



7th May 2018

## Preliminary Metallurgical Results for the Paris Silver Project Pre-Feasibility Study

### **Summary**

Investigator has received preliminary reports from the metallurgical and review consultants pertaining to metallurgical work undertaken to progress the Paris Silver Project.

The preliminary metallurgical results indicate that:

Cyanide leach trials achieved weighted average silver recoveries around 74% with a range of 65% to 89% for the three main geometallurgical domains.

Additional scrubbing, flotation and mineralogical tests are continuing, aimed at recovering lead and more of the non-leaching silver.

These metallurgical results aim to enable the design and costing of a process flowsheet.

Investigator's Managing Director John Anderson said "The results reported by the metallurgical consultants are consistent with 2013 testwork but require some further investigation to augment silver recovery and bring the processing options to a logical conclusion. This is expected to be reported in June 2018. The metallurgical performance of the Paris silver deposit is seminal in the decision to bring the Project into production and is worthy of the critical attention being applied to its' resolution."

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### Introduction

Investigator Resources Limited (ASX Code: IVR) provides an update on the progress on metallurgical results carried out as part of the Pre-Feasibility Study ('PFS') on the Company's Paris Silver Project.

The project lies within the Peterlumbo tenement on the northern Eyre Peninsula of South Australia (Figure 1). The Paris silver deposit has an estimated Indicated and Inferred JORC Mineral Resource of 9.3 million tonnes at 139g/t silver and 0.6% lead (at a 50g/t silver cut-off) (Investigator ASX Release: 19 April 2017). The deposit occupies an area of about 400m by 1,600m with a shallow flat tabular geometry that is conceptually mineable by open-pit to 160m depth below the flat surface.

As announced previously (Investigator ASX Release: 21 October 2013), the results of initial standard metallurgical laboratory tests for the Paris Silver Project showed metallurgical performance in laboratory trials conducive to conventional processing paths. The initial silver leach recoveries were in the range 65% to 75% for the samples of breccia mineralisation typical of most of the Paris deposit.

### **Metallurgical Investigations for the PFS**

Following the release of the Paris Silver Mineral Resource estimate in April 2017, Investigator commenced a phased PFS study with a central focus on metallurgical performance. An extended geometallurgical study of the geologically complex Paris deposit enabled the selection of four domains (Oxide; Breccia transitional - no Mg/Ca; Breccia transitional - Mg/Ca; and Dolomite) (Figure 2) for metallurgical testing of larger and more representative samples (Investigator ASX Release: 14 November 2017).

The study is again being undertaken by the metallurgical testing and process engineering/flowsheet Company, Core Resources ("Core") in Brisbane.

Comminution testing showed that the Paris silver ore can be considered 'soft' and has relative low abrasive properties. This indicates potentially lower capital and power costs associated with the crushing and milling circuit (Investigator ASX Release: 14 November 2017).

In the 2018 study, Core has carried out flotation and leaching testwork, evaluating options for further improving silver recoveries, as well as identifying methods to recover lead/silver concentrate which was not examined in 2013.

Multiple mineralogical studies including scanning electron microscope work identified the main silver species as acanthite (silver sulphide - the most common globally mined silver mineral), chlorargyrite/bromargyrite (silver chloride & bromide) and primary native silver. All species identified are generally less than 30 microns in grainsize, and mostly less than 10 microns. The lead minerals are predominantly galena (lead sulphide), laurionite (lead chloride) and coronadite (lead manganese oxide).

Grinding of the breccia ores to P<sub>80</sub> of 53 microns (80% passing 53 microns) enabled 65% to 85% silver leach recoveries (Table A) by cyanide leaching with lead nitrate or hydrogen peroxide pre-conditioning. The Dolomite domain returned 89% silver leach recoveries without pre-conditioning. The Oxide domain has performed poorly in leach trials thus far and, as this domain only hosts 5% of the resource it is discounted from the PFS. The balance of the silver that remained unleached is referred to as refractory silver. Ultra-fine grinding to 10 microns achieved improved silver recoveries in similar leach trials, but is unlikely to be an economic pathway.

Table A         Paris silver project: Metallurgical tests – leach results			
	Host Domain	Estimated % of Indicated Resource Hosted	Leach silver recoveries
Shallow	Oxide	5%	8%
	Breccia Transitional (No Mg/Ca)	54%	65%
	Breccia Transitional (Mg/Ca)	32%	85%
Deeper	Dolomite (hosted)	9%	89%

Flotation and gravity tests were undertaken to assess the recovery of lead in concentrates along with some of the refractory silver in the Breccia Transitional (no Mg/Ca) domain. These tests produced concentrates with poor lead recoveries of approximately 8% in a flotation concentrate and 24% in a gravity (Knelson) concentrate. The unrecovered lead is attributed to the coronadite content and fine galena inclusions in quartz.

Additional scrubbing tests are being completed aimed at rejecting gangue minerals ahead of leaching. Additional flotation tests are investigating options for further upgrading of the silver and lead concentrates.

Mineralogical studies have thus far identified very fine-grained native silver inclusions in quartz as one of the refractory silver species. On-going scanning electron microscopy is seeking further avenues to optimise the silver recovery.

Core will prepare a process flowsheet, mass and water balance/model, process description and a final process report for inclusion in the PFS in June 2018.

The Company is considering further testwork using CELP (CANMET Enhanced Leaching Process) technology.

## Other work towards the Paris Pre-Feasibility Study

Geotechnical, waste characterisation and infrastructure costing studies are on-going and will be reported as final reports are received. The completion of the metallurgical and geotechnical studies will enable the Company to make a decision on the future of the Project.

\* \* \*

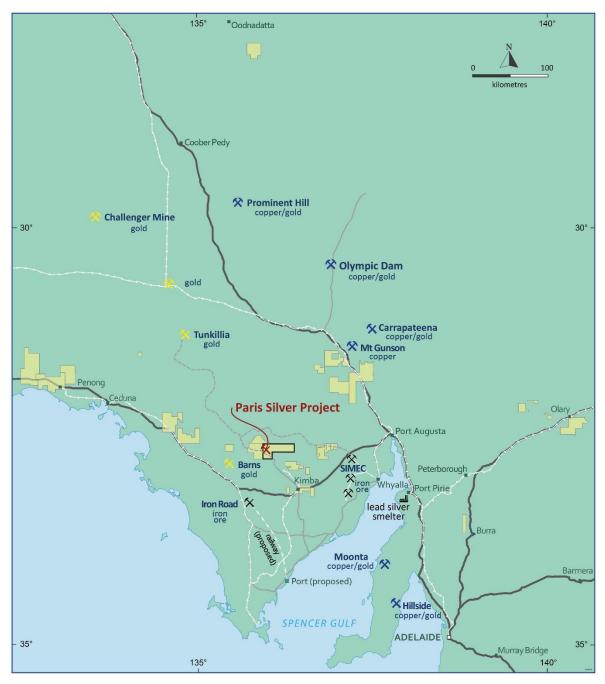
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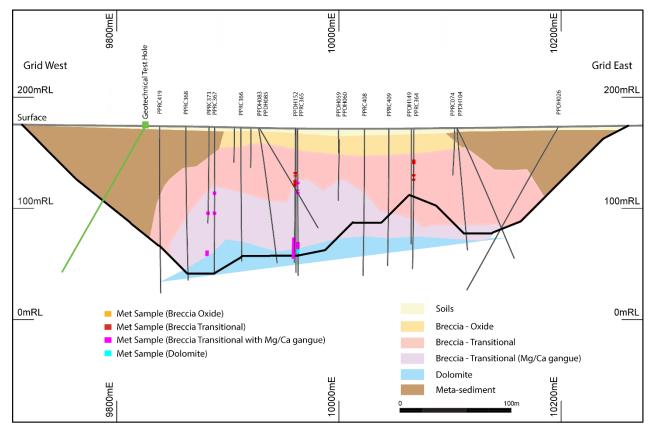
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**Figure 1**: Plan showing Investigator tenements (yellow) and the Paris silver project in relation to mining operations & infrastructure. The 100% IVR held Peterlumbo tenement containing Paris Silver Project is shown with the black outline.







