7 June 2021

Metallurgical Testwork Improves Paris Silver Recoveries

Silver recovery improved from 65% to 72% within largest domain of Paris resource

Highlights

- Metallurgical test work has improved silver recoveries from main mineralisation type within the Paris Silver Deposit.
- Weighted average silver recovery of 78% across the Resource, represents a 4% improvement over the 2018 testwork.
- Metallurgical testwork targeted improved silver recoveries from the Breccia Transitional ("BT") metallurgical domain component of Paris Mineral Resource.
- BT domain material comprises 54% of the total 2017 Paris Mineral Resource.
- Revised grinding and cyanide leach testwork improved recovery of silver in the BT domain from 65% to 72%.
- Additional potential to increase recoveries with further optimisation of flotation tail cyanide leach in future testwork programs.

Investigator Resources Limited (ASX: IVR, "Investigator" or the "Company") is pleased to provide this release reporting on the results from metallurgical testwork that has been undertaken in relation to its 100% owned Paris Silver Project in South Australia.

The Paris Silver Project, located 70kms north of the rural township of Kimba on South Australia's Eyre Peninsula, is approximately 6 hours by road from Adelaide.

The highest-grade undeveloped primary silver project in Australia, Paris hosts a 2012 JORC resource estimate of 9.3 Mt @ 139g/t silver and 0.6% lead for 42 Moz contained silver and 55 kt contained lead[1]. The Paris Mineral Resource is currently being recalculated following an infill drill campaign in late 2020.

Paris is a shallow, high-grade silver deposit amenable to open pit mining with an updated resource estimate due to be finalised within weeks. In conjunction with this metallurgical testwork program, mine design and optimisation will culminate in the delivery of a Pre-Feasibility Study in July 2021.

Commenting on the results reported here from the Paris Silver Project metallurgical testwork, Investigator's Managing Director, Andrew McIlwain said:

"We are very encouraged by the improved recoveries achieved in the met test program that focussed on the lower recovery material from the Breccia Transitional (or BT) domain.

"Previous testwork resulted in a 65% recovery of silver from this material and, with the BT domain comprising 54% of the resource, a clear opportunity existed to shift the economics of the project through improving the recovery of this largest metallurgical component of the resource.

"This recent round of testwork was initially performed on material available from the 2018 metallurgical program and subsequently on a fresh BT domain sample collected from the 2020 infill drill program.

"The team was set a target of improving silver recovery from the BT domain by 5%. By lifting recoveries from 65% to 72% with processes that can be readily adopted within a conventional operating process plant flowsheet, they have delivered a significant improvement to the path forward for the Paris Silver Project.

1 - As reported in ASX announcement of 19 April 2017.

"I am particularly encouraged that there are opportunities that may be explored to further incrementally improve metal recoveries within both the BT, and other metallurgical domains.

"Importantly, the process flowsheet developed for this testwork is complementary to that considered for treatment of the balance of the Mineral Resource.

"With the revised Paris Mineral Resource estimate anticipated to be available for ASX review in June, completion of this metallurgical testwork provides another vital component in progressing the Paris Silver Project PFS".

Introduction

As part of the Paris Silver Project Pre-Feasibility Study, Investigator has completed two additional metallurgical testwork programs focussed on material from the Breccia Transitional ("BT") domain of the Paris Silver Project's mineral resource. This testwork was designed to complement and build on the metallurgical results achieved during the Scoping Study phase of the Paris Silver Project in 2018.

The results from this comprehensive testwork program are discussed in detail later in this release however, as shown in **Table 1** below, silver recovery of 72% has been achieved from the fresh BT domain material.

Composite	2021 Silver recovery @ grind P80 of 75µm	
	Direct Cyanide leach only	Gravity, deslime, flotation and leach
BT1	62%	67%
BT1A	66%	72%

Table 1: *Comparison of silver recovery by gravity separation, desliming, flotation and cyanide leaching compared to direct whole ore cyanidation for BT domain composite samples.*

Preliminary metallurgical testing completed in 2018 showed silver leaching recoveries by conventional cyanidation ranged from 65% to 89% across the various geometallurgical domains of the resource (ASX: 7 May 2018). Results from the lower end of the recovery range were from the BT geometallurgical domain, which comprises approximately 54% of the Paris Silver Mineral Resource, as shown in **Table 2** below. The logical opportunity to significantly improve the Project's overall silver recovery was to address the lower recovery from the largest component of the resource. The test program was designed to identify and verify improved recovery processes for the lower performing BT domain material.

