <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</li> </ul>

Criteria	JORC Code explanation	Commentary
		above the ground, at an average speed of 80km/hr., over an area of 64km <sup>2</sup> 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.
		Partial leach soil sampling was incorporated in targeting of drilling.
		• Aeromagnetic survey data (100m flight line spacing) covers the area assessed. Additional detailed (50m) flight line spaced aeromagnetic coverage of a portion of the area targeted was flown in 2014 and utilised in targeting of the reported program.
		Limited gravity coverage exists over the area.
		<ul> <li>Substantial field mapping was incorporated in analysis of targets and in generation of conceptual models.</li> </ul>
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).	• Extension of gravity surveying to cover a portion of the area discussed in this release is programmed for late January 2015.
	<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>	Subject to Board approval further drilling may be undertaken.