Section 51360N +/- 15m Section Window

#### **Competent Person Compliance Statement**

The information in this announcement 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 gualify 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 announcement that relates to Mineral Resources Estimates at the Paris Silver Project is extracted from the report entitled "Significant 26% upgrade for Paris Silver Resource to 42Moz contained silver" dated 19 April 2017 and is available to view on the Company website <u>www.investres.com.au</u>. 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.

### **Investigator Resources overview**

Investigator Resources Limited (ASX code: IVR) is a metals explorer with a focus on developing its 2011 Paris silver discovery in the southern Gawler Craton on South Australia's northern Eyre Peninsula.

The Company announced a revised upward estimation for the Paris Silver Project Mineral Resource to 9.3Mt @ 139g/t silver and 0.6% lead, comprising 42Moz of contained silver and 55kt of contained lead, at a 50g/t silver cut-off. The resource has been categorised with an Indicated Resource estimate of 4.3Mt @ 163g/t silver and 0.6% lead for 23Moz contained silver and 26kt contained lead, and an Inferred Resource: 5.0Mt @ 119g/t silver and 0.6% lead for 19Moz contained silver and 29kt contained lead.

The Company is accelerating the development pathway for the Paris silver project with the preparation of a Pre-Feasibility Study.

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# **APPENDIX 1** TABLE 1: Paris Silver Project within the Peterlumbo Tenement – Pre-Feasibility Study Progress, May 2018 - JORC 2012

## **Section 1 Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Comr	mentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, r specific specialised industry standard measurement to the minerals under investigation, such as down h sondes, or handheld XRF instruments, etc.). These not be taken as limiting the broad meaning of samp</li> <li>Include reference to measures taken to ensure sam and the appropriate calibration of any measurement used.</li> <li>Aspects of the determination of mineralisation that a Public Report.</li> <li>In cases where 'industry standard' work has been or relatively simple (e.g. 'RC drilling was used to obtai from which 3 kg was pulverised to produce a 30 g c say'). In other cases more explanation may be required where there is coarse gold that has inherent sampli sual commodities or mineralisation types (e.g. subramay warrant disclosure of detailed information.</li> </ul>	t tools appropriate ole gamma examples should ling. ple representivity t tools or systems are Material to the one this would be in 1 m samples harge for fire as- ired, such as ng problems. Unu-	<ul> <li>Iurgical Testwork Sampling:</li> <li>Samples for metallurgical testwork were composited from mineralised intervals that were considered representative of each geometallurgical domain within the Paris deposit. These domains included Breccia Oxide, Transitional Breccia (No Mg/Ca), Transitional Breccia (Mg/Ca indicating carbonate gangue) and Dolomite.</li> <li>Metallurgical samples were obtained from coarse RC sample material remaining after riffle split sampling for assay at the time of drilling (field coarse reject material). Material was stored on site in individual meter bags until return of assays from ALS laboratories occurred. Samples were then quarantined off if mineralised intersections were greater than the selective mining unit (2m) and representative of the style of mineralisation encountered at Paris. Samples were retained in their original plastic bags with hole number and sample number preserved for identification. Samples were stored in sealed drums under argon gas to reduce oxidation.</li> <li>Following geometallurgical classification work, samples were reorganised into drums based on their unique geochemical criteria – oxidised breccia, transition sulphide breccia, transition sulphide with Mg/Ca gangue association and dolomite material. Samples were then dispatched to Core Resources (Brisbane) ("Core Resources") for further composite domaining prior to testwork.</li> <li>Records of samples selected and geometallurgical domain are retained.</li> <li>Comminution test samples were obtained from representative</li> </ul>
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Criteria	JORC Code explanation	Commentary
Drilling tech- niques	<ul> <li>Drill type (e.g. core, RC, open-hole hammer, rotary a Bangka, sonic, etc.) and details (e.g. core diameter, tube, depth of diamond tails, face-sampling bit or oth core is oriented and if so, by what method, etc.).</li> </ul>	triple or standard detail in Table 1 documents and the reader is referred to prior ASX
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sa and results assessed.</li> <li>Measures taken to maximise sample recovery and a tive nature of the samples.</li> <li>Whether a relationship exists between sample recovery and whether sample bias may have occurred due to loss/gain of fine/coarse material.</li> </ul>	<ul> <li>All material sampled for metallurgical testwork was obtained from drilling completed in 2016 and utilised in the 2017 Paris resource estimate. Readers are directed to previous Table 1 documents that relate to the resource estimate which covers the sample recovery in detail and is available on the Company's website, <u>www.inves-tres.com.au</u>.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologic nically logged to a level of detail to support appropria source estimation, mining studies and metallurgical</li> <li>Whether logging is qualitative or quantitative in natu tean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant inter</li> </ul>	<ul> <li>Qualitative logging includes lithology, colour, mineralogy, description, marker horizons, weathering, texture, alteration and mineralisation.</li> <li>Quantitative logging includes magnetic susceptibility, RQD, orientation data.</li> <li>Lithologies that were hard to identify, or which there was a need to provide greater information on mineralisation or alteration were sub-</li> </ul>
Sub-sam- pling tech- niques and sample prep- aration	<ul> <li>If core, whether cut or sawn and whether quarter, hat taken.</li> <li>If non-core, whether riffled, tube sampled, rotary spl. whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriate sample preparation technique.</li> </ul>	<ul> <li>in prior Table 1 documents and the reader is referred to prior ASX releases for information on these programs are available on the Company's website, <u>www.investres.com.au</u>.</li> <li>Metallurgical Sampling:         <ul> <li>All original RC material was coarse reject sample left over from riffle</li> </ul> </li> </ul>
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Criteria	JORC Code explanation	Commentary
	<ul> <li>Quality control procedures adopted for all sub-sampling stages to 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 duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>sample for assay.</li> <li>Sub sampling conducted by way of riffle or cone splitting as required by Core Resources in order to produce composited blend material that was representative in grade of the domain being tested. Representative domain grades were obtained by quantifying the average resource estimate grade for each modelled geometallurgical domain utilising the existing block model produced by H&amp;SC consultants as part of the JORC compliant 2017 Paris resource estimate. The grade is indicative of each domain and may have a small degree of error dependent on whether some blocks fall partially within or without of the modelled domain. Grades were cross checked against the estimated grades within oxidation states completed during the 2017 resource estimate and found to be of similar tenor and are considered representative.</li> <li>All metallurgical sample utilised in this program was obtained from the central infill drilling that was completed in 2016 and is classified as indicated as part of the 2017 Paris resource estimation. It is representative of this area of the deposit and considered to be representative of the wider deposit, however given a breccia hosted mineralisation style there may be some internal variation present that is not accounted for at this level of study.</li> <li>Metallurgical material available totals approximately 4.5t with individual composite samples selected down to between 77kg (oxide) to approximately 1,200kg (Transition breccia material).</li> <li>Sample intervals were selected from available diamond drill core from the 2016 Paris resource article and consultation with the independent metallurgical consultants.</li> <li>Comminution Sampling:</li> <li>Available half core sample material was collected from intervals to supply an appropriate sample volume (100Kg - 200kg per sample) of material (2 x domains).</li> <li>Available half core sample material was selected from intervals to supply an appropriate sample volume (100Kg - 200kg per sample) of material form interval</li></ul>