	Host Domain	Estimated % of Resource	Leach silver recoveries (2018)
Shallow	Oxide	5%	8%
	Breccia Transitional ("BT") - No Mg/Ca	54%	65%
	Breccia Transitional ("BTM") - Mg/Ca	32%	85%
Deeper	Dolomite	9%	89%

Table 2: *Summary of domain distribution and silver metallurgical recoveries from 2018 testwork.*

Additional metallurgical investigations for the PFS

Background

A key component of the work program identified to complete the Paris Silver Project PFS, and supporting the successful capital raising in August 2020, was the continuation of metallurgical studies, with improvements in silver recovery seen as a key metric to positively influence the Project's financial outcomes within the PFS study. Continuing from the metallurgical testwork undertaken by Core Process Engineering Ltd (Core" or "Core Engineering") in 2018[2], which included focus on recoveries from the various geometallurgical domains, Investigator commenced metallurgical optimisation studies in late 2020.

Two composite samples from the BT domain were utilised in the 2021 metallurgical program. The first sample (BT1) was prepared from homogenised composite samples retained from Core's 2018 preliminary metallurgical testing and the second sample (BT1A) was collected and composited from the Paris infill drill program completed in 2020. This BT1A sample is considered a "fresh" (un-oxidised) metallurgical composite sample, and more representative of the material that will be mined, than the aged BT1 sample.

The metallurgical testing program was undertaken in two stages at ALS' Metallurgy Laboratory ("ALS"), located in Burnie Tasmania, under the supervision of Investigator's metallurgical consultant, MinAssist Pty Ltd.

The development approach to improve the metallurgical recovery was to first identify individual silver minerals within the BT domain by diagnostic leaching and mineralogical characterisation. It is important to note that silver mineralisation can consist of numerous silver minerals, as compared to gold for example, which generally occurs in only one form.

This characterisation process identified silver hosted in several forms, dominantly as native silver and/or acanthite (a silver sulphide) with quartz, and lesser quantities of jalpaite ($CuAgS_2$), chlorargyrite ($AgCl$),

2 - As reported in ASX announcement of 7 May 2018.

iodargyrite (AgI), argentopyrite (FeAgS). The relative proportions of the silver host minerals vary throughout the resource. These silver mineral particles were often identified at less than 30 microns (30 millionths of 1m) in size, with a component less than 10 microns. Understanding this size distribution assisted with determining recovery opportunities and processes targeting liberation of silver minerals from their host particles were prioritised.

The image in **Figure 1** below, is an example of the silver mineralisation in the BT1A composite identified through the mineralogical characterisation process. Intergrowths of silver sulphide were associated with silver minerals, chlorargyrite, argentopyrite and iodargyrite. Fine (less than 5 micron) silver intergrowths can be seen through the porous quartz grain (quartz seen as black in the upper image and pink in the lower).