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Criteria	JORC Code explanation	Commentary
		Tests for compressive strength, bond impact crushing, SMC, bond abrasion and bond ball mill work index were undertaken by Core Resources to industry standards.
Quality of assay data and labora- tory tests	<ul> <li>The nature, quality and appropriateness of the assatory procedures used and whether the technique is or total.</li> <li>For geophysical tools, spectrometers, handheld XR etc., the parameters used in determining the analysment make and model, reading times, calibrations their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. sduplicates, external laboratory checks) and whethe of accuracy (i.e. lack of bias) and precision have been advented to be added to be a</li></ul>	<ul> <li>considered partial confirm blended composite domains contained expected grades of silver and lead that are representative of each domain.</li> <li>Representative samples of each blended domain produced by Core Resources at their laboratories were sampled and check assayed by IVR utilising an independent accredited laboratory to confirm accuracy.</li> <li>All testwork was undertaken by certified and accredited laboratories/test facilities, including Core Resources, and sub-contractor's; Bureau Veritas (Comminution tests), Gekko Systems (Cyanide destruction tests) and Centre for Ore Deposit and Earth Sciences - Uni-</li> </ul>
Verification of sampling and assay- ing	<ul> <li>The verification of significant intersections by either ternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedu tion, data storage (physical and electronic) protocol</li> </ul>	house referential and integrated database system designed and man- aged by Investigator Resources Limited ("IVR"). All assay data is cross-validated using MicroMine drill hole validation checks including interval integrity checks. All diamond core and RC chip photography is saved electronically on company servers for reference.
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Criteria	JORC Code explanation	Commentary
	Discuss any adjustment to assay data.	component.
		Laboratory assay data is not adjusted aside from assigning over range results when appropriate, replacing "<" with "-", and converting all result released as % to ppm.
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><u>Collar co-ordinate surveys</u></li> <li>All coordinates are recorded in GDA 94 MGA Zone 53.</li> <li>Surveys have been undertaken by IVR staff using a Trimble R2 RTK Rover Differential GPS with Omnistar HP processing with an accuracy of +/-10cm.</li> <li>Topographic control uses a high resolution DTM generated by Aero- Metrex 28cm survey (2013) and cross-validated using the Omnistar HP DGPS.</li> </ul>
		<b>Down hole surveys</b> Down hole surveys are completed on approximately 30m intervals and at end of hole. All surveys taken are recorded within the electronic data base and validated for obvious errors or faults by the site geological team at the time. Faulty or erroneous readings are rejected but have in formation retained in the database.
Data spacing and distribu- tion	<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</li> </ul>	All drilling discussed in this release has been previously outlined in deta in prior Table 1 documents and the reader is referred to prior ASX re- leases for information on these programs available on the Company's website, <u>www.investres.com.au</u>
	Resource and Ore Reserve estimation procedure(s) and classifica- tions applied.	• Sample compositing has been applied to create the representative metallurgical domains for testing.
	Whether sample compositing has been applied.	<ul> <li>No Mineral Resource estimation was undertaken in relation to this release.</li> </ul>
Orientation of data in re- lation to geo- logical struc-	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	All drilling discussed in this release has been previously outlined in deta in prior Table 1 documents and the reader is referred to prior ASX re- leases for information on these programs available on the Company's website, <u>www.investres.com.au</u>
ture	<ul> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sam- pling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>Drilling utilised in selection of metallurgical testwork samples is vertical in nature and appropriately targets the flat lying orientation of mir eralisation at Paris and is considered to be oriented appropriately for identifying silver mineralisation hosted within the deposit.</li> </ul>

Criteria	JORC Code explanation	Commentary
Sample se- curity	The measures taken to ensure sample security.	<ul> <li>All drilling and sampling is undertaken under the direction of an IVR geologist.</li> <li>Metallurgical samples were collected from retained coarse reject RC drill material which was stored under the direction of IVR geologists in sealed steel drums under argon gas to reduce oxidation as much as possible. Final sample selection was undertaken by an IVR geologist in consultation with Core Resources and individual samples were selected and placed into steel drums which were filled with argon gas and sealed with silicone and steel bands to provide an airtight and secure environment. Drums were palletised and securely strapped and dispatched to Brisbane by a reputable contracted freight. Sample numbers on all bags were cross checked by Core Resources on arrival in Brisbane to confirm that samples provided match the sample dispatch list provided by IVR.</li> <li>Comminution samples were selected under the direction of an IVR geologist from remaining drill core stored in a secure warehouse. This core was stored unrefrigerated and was placed into named and numbered plastic bags before sealing in a series of buckets prior to dispatch by commercial freight to Brisbane.</li> <li>Drill samples for assay are placed in individually numbered calico bags which reference the interval being sampled. Calico bags are then placed in poly weave sacks and cable tied prior to transportation by IVR staff or field crew to the Adelaide based laboratory. A sample dispatch register recording intervals, date of transport and person responsible for transport is maintained.</li> <li>Master pulps and coarse reject material is retained from the laboratory for potential re-analysis.</li> </ul>