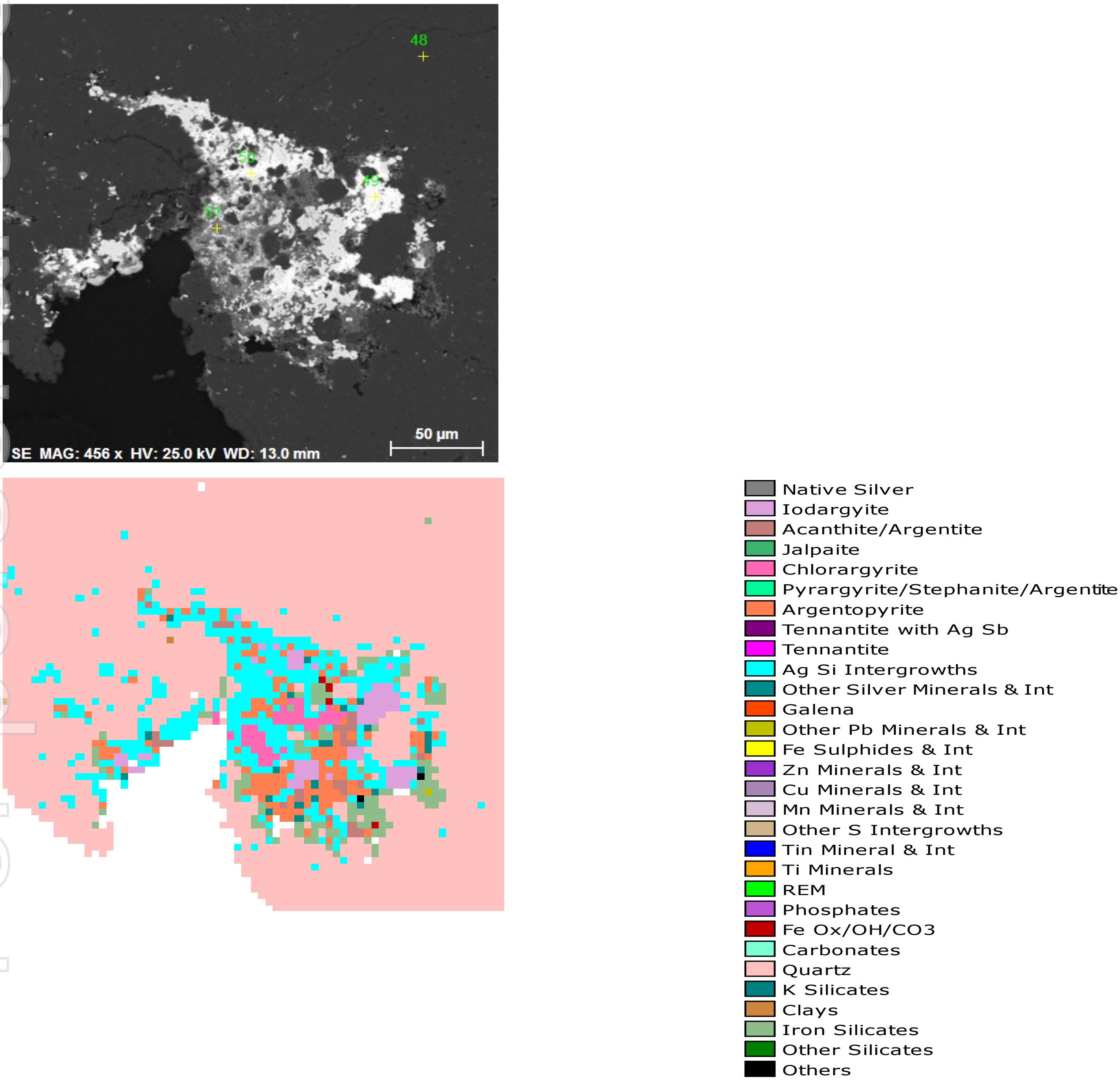


Figure 1: *Back Scatter Electron micrograph (top) and QEMSCAN false colour particle image (lower) of silver hosted in quartz particle for BT1A composite head sample from analysis completed by Bureau Veritas Mineralogy, Adelaide.*

Using this characterisation of the silver minerals present in the BT domain, the recovery process was tailored to target the silver in each component. A diagrammatic summary of the main test work program stages is shown in **Figure 2** below.

The 2021 metallurgical testing program

The main tests included:

1. cyanide leaching of whole composite sample at different grind sizes; and
2. sequential upgrade of silver minerals by gravity concentration, desliming and flotation, followed by cyanidation of products.

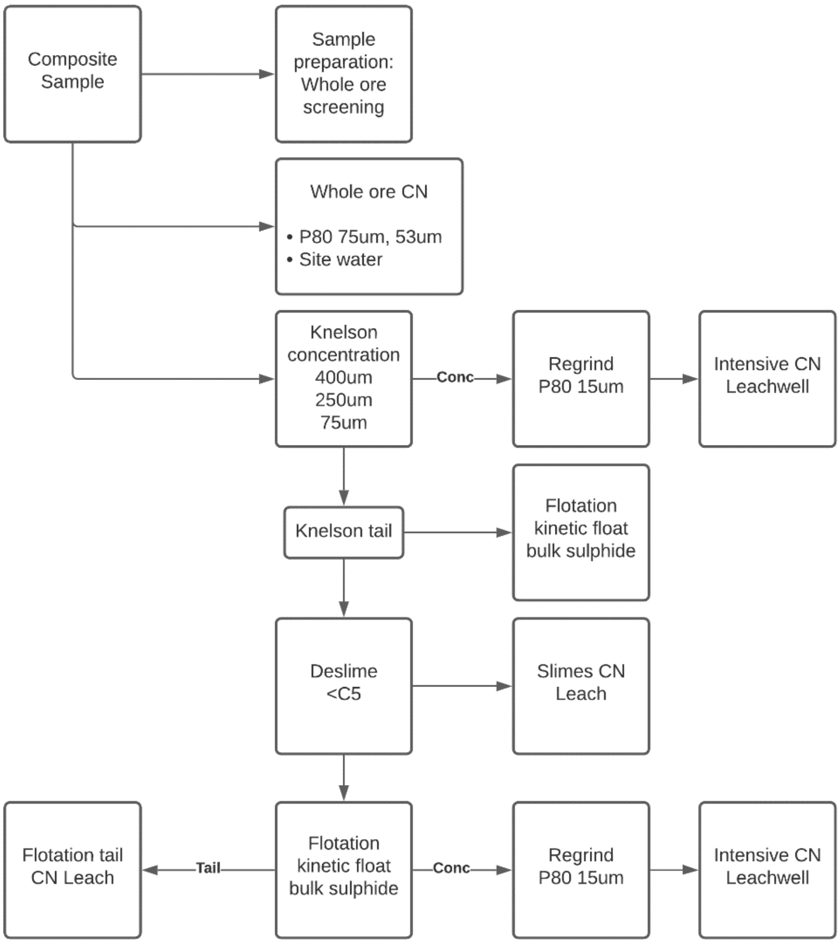


Figure 2: *BT1A composite silver recovery test work program flow sheet undertaken by ALS, Burnie.*

1. Cyanide leaching of whole composite sample at different grind sizes

The baseline cyanide leach recovery of silver for the composites investigated by ALS in 2021 and by Core in 2018 are summarised in **Table 3** below. These demonstrated a range of 65% to 69% silver recovery at a grind P80 of 53µm. As anticipated, the ALS recoveries for both BT1 and BT1A samples were lower when subjected to lesser grinding resulting in larger particle sizing (75µm), owing to the fineness of silver mineralisation.