Criteria	JORC Code explanation	Commentary
Audits or re- views	The results of any audits or reviews of sampling techniques and data.	<ul> <li>No audits or reviews have been undertaken for work undertaken in the current release relating to sampling techniques.</li> <li>Review of multi-element data as part of the geometallurgical modelling independently confirmed a number of modelled domains completed by IVR and the resource estimation consultants H&amp;SC during the 2017 resource estimation.</li> </ul>

## **Section 2 Reporting of Exploration Results**

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

Criteria	JORC Code explanation	Commentary
Mineral tene- ment and land tenure status	<ul> <li>Type, reference name/number, location and ownership include agreements or material issues with third parties such as joint tures, partnerships, overriding royalties, native title interests, cal sites, wilderness or national park and environmental settine</li> <li>The security of the tenure held at the time of reporting along any known impediments to obtaining a licence to operate in t area.</li> </ul>	<ul> <li><i>iven-</i> <i>histori-</i> <i>histori-</i> <i>ngs.</i></li> <li>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% in- terest.</li> <li>EL5368 is located on Crown Land covered by several pastoral</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other partie	<ul> <li>There has been limited exploration work on the tenement, by other parties.</li> <li>A number of shallow air core holes (generally with depths of 25m or less), were completed by Shell Ltd and Aberfoyle Ltd within the tenement. An additional three RC drill holes were completed by MIM Ltd targeting the Nankivel Hills which identified evidence of high sulphidation alteration.</li> <li>No prior exploration completed on Paris Deposit by other companies has occurred.</li> </ul>
Geology	• Deposit type, geological setting and style of mineralisation.	<ul> <li>The Paris Project is a silver/lead deposit that is hosted predominantly within a sequence of flat lying polymictic volcanic breccia related to the Gawler Range Volcanics.</li> <li>Paris is an intermediate sulphidation mineralised body associated with a felsic volcanic breccia system in an epithermal environment with a significant component of stratabound control. The deposit has an elongate sub-horizontal tabular shape with dimensions of</li> </ul>
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Criteria	JORC Code explanation	Commentary
		approximately 1.6km length and approximately 800m width and is sit- uated at the base of a Gawler Range Volcanic (mid-Proterozoic) se- quence at an unconformity with the underlying Hutchison Group (pal- aeo-Proterozoic) dolomitic marble. Some of the deposit impinges into the altered upper dolomite. The host volcanic stratigraphy comprises felsic volcanic breccia including dolomite, volcanic, sulphide, graphitic meta-sediment and granite clasts. The breccia host is fault-bounded on its long axis by variably graphitic meta-sediment indicating a possi- ble elongate graben setting to the deposit. The upper margin to the host breccia is a thin layer of unconsolidated Quaternary colluvium clays and sands to the present-day surface. Steep dipping, granitic dyke intrusions occur in the underlying dolomite and are interpreted to have intruded parallel to the body of mineralisation and a brittle struc- tural zone within the dolomite. Sporadic skarn alteration is observed within the dolomite and occurs at the margins of the dykes that is overprinted by the silver mineralisation. Felsic dyke intrusives and breccias occur at either end and at the centre of the deposit and may comprise different generations. These are interpreted to be associ- ated with multiple phases of intrusion, alteration and brecciation have been identified at Paris. Silver mineralisation is predominantly in the form of acanthite and native silver with a minor component as solid solution within other sulphide species (galena, sphalerite, arse- nopyrite <i>etc</i> ). High grade zones within the breccia can be in the form of coarse clasts or aggregates/disseminations of sulphide clasts and in some instances are closely associated with cross cutting dacitic and partially brecciated dykes which are likely associated with pre-ex- isting faults. A high degree of clay alteration has overprinted the brec- cia body, much of which is considered to be hypogene however a lim- ited zone of secondary weathering effects which is interpreted to have led to a limited zone of
Drill hole Infor- mation	<ul> <li>A summary of all information material to the underexploration results including a tabulation of the for for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation all metres) of the drill hole collar</li> </ul> </li> </ul>	number of intervals in holes drilled during the 2016 infill resource drill- ing program. All holes from this program have had their location pre- viously supplied in Table 1 (19 April, 2017, Significant upgrade for
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Criteria	JORC Code explanation	Commentary
	<ul> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul>	and grade the individual holes selected to produce the composite are not regarded as material and their exclusion does not detract from the understanding in this report.
	<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 aggrega- tion 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 results reported for mineral intersections as part of this release.</li> <li>No metal equivalents are reported.</li> <li>Metallurgical domain samples have been chosen by referencing silver and lead intersections that have been previously calculated using a 30g/t silver cut-off and 0.1% lead cut-off. Minimum intersec-</li> </ul>
	<ul> <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</li> </ul>	<ul> <li>tion widths are 1m and up to 1m of internal dilution are included in drill hole results.</li> <li>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.</li> </ul>
Relationship between min-	<ul> <li>should be clearly stated.</li> <li>These relationships are particularly important in the reporting of Exploration Results.</li> </ul>	<ul> <li>Not relevant to the information in this release as no drill intercepts are being reported.</li> </ul>
eralisation widths and in- tercept lengths	<ul> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	
	• 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	<ul> <li>Appropriate maps and sections (with scales) and tabulations of in- tercepts should be included for any significant discovery being re- ported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	No new plans of drilling and intercepts produced as no drill intercepts are being reported as part of this release.
Balanced re- porting	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.	No new drill intercepts reported.

Criteria	JORC Code explanation	C	ommentary
Other substan- tive explora- tion data	<ul> <li>Other exploration data, if meaningful and material, ported including (but not limited to): geological obs physical survey results; geochemical survey result size and method of treatment; metallurgical test re sity, groundwater, geotechnical and rock character deleterious or contaminating substances.</li> </ul>	should be re- servations; geo- ss bulk samples – sults; bulk den- ristics; potential	Mineralisation is likely to be hosted within highly altered and variably fractured and veined intrusives; however skarn mineralisation and overprinting may also be present. Regional targeting and interpretation has relied on aeromagnetic data flown by IVR on 200m line spacing in additional to closer spaced 80m line spaced aeromagnetic data covering the Paris-Nankivel area (all magnetic data has been previously reported). This data has identifie multiple orientations of variably magnetic and non-magnetic dykes within the tenement that are interpreted to represent different phases of intrusive, some of which may relate to Paris style dykes interpreted to be intimately related to mineralisation. Partial leach soil sampling was incorporated in targeting of drilling. Historical soil sampling of a coarser fraction (-2mm) was employed in some areas of the tenement and has in some instances had fewer elements assayed. More recent partial leach soils are -175 micron and tend to respond well to low level soil anomalies based on higher surface area for the leachant to react with. This soil sampling has been used for targeting in the past and continues to be used, although dispersion effects and possible false anomalies do occur. A gravity survey covering the wider Paris-Nankivel region and other prospects has previously been released and is used in targeting within the tenement. The gravity data is particularly useful at interpreting non-magnetic structures and dykes in the area. A VTEM survey consisting of a number of short lines across the Paris trend, in addition to horizontal flight lines across the tenement was undertaken as part of a government funded regional hydrological survey in 2014. Data was collected and processed by CSIRO who employed Geoscience Australia's layered-earth sample-by-sample inversion (GA-LEI) to invert the VTEM max data. This data has been utilised by IVR to assist in the identification of palaeochannels in addition to for coceptual models. Palaeochannel groundwater volumetric estimations are b
Further work	• The nature and scale of planned further work (e.g.	tests for lateral •	Alternatives to conventional processing are being considered to
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Criteria	JORC Code explanation	Commentary
	<ul> <li>extensions or depth extensions or large-scale step-out drilling).</li> <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>	optimise silver recoveries.

## **Section 3 Estimation and Reporting of Mineral Resources**

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Criteria Database in- tegrity	<ul> <li>JORC Code explanation</li> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Primary data is captured directly into an in-house referential and integrated database system designed and managed by Investigator Resources.</li> <li>All data is cross-validated using MicroMine for errors including missing intervals/from-to co-ordinate discrepancies/duplications, missing/duplicate holes, 3D hole deviation and missing survey information.</li> <li>The master database is a single server-hosted database managed by the Project Manager. All field database replicas are validated on upload then preserved for future integrity validation. Sensitive data fields such as assay results are only amendable by the Project Manager. Time-stamped/user records are kept to map all changes in the database.</li> <li>Hourly time-stamped backups are undertaken with daily and monthly backups to remote drive systems and cloud backup.</li> <li>Investigator Resources Limited ("IVR") takes full responsibility for the database</li> <li>Data sent to H&amp;S Consultants Pty Ltd (H&amp;SC) as a series of Excel files for collars, downhole surveys, lithology, alteration, mineralisation, assays, density and geotechnical data.</li> <li>Data was imported by H&amp;SC into an Access database with indexed fields, including checks for duplicate entries, sample overlap, unusual assay values and missing data.</li> <li>Additional error checking using the Surpac database audit option for incorrect hole depth, sample/logging overlaps and missing downhole surveys.</li> <li>Manual checking of logging codes for consistency, plausibility of drill hole trajectories and assay grades. Modifications made to li-</li> </ul>
		<ul> <li>terpretation.</li> <li>Negative assay values for silver due to below detection limits (73 samples) were confined to the aircore drilling and were left unchanged.</li> </ul>
		<ul> <li>-999 values representing unsampled areas were unchanged.</li> </ul>

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Criteria	JORC Code explan	ation		С	ommentary
				•	All negative values were ignored in the compositing (see check models section). Assessment of the data confirms that it is suitable for resource es- timation.
Site visits	the outcome of th	r site visits undertaken by the Con nose visits. we been undertaken indicate why			Jason Murray and John Anderson, employees of IVR, completed numerous site visits between 2012 and 2016, and have reviewed all drill core and RC chips, and all geological mapping and inter- pretation. A site visit of approximately three weeks was completed by Inde- pendent Consultant Bruce Godsmark of Mining Plus in 2013. A full review of drilling techniques, core and drilling data was com- pleted with only minor issues identified. A site visit was conducted by Mr Simon Tear, a director of H&SC for a period of three days during the 2016 infill resource drilling at Paris and reviewed drill core, drilling techniques, sampling and re- cording of information. Company representatives including the Competent Person at- tended the Core and Bureau Veritas laboratories to review and verify metallurgical and mineralogical test procedures and objec- tives.
Geological interpretation	<ul> <li>pretation of the m</li> <li>Nature of the data</li> <li>The use of geolog mation.</li> <li>The factors affect</li> </ul>	conversely, the uncertainty of ) th nineral deposit. a used and of any assumptions m gy in guiding and controlling Mine ting continuity both of grade and g of alternative interpretations on N	ade. ral Resource esti- geology.	•	Confidence in the geological interpretation at the Paris Project is regarded as high at a broad scale and also in areas where there is close spaced diamond drilling. Confidence decreases between drilled sections where sampling is on 100m line spacing and drill- ing of uncertain quality has been undertaken. The recent infill drilling has resulted in very modest changes to the existing geo- logical interpretation derived in 2015. Mineralisation is highly variable in grade distribution but generally flat-lying, predominantly located in the oxide-transition zone above a basement of older dolomitic marble that forms a "dome" feature within the area drilled. Mineralisation is bounded in lateral extent by graphitic and iron-rich metasediments in faulted contact to the host volcanic breccia. Depths to mineralisation within the Project area vary from near surface (~4m) to approximately 300m, with the majority of miner- alisation at $4m - 150m$ depths. Sulphide mineralisation is largely breccia hosted as dissemina- tions and clasts and includes acanthite as one of the major silver
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Criteria	JORC Code explanation	Commentary
		<ul> <li>mineral species in addition to inclusions within sulphide species, predominantly pyrite and galena. Other sulphide species identified include galena, arsenopyrite, pyrite, sphalerite +/- chalcopyrite. Significant amounts of native silver are also present.</li> <li>Mineralisation shows a geometry consistent with a degree of dispersion attributed to later hydrothermal alteration and/or supergene effects from weathering events.</li> <li>The majority of the contained silver occurs within the host breccia close to the dolomite basement contact. A degree of concentration of mineralisation on this interpreted palaeo unconformity is present.</li> <li>The main trend of mineralisation is approximately 320 degrees. A series of cross cutting structures and dykes have been observed at approximately 060 degrees, additional structures within the system are most likely present but obscured by the degree of alteration and overall brecciation.</li> <li>Lead mineralisation partly overlaps with the silver mineralisation. This may be the result of the formation of primary mineralisation related to some boiling effect or due to subsequent dissolution and reprecipitation of silver due to supergene weathering processes. The majority of lead is in the form of galena with some oxide lead as cerussite.</li> <li>Interpretation of the drillhole database allowed for the generation of 3D oxidation surfaces from wireframe strings snapped to drillholes for the cover sequence, base of complete oxidation (BOCO)</li> </ul>
		<ul> <li>and base of partial oxidation (BOPO) on 25m and 50m spaced sections. The Cover and BOPO surfaces were based on geological logging, multi-element assays and review of core photographs. The BOCO was primarily defined using sulphur assays, geological logging and core photo review. The surfaces were reviewed by H&amp;SC and if necessary adjusted for geological sense.</li> <li>No specific silver mineral zones were defined. This is acceptable</li> </ul>
		<ul> <li>No specific silver mineral zones were defined. This is acceptable with the proposed modelling method.</li> <li>3D geological definition comprised surfaces for the base of meta-</li> </ul>
		<ul> <li>SD geological definition comprised surfaces for the base of meta- sediment and the top of dolomite unconformity. The former was based on geological logging and multi-element assays particularly titanium, potassium and vanadium whilst the latter was based on geological logging, calcium and magnesium assays; both utilised</li> </ul>