Importantly, the Core and ALS results for the 53µm grind tests of BT1 composite are comparable, providing confidence that the testing regimes were like for like.

Composite	Program	Silver recovery by direct cyanide leach	
		Grind P80 of 75µm	Grind P80 of 53µm
BT1	Core Engineering (2018)	-	65%
BT1	ALS Metallurgy (2021)	62%	65%
BT1A	ALS Metallurgy (2021)	66%	69%

Table 3: *Summary of silver cyanide leach recovery for Breccia Transitional ("BT") domain across metallurgical programs at various grind sizes.*

2. Sequential upgrade of silver minerals by gravity concentration, desliming and flotation, followed by cyanidation of products

To further understand the behaviour of the silver within the BT domain, a Knelson gravity concentrator was used to separate the silver associated with dense galena and quartz particles, where the concentration of silver and lead presents an increase in relative density. Results from the Knelson gravity concentrator showed recovery of 12% of the silver to 5.1% of the mass for BT1 composite and 12.1% of silver to 3.1% of the mass for BT1A composite. The upgraded gravity concentrate (386 g/t Ag for BT1 and 688 g/t Ag for BT1A) was suitable for regrinding to liberate silver for recovery by cyanide leaching.

Desliming is a process where the very fine component (particles of less than 10 micron) of a processing stream is separated. Desliming at 10 micron was undertaken on the gravity tail material from the Knelson concentrator to separate the fine silver minerals not recovered through the gravity separation process detailed above. This resulted in 49.7% of silver presenting in 50.3% of the mass for BT1 and 33% of the silver presenting to 39% of the mass for BT1A. The silver minerals recovered with the slimes fraction were generally liberated and more amenable to recovery by cyanide leaching. Whilst the BT1A sample is considered a "fresh" (un-oxidised) metallurgical composite sample in comparison to the aged BT1 sample, it was noted that the fresh BT1A sample carried less hydrous clays than the BT1 sample.

Deslimed material was then concentrated through a bulk sulphide flotation test to recover the remaining silver associated with pyrite, and other sulphide minerals. This resulted in concentration of 37% of silver in gravity tail into 12.5% of the mass for BT1 and 31% of the silver in deslimed gravity tail into 7.3% of the mass for BT1A. The upgraded flotation concentrates, containing 473 g/t Ag for BT1 and 665 g/t Ag for BT1A, were suitable for regrinding to liberate silver for recovery by cyanide leaching.

Concentrates, slimes and flotation tail products were leached in tailored cyanide leaches, targeting silver recovery.

Both concentrates from the gravity and flotation tests were combined and reground to P100 of 15 µm, then leached in cyanide. Final cyanide silver recovery from the combined reground concentrates was 85% for the BT1 composite and 92% for the BT1A composite.

The slimes fraction was leached in cyanide separately, returning 86% silver recovery for the BT1 and 95% for the BT1A composites. Each of these results demonstrated that effective liberation of silver minerals could be achieved at particle size less than ~15 micron.

Finally, the flotation tail was leached to recover any remaining silver hosted in quartz with 36% of residual silver recovered. Further specific and targeted diagnostic leaching of the flotation tail indicated that 49% of residual silver minerals were liberated, presenting a significant opportunity to optimise the flotation tail cyanide leach in future test work programs.

The typical associations of silver in the flotation tail leach residue can be seen in **Figure 3**, below. This showed fine (<1 to 5 micron) grains of silver minerals locked in porous quartz particles. The porous nature of the host quartz presents an opportunity to increase the accessibility of leach solutions to the silver minerals and warrants further optimisation.

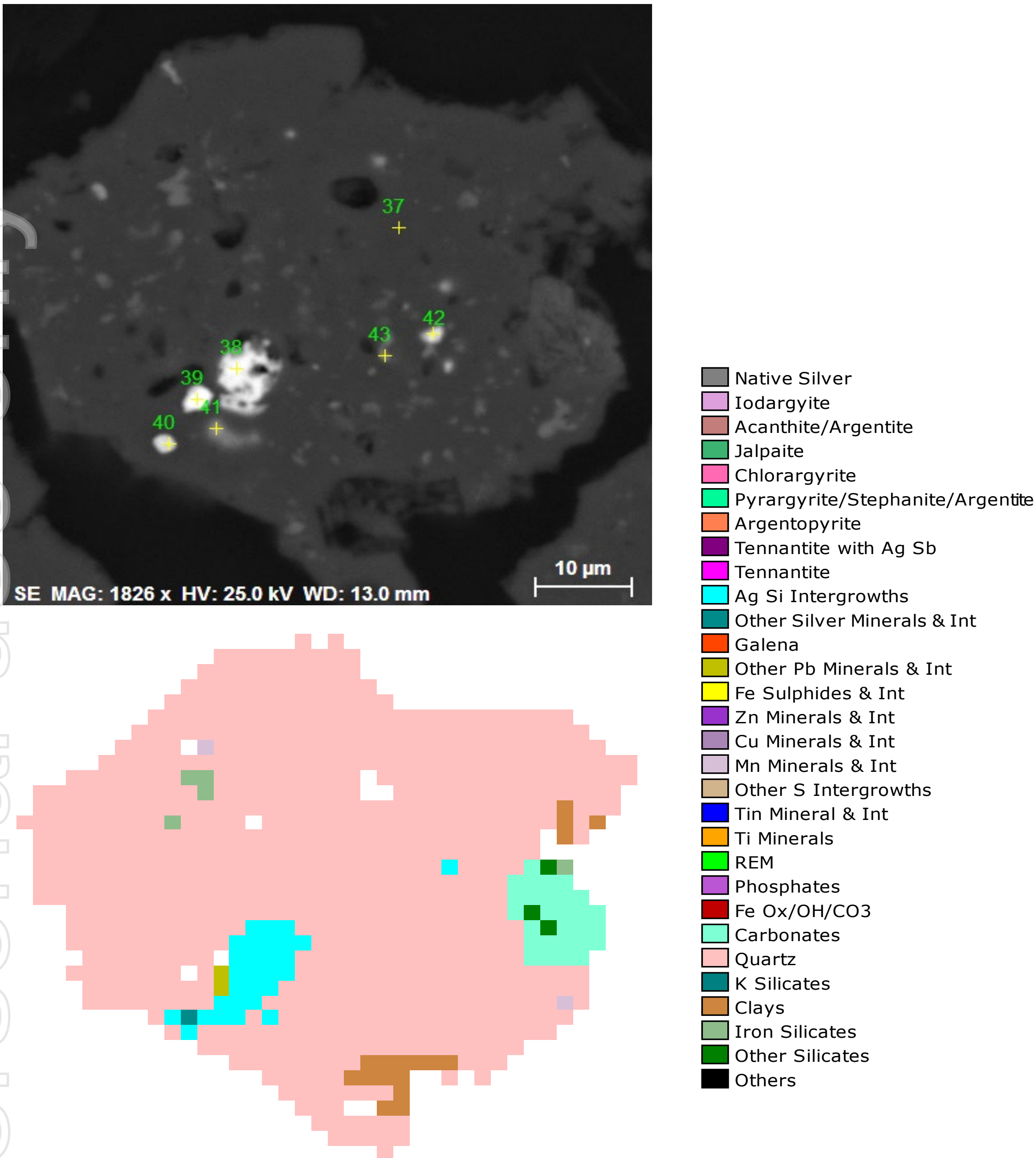


Figure 3: *Back Scatter Electron micrograph (top) and QEMSCAN false colour particle image (lower) of silver hosted in quartz particle for BT1A flotation tail leach residue from analysis completed by Bureau Veritas Mineralogy, Adelaide.*

Summary of 2021 Metallurgical Testwork Results

The total combined silver recovery achieved through at a grind P80 of 75µm by gravity, desliming, flotation and leaching of the BT1 and BT1A composites was 67% and 72% respectively. This outcome is a significant improvement when compared with the direct cyanide leaching testwork, with 5% and 6% improvements in total silver recovery achieved for the BT1 and BT1A composites respectively (at a comparable grind size of P80 of 75µm), as shown in **Table 4** below.

Composite	2021 Silver recovery @ grind P80 of 75µm	
	Direct cyanide leach only	Gravity, deslime, flotation and leach
BT1	62%	67%
BT1A	66%	72%

Table 4: *Comparison of silver recovery by gravity separation, desliming, flotation and cyanide leaching compared to direct whole ore cyanidation for Breccia Transitional domain (BT) composite samples. Test work completed at ALS, Burnie.*

The metallurgical test program, through conventional process technologies, delivered improvement in silver recoveries from the BT domain material of 5% and 6% from the BT1 and BT1A composites respectively. When applied to the 2017 Paris Silver Project Mineral Resource, the enhancement of recovery for the BT domain – the largest single component of the resource and with lowest recovery - increases the average recovery for the Paris Silver Project from 74% to 78%.

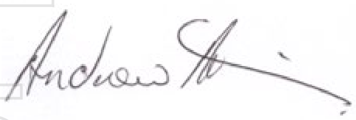
Conclusion

The metallurgical program undertaken as part of the Paris Silver Project PFS has delivered encouraging results which include:

- Improved recoveries utilising conventional circuity that will directly impact project economics; and
- Further, incremental improvement in silver recoveries which may provide opportunities to enhance the economics of the Paris Silver Project.

These results provide Investigator with sufficient confidence in the metallurgical response of the Breccia Transitional domain to progress the development to PFS.

For and on behalf of the board.