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	geological sense. A 3D solid was created for the volcanic breccia based on geological logging, aluminium assays (a proxy for clay
Dimensions • The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	<ul> <li>alteration) and geological sense.</li> <li>In order to accommodate the lead mineralisation a main mineral solid with two minor peripheral solids were created from wireframs strings snapped to drillholes. A nominal lead cut off of 0.15% was used for the solids.</li> <li>Occasional deeper drillholes have intersected significant narrow silver mineralisation which is believed to be primary mineralisation. Origins of this mineralisation have not been proven at this point in time.</li> <li>Geological understanding is good and appropriate for resource estimation.</li> <li>Alternative interpretations are possible for the lithological and oxidation domain definition but are unlikely to affect the estimates.</li> <li>The complexity of overlapping mineral styles, brecciation and supergene movements plus the orebody type means there is both a strong stratabound and strong structural control to the silver grade and geological continuity of the mineralisation.</li> <li>The block model measures 1,800m in the grid north direction b 900m in the grid east direction and by 330m from surface.</li> <li>Mineralisation stretches for 1,600m of strike length with variable width but is generally &lt;800m wide. Thickness is highly variable.</li> <li>The resource is divided into two drilling domains based on th amount of drilling <i>i.e.</i> 25m spacing and 50m - 100m spacing, wit four oxidation-based sub-domains. These sub-domains are th Cover Sequence, the oxide, the transition and fresh rock zone based on a set of 3D surfaces.</li> <li>Depth to fresh rock is variable ranging from 60m to 130m below surface at approximately the 25mRL</li> </ul>
<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine</li> </ul>	<ul> <li>The resource estimates are based on 383 drill holes for 45,718m.</li> <li>The estimation of silver grades was undertaken using Multiple Indicator Kriging ("MIK") in the GS3M software with the block model loaded into the Surpac mining software for validation and resource reporting.</li> <li>MIK is considered to be an appropriate estimation technique for this style of mineralisation.</li> </ul>
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Criteria	JORC Code explanation	Commentary
	<ul> <li>production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<ul> <li>There is no correlation between silver and any other elements <i>e.g.</i> copper, lead and zinc.</li> <li>The oxidation limits were treated as soft boundaries.</li> <li>A total of 42,524 one metre silver composites were used to estimate the mineralisation. The dominant number of samples is within the main transition zone (about 56% of the total). Coefficients of variation were variable for the sub-domains with ranges of 2.1 to 2.3 for the cover sequence, 3.4 to 3.7 for the oxide, 8.3 to 9.2 for the transition (the main mineralised zone) and 10.8 to 19.5 for the fresh rock zone. This indicates skewed data with a significant outlier high grade population(s).</li> <li>MIK is designed to overcome the need for top cutting. However the high CVs and a review of the conditional statistics for the top indicator class for the oxide, transition and fresh mineralisation resulted in compromise mean values being substituted for the top indicator class for grade estimation; the compromise is the average of the mean and the median for the top indicator class for grade estimation; the compromise is the average of the three sub-domains mentioned.</li> <li>No assumptions were made regarding the recovery of any by-products.</li> <li>Variography was performed using 2m composited silver data for the mineralised bedrock. Variable nugget effects were noted with the metal variograms for the different sub-domains. The nugget effect was moderately high for the lower two sub-domains compared to the upper two and ranges in most cases were relatively short with the strike direction generally longer than the across strike direction. The indicator variograms exhibited reasonable continuity. The grade continuity patterns are expected with this type of breccia-hosted sulphide mineralisation overprinted with supergene enrichment producing oxide mineralisation.</li> <li>Drill spacing is variable between 25m or 50m. Most diamond holes are drilled grid E-W or W-E with a series of N-S oriented holes in the northern half of the deposit; RC holes</li></ul>