Andrew McIlwain
Managing Director

For more information:

Andrew McIlwain
Managing Director
Investigator Resources Ltd
+ 61 (0) 8 7325 2222
amcilwain@investres.com.au

Peter Taylor
Media & Investor Relations
NWR Communications
+ 61 (0) 412 036 231
peter@nwrcommunications.com.au

About Investigator Resources

Investigator Resources Limited (ASX: IVR) is a metals explorer with a focus on the opportunities for silver-lead, copper-gold and other metal discoveries. Investors are encouraged to stay up to date with Investigator's news and announcements by registering their interest here: https://investres.com.au/enews-updates/

Capital Structure (as at 31 May 2021)

Shares on issue	1,323,946,607
Unlisted Options	28,000,000
Performance Rights	10,000,000
Top 20 shareholders	30.61%
Total number of shareholders	5,542

Directors & Management

Mr Kevin Wilson	Non-Exec. Chairman
Mr Andrew McIlwain	Managing Director
Mr Andrew Shearer	Non-Exec. Director
Ms Melanie Leydin	CFO & Joint Company Secretary
Ms Anita Addorisio	Joint Company Secretary

Competent Person Statement

The information in this announcement relating to exploration results is based on information compiled by Mr. Jason Murray who is a full-time employee of the company. Mr. Murray is a member of the Australian Institute of Geoscientists. Mr. Murray 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. Murray 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 relating to metallurgical results is based on information compiled by Dr. William Goodall who is a consultant to the company. Dr. Goodall is a member of the Australian Institute of Mining and Metallurgy (AusIMM) and a Chartered Professional (Metallurgy) with the Australian Institute of Mining and Metallurgy. Dr. Goodall has sufficient experience of relevance to the commodities and process flow sheets 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. Dr. Goodall 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's website www.investres.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

APPENDIX

APPENDIX 1: JORC Code, 2012 Edition – Table 1

The following section is provided to ensure compliance with the JORC (2012) requirements for the reporting of the metallurgical testwork results at the Paris Silver Deposit in the ASX release "**Metallurgical Testwork Improves Paris Silver Recoveries**" on 7 June March 2021.

Assessment and Reporting Criteria Table Mineral Resource – 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 (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'RC drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• 2020 metallurgical sample media was obtained from 2020 RC drilling sampled at nominal 1m intervals down hole. • 2018 remnant metallurgical sample was obtained from 2017 RC drilling sampled at nominal 1m intervals down hole and as described in ASX release dated 7 May 2018. • All metallurgical sample material was selected on the basis of its multi-element geometallurgical composition and presence of silver mineralisation at a grade that was representative of the Paris silver deposit average grade, including allowance for some dilution material where appropriate to simulate "mining conditions". • 2020 sample media used in metallurgical test work was supplied to ALS Laboratories ("ALS") in individual 1m sample volumes with hole number and metre interval recorded. Subsequent compositing was undertaken by ALS. • Composite sample material used in 2018 was material retained from the 2017 metallurgical sample composites, with lab assay analysis checks undertaken to confirm representivity. • Material was in the form of riffle split 1m sample material left over from original drill hole assay. • Drill intervals had visual moisture content and volume recorded ie Dry, Moist, Wet and Normal, Low, Excessive. • Drill intervals had weight of sample recorded.

Criteria	JORC Code explanation	Commentary
Drilling techniques	• *Drill type (eg core, RC, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• RC drilling completed as part of the resource infill drilling utilised 5 1/2 inch face sampling percussion hammers and were drilled in a vertical orientation. • Drilling did not utilise a rig attached splitter due to the potential for cross contamination should balling clay or similar intervals be intersected. • Drillers supplied sample on a per metre basis into large format numbered sample bags.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• Whole bag weights were recorded for all 1m intervals. • Wet or dry sample intervals were also recorded. • Bag weights for designated wet samples were taken after drying of intervals, with the majority of samples in the program having a dry weight recovery value. Moist but splittable samples were weighed at the time of splitting. • QA/QC analysis of RC recovery versus grade based upon 32,967 samples found that 94.5% of bag weights were within +/- 2 Standard Deviations (2SD) of the mean. Plots of silver assay versus bag weight showed no discernible bias between recovery and grade in 2016 and 2020 infill drill programs. • RC holes with poor recovery in target zones are identified and flagged for potential DH redrill. • Observed poor and variable recovery is flagged in the sampling database. Wet or moist samples are also flagged in the sampling database. • Selective twinning of a representative number of holes with diamond drilling is undertaken to support recovery/grade operations and appropriateness of method. • DH twins to test for sample representivity and appropriateness were drilled within 2m of any RC collar. • DH recovery was logged by drillers and verified and checked by geologists as part of logging.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	• Entire holes are logged comprehensively and photographed on site. • Qualitative logging includes lithology, colour, mineralogy, veining type and percentage, sulphide content and percentage, description, marker horizons, weathering, texture, alteration, mineralization, and mineral percentage.