Criteria	JORC Code explan	ation		Commentary
Criteria	JORC Code explan	ation		<ul> <li>detailed drill spacing. The vertical dimension reflects downhole data spacing in conjunction with possible bench heights. Discretisation was set to 5x5x2 (E, N, RL respectively).</li> <li>Modelling used an expanding search pass strategy with the initial search radii based on the drill spacing increasing to take in the geometry of the mineralisation and the variography. Modelling consisted initially of one estimation run with three passes. An additional pass (Pass 4) was included to maintain consistency with the 2015 model. The minimum search used was 35m by 35m by 5m (Pass 1), expanding by 50% to 52.5m by 52.5m by 7.5m (Passes 2 &amp; 3). Pass 4 had a maximum search of 75m by 75m by 10m. The minimum number of data was 16 samples, a maximum of 48 and 4 octants for Passes 1 &amp; 2 decreasing to 8 points and 2 octants for Passes 3 and 4.</li> <li>The maximum extrapolation of the estimates is about 50m.</li> <li>An MIK model was completed for the lead mineralisation using similar methodologies. The lead data exhibited much lower coefficients of variation, around the 2 value. Experimental models varying the use of the median and mean for the top indicator class indicated very little variation in the resource estimates.</li> <li>The estimation procedure was reviewed as part of an internal H&amp;SC peer review.</li> <li>No deleterious elements or acid mine drainage has been factored in.</li> <li>A check MIK model was completed by H&amp;SC which showed consistent results with the original model. A second check model replaced the unsampled sections (-999 in the assay table) with very low values; no significant impact was observed.</li> </ul>
				<ul> <li>The final fidde block model was reviewed visually by fidde and it was concluded that the block model fairly represents the grades observed in the drill holes. H&amp;SC also validated the block model statistically using a variety of histograms and summary statistics.</li> <li>Validation confirmed the modelling strategy as acceptable with no significant issues.</li> <li>No production has taken place so no reconciliation data is available.</li> </ul>
Moisture		nages are estimated on a dry bas e method of determination of the i		<ul> <li>Tonnages are estimated on a dry weight basis; moisture not de- termined.</li> </ul>
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Criteria	JORC Code explanation	Commentary
Cut-off pa- rameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality p plied.</li> </ul>	<ul> <li>A series of resource estimates were generated for a series of silver cut-off grades.</li> <li>For the quoted resource estimates a 50g/t silver cut off was used on block centroids above the 25m RL for all sub-domains types.</li> <li>The reported silver resources are recoverable estimates.</li> <li>The reported lead grade is an average block grade from the lead MIK model.</li> <li>The cut-off grade at which the resource is quoted reflects an intended bulk-mining approach and was advised to H&amp;SC by Investigator.</li> </ul>
<i>Mining fac- tors or as- sumptions</i>	Assumptions made regarding possible mining methor mining dimensions and internal (or, if applicable, ext lution. It is always necessary as part of the process of reasonable prospects for eventual economic extract potential mining methods, but the assumptions made ing methods and parameters when estimating Miner may not always be rigorous. Where this is the case, ported with an explanation of the basis of the mining made.	<ul> <li><i>minimum</i></li> <li>H&amp;SC's understanding of a bulk mining open-pit scenario is based on information supplied by IVR.</li> <li>The assumed smallest mining unit ("SMU") (5mx5mx2.5m) is the effective minimum mining dimension for this estimate.</li> <li>Any internal dilution has been factored in with the modelling and as such is appropriate to the block size.</li> <li>The mineralisation is assumed to be amenable to open-pit mining</li> </ul>
		<ul> <li>For the purpose of demonstrating a reasonable prospect of eventual economic extraction, in September 2017, an open-pit optimisation study was undertaken. A pit wall angle of 45 degrees, mining factor 110% and grade factor 90% were assumed. A series of representative costs were included in the optimisation study which were considered appropriate at the current level of knowledge, style and size of the project A silver price of US\$17.14/oz, lead price of US\$1,165.5/t, and exchange rate of \$A1.0=US\$0.76 had been assumed. No allowance has been made for plant or capital. No further work has been undertaken.</li> <li>The collection of geotechnical samples has only commenced recently, so for the purpose of demonstrating a reasonable prospect</li> </ul>
		of eventual economic extraction, industry best practise assump- tions have been used.
Metallurgical factors or as- sumptions	<ul> <li>The basis for assumptions or predictions regarding r amenability. It is always necessary as part of the pro- mining reasonable prospects for eventual economic</li> </ul>	• Initial metallurgical testwork was completed by Core Processing
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Criteria	JORC Code explanation	Commentary
Criteria	JORC Code explanation consider potential metallurgical methods, but the assumptions re- garding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	<ul> <li>Seven metallurgical samples (composited from multiple drillholes of similar geological characteristic) were selected as representative of mineralised rock-types and grade ranges from areas within the maiden Inferred Mineral Resource envelope of the Paris Silver Deposit.</li> <li>The samples were made up of quarter diamond core and reverse-circulation percussion samples with an average weight of <i>circa</i> 130kg.</li> <li>A series of preliminary standard laboratory scale metallurgical tests were undertaken by a suitable and creditable testing laboratory, comprising; crush and grind analysis, XRD mineralogy, cyanide leaching, composite optimisation and flotation analysis.</li> <li>The preliminary metallurgical test work undertaken, reports initial silver metallurgical recoveries consistently around 75% and up to 97%, and there is a low likelihood of complex ore or refractory silver.</li> <li>2017 Metallurgy Testwork (Phase 2)</li> <li>In September 2017, Core Resources commenced the second phase of metallurgical testwork, including; comminution testwork,</li> </ul>
		<ul> <li>gravity/flotation/leach testwork and process/flowsheet design.</li> <li>Phase 2 Metallurgy:</li> <li>Metallurgical sample selection for the second phase of testwork was undertaken utilising a combination of IVR, H&amp;SC and CSA Global (geometallurgical modelling) for the selection of four test domains (oxide breccia, transitional breccia (non-Mg/Ca), transitional breccia (Mg/Ca) and fresh dolomite).</li> </ul>
		<ul> <li>Modelling and wire-framing of each geometallurgical domain oc- curred and an average indicated resource grade was estimated for each wireframe utilising the April 2017 Paris Mineral Resource wireframe provided by H&amp;SC consultants. This data was used to further select samples from each domain to produce a composite for metallurgical test work with a grade as close as possible to the estimated resource grade for that domain.</li> </ul>
		<ul> <li>Domains were composited utilising available RC coarse reject sample material retained and quarantined for this phase of work during the 2016 Paris infill drilling program which formed part of the April 2017 Mineral Resource estimate. Domain sample size varies from 77kg to 1,223Kg with a total of 2,500kg of material selected for</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>composites.</li> <li>A groundwater sample obtained from a potential processing water source was collected and supplied to Core Resource to allow a degree of metallurgical testwork to be undertaken using potentially realistic water conditions and determine what additional water treatment may be required within the process.</li> </ul>
		<ul> <li>Comminution tests completed by Core Resource on two domains (mineralised breccia and dolomite) was completed utilising ½ PQ3 diamond core from recent twin holes drilled as part of the April 2017 Mineral Resource estimate program. Core was selected based on representivity of mineralisation and lithological units. Only half core material was available for this testwork.</li> </ul>
		<ul> <li>Unconfined compressive strength tests of 1.6MPa to 51.2MPa indi- cate soft ore when compared to other ores tested by Core Re- sources.</li> </ul>
		<ul> <li>Bond abrasion tests indicate low values compared to other ores tested by Core Resources.</li> </ul>
		<ul> <li>Bond impact crushing work index test values for both domains is considered very low compared to other ores Core Resources has tested.</li> </ul>
		<ul> <li>Bond ball mill work index test results are considered moderate to hard, compared to other ores Core Resources has tested.</li> <li>Leach and Flotation:</li> </ul>
		<ul> <li>A series of standard laboratory scale leach tests completed by Core Resource on the four test domains comprising cyanide leaching at different grind sizes (P<sub>80</sub> passing 53µm, 73µm and 106µm) and cy- anide concentrate levels (2,500ppm and 4,000ppm), with samples collected and metal recovery analysis undertaken after; 6-hours, 24-hous and 48-hours.</li> </ul>
		<ul> <li>Core Resource completed a series of standard laboratory scale flo- tation tests on the four test domains comprising flotation analysis at different grind sizes (P<sub>80</sub> passing 53µm, 73µm and 106µm), and samples collected in 2 minute intervals until active frothing had stopped.</li> </ul>
		<ul> <li>Variations to the testing protocol including hydrogen peroxide and lead nitrate pre-conditioning ahead of cyanide leach tests as a method to test possible recovery improvements.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>Combined leach and flotation test scenarios were also undertaken on the main domain types; transitional breccia (non-Mg/Ca), transi- tional breccia (Mg/Ca) and fresh dolomite. The flotation products (concentrate and tails) were leached. In addition but not limited to various combinations of leaching of the flotation tails, ultra-fine grinding (to P<sub>80</sub> of 10µm) of the tails then leached and ultra-fine grinding of the flotation concentrate before leaching. Assaying was undertaken after each test; post flotation on concentrate and tails, post leaching on concentrate and tails. This allowed the reconcili- ation of grades, metal and mass deportment.</li> </ul>
		<ul> <li>Gravity Separation:</li> <li>A series of standard laboratory scale gravity separation tests were completed by Core Resource on the test domains at P<sub>80</sub> 425µm and different gravity separation parameters, <i>i.e.</i> allowing different material to be separated according to specific gravity of material.</li> <li>Tests were undertaken on the Knelson product (Knelson concentrate), including additional separation tests <i>i.e.</i> heavy liquid separation ("HLS") at different liquid densities to extract heavier lead product. In addition the HLS and Knelson tails were combined, ground to P<sub>80</sub> 53µm, and cyanide Leach tests undertaken to test the possible extract the silver.</li> </ul>
Environmen- tal factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	<ul> <li>Flora and Fauna:</li> <li>Comprehensive baseline flora fauna studies identified no controlled species present in the area which might be disturbed by potential mine development.</li> <li>Geography:</li> <li>The area lies within flat terrain with no water courses in the general vicinity.</li> <li>The area is covered with sparse mallee vegetation typical of eastern Eyre Peninsula pastoral lease environment in South Australia.</li> <li>Groundwater:</li> <li>A high level assessment of groundwater potential for supply and use in processing and impacts has been completed by Wallbridge, Gilbert &amp; Aztec ("WGA") hydrological consultants as part of ongoing prefeasibility study work.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>The study focussed on an identified Paleochannel (Hector) located 10km to 15km east of the Paris deposit. Geometric modelling of the paleochannel was undertaken using available existing drill data in addition to four hydrological investigation holes drilled in 2017. This resulted in assessment of three zones within the paleochannel aquifer with a potential water storage of 60 gigalitres estimated. The study assumed hydrological connectivity of the three zones.</li> <li>Salinity measurements from the paleochannel ranged from 29,500mg/L to 41,790mg/L which is above levels appropriate for livestock (0 to 5,000mg/L) as defined by the National Water Quality Management Strategy (2000) (NWQMS). Standing water level varied from 3m to 16m down hole. Low order initial calculation of aquifer through flow estimate of 22 megalitres per annum which supports recharge of any water use. It should be noted that impacts on slug test measurements to determine the transmissivity including, narrow 42mm casing, difficulty in casing sand interval using method employed in test holes and rapid oscillation at start of tests has resulted in WGA indicating that transmissivity is likely a lower estimate (through flow = transmissivity x aquifer width x potentiometric surface gradient).</li> <li>Impact on existing groundwater users was considered by WGA to be negligible, with nearest operating stock watering wells completed in fractured bedrock and located some 4km west of the paleochannel and approximately 9km from the Paris deposit. Baseline measurement of seasonal variation in water quality has commenced by sampling nearby registered wells and paleochannel investigative holes on a 3 monthly basis.</li> <li>45 litres of water obtained from the paleochannel was supplied to Core Resources for use during metallurgical testwork in order to identify any potential processing changes due to water quality. <i>Mining</i>:</li> </ul>
		<ul> <li>To date no consideration has been given to ore stockpiles, waste rock or process residue disposal options, due to the early stage of the project.</li> </ul>
		<ul> <li>Waste characterisation analysis is currently being undertaken.</li> <li>It is assumed that any potentially acid forming waste rock would be able to be contained as part of mining operations by appropriate design and use of carbonate basement rocks within any mine plan.</li> </ul>