Criteria	JORC Code explanation	Commentary
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Quantitative logging includes magnetic susceptibility. Portable XRF is utilised on an informal basis to identify zones of mineralisation and mineralogical components to assist in lithological logging but not relied upon for reporting of mineralisation in this release.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• RC drilling was sampled at nominal 1m intervals for use in metallurgical testwork. • Intervals used for metallurgical test work were selected based on their geometallurgical domain in this program, being Breccia Transitional ("BT") or Breccia Transitional with Magnesium ("BTM"). • Both BT and BTM geometallurgical domains were identified in 2017 geometallurgical studies on the Paris deposit which was undertaken by CSA Global. • Studies on 2017 metallurgical material on both domains was undertaken by identification of stored material from each domain that was returned to Investigator Resources Limited ("Investigator") from Core Process Engineering Ltd (Core" or "Core Engineering") at the conclusion of metallurgical studies in 2018. This material was stored in individual steel drums with the domain identified on drum and storage bags containing the sample. • Material from 2017 was in a composited and homogenised state as prepared by Core at the time of their work and documented in their reporting. • Sub sample "grab" samples of each bag of 2017 BT or BTM metallurgical material was assayed to confirm silver/lead head grade and multi element composition was similar to that reported in the 2018 metallurgical report by Core and confirmed as accurate. • Cyanide leach testing by ALS on 2017 BT material confirmed similar silver recovery levels to Core. • Sub sampling of 2020 BT and BTM material used both geometallurgical domain boundaries and intervals of mineralised RC material that was retained on site post splitting for resource assay analysis. Average grade was estimated based on weighted average of bags sampled and their individual grades and approximated out at 208 g/t silver for BT domain material and 212 g/t silver for BTM domain material and dispatched to ALS for composite selection and homogenisation.

Criteria	JORC Code explanation	Commentary
		• Sample sizes for both domains are considered appropriate for test-work undertaken. **<u>Laboratory sample preparation</u>** • Subsampling techniques are undertaken in line with standard operating practices in order to ensure no bias. • QA checks of the laboratory includes re-split and analysis of a selection of samples from coarse reject material and pulp reject material in order to determine if bias at laboratory was present. • The nature, quality and appropriateness of the sampling technique is considered appropriate for the grainsize and type of mineralisation and confidence level being attributed to the results presented.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.*	• A certified and accredited global laboratory (ALS) was used for all assays. • Samples were analysed using methods 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 Ag and Pb. • Over-range samples (>100ppm Ag, >1% Pb) were re-assayed using ME-OG62, 4 acid digest with ICP-AES finish to 1,500ppm Ag and 20% Pb. • Silver results greater than 1,500ppm are re assayed by ME-OG62H using 4 acid digest with ICP-AES finish to 3,000ppm Ag. • If samples remain over-range after this method, then GRA-21 is used for Ag (0.1 – 1.0% Ag). ALS have recently closed their Australian laboratory capable of undertaking the method of analysis and any GRA21 analyses are required to be undertaken at their Vancouver, Canada facility. • Samples with silver greater than 1% are analysed by Ag-CON01 for Ag (0.7 – 995,000ppm). • Internal certified laboratory QA/QC is undertaken by ALS and results are monitored by Investigator. • Umpire check analysis with an alternate NATA accredited laboratory for a subset of assays from the current program is in the process of

Criteria	JORC Code explanation	Commentary
	• *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	being completed. **QA/QC Summary** • Records of QA/QC techniques undertaken during each drilling program are retained by Investigator. • Certified reference standards including blanks, were randomly selected and inserted into the sampling sequence (1 in 25 samples) for all RC drilling where 1m sample intervals were assayed. • Field duplicate samples were routinely taken on every 20th sample for all RC drilling. • No significant analytical biases have been detected in the results presented. • Geochemical analysis of metallurgical sample composites were undertaken to confirm composition and suitability for metallurgical testwork and gross compositional similarity between 2017 and 2021 geometallurgical domains. • Mineralogical analysis of metallurgical composites was compared to confirm applicability to geometallurgical domains.
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 entry procedures, data verification, data storage (physical and electronic) protocols.*	• No reporting of new assay data outside of confirmation of geometallurgical grade and composition data. • Twinned holes for metallurgical testwork was not undertaken. • Records of sample intervals selected and utilised to produce representative metallurgical composite samples for testwork are retained by Investigator.