Criteria	JORC Code explan	ation	(	Commentary
			•	No environmental impact studies on the effects of open-pit minin have been completed by the IVR.
Bulk density	<ul> <li>sumptions. If det frequency of the ness of the samp</li> <li>The bulk density methods that add etc), moisture an within the deposit</li> <li>Discuss assump</li> </ul>	for bulk material must have been equately account for void spaces d differences between rock and a	er wet or dry, the and representative- measured by (vugs, porosity, Iteration zones ed in the evalua-	Density data comprises 11,118 samples (using the immersion in water Archimedes method) for both mineralisation and waste rock Check measurements on 51 transition samples using the sealed in wax technique with the Archimedes method, indicated minor overstatement of 5-7% of density in the original data (4410 samples). Too few data points for the other oxide zones are present to draw any conclusions. Check density measurements were completed for different rock types from the 2016 diamond drillholes. The technique employed weighing the core trays, measuring core runs in the trays and using callipers to measurement core diameter. Resulting density values indicated slightly lower values (~5%) compared to the non-waxed single pieces of core used previously for generating default values. A new series of default density values for mineral sub-domains was supplied by IVR that were derived from the weighed core trays samples and the check sealed in wax samples: 1.96t/m <sup>3</sup> for cover material, 1.97t/m <sup>3</sup> for oxide, 2.16t/m <sup>3</sup> for transition and 2.78t/m <sup>3</sup> for fresh rock. Allocation of density grades to the blocks is based on the oxidation surfaces and their partial percent volume adjustments. A check Ordinary Kriged model for the original density value (~5%) when compared with the use of the default values.
Classification	<ul> <li>The basis for the classification of the Mineral Resources into val confidence categories.</li> <li>Whether appropriate account has been taken of all relevant fact (ie relative confidence in tonnage/grade estimations, reliability of put data, confidence in continuity of geology and metal values, or ity, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person view of the deposit.</li> </ul>		I relevant factors os, reliability of in- netal values, qual- petent Person's	Allocation of the resource classification to the block was based of the search passes used to interpolate the block grades. Pass 1 = Indicated, Passes 2, 3 & 4 = Inferred. Classification of the Mineral Resources has been based primaril on the drillhole spacing and the variogram modelling <i>i.e.</i> the sam ple, spacing and the improved grade continuity, with significan positive inputs from the sampling methods and procedures, the amount of density data, the QA/QC outcomes, good geological un derstanding, detailed geological interpretation and sensible minin depths. The classification appropriately reflects the Competent Person' view of the deposit.
Investigator Resources Ltd Tel: + 61 7 3870 0357		PO Box 3235 Norwood SA 5	D67 ASX code: IVR Page 31	
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Criteria	JORC Code explanation	Commentary
Audits or re- views	The results of any audits or reviews of Mineral Resource estimates.	<ul> <li>No audits of the new resource estimates have been completed.</li> <li>The estimation procedure was reviewed as part of an internal H&amp;SC peer review.</li> <li>A range of check MIK models was produced by H&amp;SC. These models provided a measure of the robustness of the resource estimates and the sensitivity to the high grades.</li> </ul>
Discussion of relative accu- racy/ confi- dence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul> <li>The relative accuracy and confidence level in the Mineral Resource estimates are considered to be in line with the generally accepted accuracy and confidence of the nominated Mineral Resource categories. This has been determined on a qualitative, rather than quantitative, basis, and is based on the Competent Person's experience with similar deposits.</li> <li>The complex geological nature of the deposit and the relatively sporadic distribution of high grade assays and the demonstrations of the grade continuity lend themselves to a moderate level of confidence in the resource estimates. The infill drilling on 25m spacing has allowed for an improvement in the grade continuity and hence an upgrading of the resource quality.</li> <li>Without doubt the resource estimates are very sensitive to the high silver grades. H&amp;SC has attempted to deal with this by using a non-linear grade interpolation technique, Multiple Indicator Kriging, and judicious modification to the parameters and values used in the grade interpolation process. Fresh rock zones below the 25mRL have been omitted from the estimates due to a lack of confidence in the interpolated grades and their distributions, both a function of the geological uncertainty associated with process of the mineral formation.</li> <li>The Mineral Resource estimates are considered to be reasonably accurate globally, but there is some uncertainty in the local estimates due to the current drillhole spacing.</li> <li>No mining of the deposit has taken place so no production data is available for comparison.</li> </ul>