Criteria	JORC Code explanation	Commentary
	• *Discuss any adjustment to assay data.*	
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	**<u>Collar co-ordinate surveys</u>** • All coordinates are recorded in GDA 94 MGA Zone 53. • Holes have been field located utilising hand held GPS (accuracy of approximately +/- 4m) and orthoimagery. Prior to utilisation of drilling data in any future resource estimation collars are located utilising differential GPS with a typical accuracy of +/-10cm – holes in this release have not had this detailed survey undertaken at the time of reporting results. • Topographic control uses a high resolution DTM generated by an AeroMetrex 28cm survey. • A local grid conversion was applied to all data in order to simplify and be consistent with previous resource estimation processes. This transformation was completed using SURPAC software by HS&C and corroborated by using Micromine by Investigator. This resulted in a clockwise rotation from MGA to local of 40 degrees using a two-common point transformation. **<u>Down hole surveys</u>** • Drillholes were drilled in a vertical orientation (-90°) and had collar orientation surveyed at 6m and an end of hole orientation surveyed. Due to the vertical hole orientation, only dip was recorded. Holes are generally less than 120m deep and as such significant deviation is not expected.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Drill hole spacing is variable over the approximate 1,600m x 800m area delineated as the Paris Project. • The current program of drilling was undertaken to infill coverage to a nominal 25m x 25m spacing which was established during the 2017 Paris Resource Estimation as an appropriate spacing for establishing geological and grade continuity for resource estimation. • Field sample compositing was not undertaken. • Metallurgical test material was selected based on returned assays at the time of sampling from drillholes completed as part of the 2020 infill resource drill program. Where possible material from northern and southern infill areas was used, however a lower population of assays

Criteria	JORC Code explanation	Commentary
		returned from the southern domain drilled at Paris had been returned such that there was less material available at the time for sampling. • Selection from the northern domain is believed to be similar and proximal, albeit spatially separate from the 2017 data.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• The majority of the known mineralisation is interpreted to occur in both primary and alteration controlled horizontal to sub-horizontal layers. The drilling orientations are considered appropriate to test these orientations. • A minority of the mineralisation is interpreted to occur in sub-vertical fault breccia and replaced structures. These orientations may be inadequately represented in the existing drilling. • The main strike of the mineralisation is towards 320 degrees (true). Drill sections have been aligned orthogonal to the main interpreted strike direction. • Declination for all drilling as part of this program of work was -90 degrees. • Previous drill programs conducted from 2012 to 2014 included drilling at -60degree declination along section and orthogonal to section to test target features at the time. This prior work has confirmed the suitability of a dominant -90degree declination for programs at Paris.
Sample security	• *The measures taken to ensure sample security.*	• Samples were collected at rig site in individually numbered calico sample bags and tied and placed into poly-weave bags in groups of approximately 5 samples and cable tied to prevent access. • Samples were dispatched to ALS in Adelaide by Investigator personnel or independent contractors. Records of each batch dispatched included the sample numbers sent, date and the name of the person transporting each batch. • Investigator personnel provided, separate to the sample dispatch a submission sheet detailing the sample numbers in the dispatch and analytical procedures. • ALS conducted an audit of samples received to confirm correct numbers per the submission sheet provided. • Assay pulps are returned to Investigator from contracted laboratories on a regular basis and stored securely at a secure warehouse facility leased by Investigator. Pulp samples are stored in original cardboard boxes supplied by the laboratory with laboratory batch code displayed on each box. Boxes are stacked on pallets and shrink wrapped.

Criteria	JORC Code explanation	Commentary
		• Samples may suffer from oxidation and are not stored under nitrogen or in a freezer. • Metallurgical sample was obtained from bulk split overrun material on site at Paris (material that was split, and remaining post sub sampling for assay). This material at time of splitting was returned to original plastic sample bags with the down hole metre interval annotated. Bulk material was stored in down hole interval order on site, with bag tops rolled over to prevent contamination for subsequent resampling if required. Metallurgical sample material had bags selected and cable tied shut prior to transport to Adelaide. • Met sample material was packed in sealed plastic buckets by Investigator staff and couriered with tracking to ALS in Burnie by TNT. Photographic confirmation of packing and receipt were retained.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Original sampling methodology and procedures were independently reviewed by Mining Plus who undertook the 2013 Paris resource estimation. • Additional review of methodology and practices was completed by H&SC during the 2016 infill drilling program completed as part of the 2017 updated resource estimation. H&SC confirmed at the time of review that the 2016 QA/QC body of work was of industry best practice standard. • Reviews of past drill hole data has seen continual improvement, with significant changes to recording of quality control data from drill holes to ensure maximum confidence in assessment of drill and assay data. • Current drilling and sampling procedures have been reviewed during site visits by the competent person, in addition to ongoing review and supervision by an Investigator geologist with Paris Project experience of greater than 8 years.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *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.*	• The Paris Project is contained within EL 6347 that was granted to Sunthe Uranium Pty Ltd a wholly owned subsidiary of Investigator. . • Investigator manages EL 6347 and holds 100% interest. EL 6347 is located on Crown Land covered by several pastoral leases. • An ILUA has been signed with the Gawler Range Native Title Group and the Paris Project area has been Culturally and Heritage cleared for exploration activities. This ILUA terminated on 28 February 2017 however this termination does not affect EL 6347 (or any renewals, re-grants and extensions) as the explorer entered into an accepted contract prior to 28 February 2017. • There are no registered Conservation or National Parks on EL 6347. • An Exploration PEPR (Program for Environment Protection and Rehabilitation) for the entirety of EL 6347 has been approved by DEM (South Australian Government Department for Energy and Mining). • All drilling work has been conducted under DEM approved work program permitting, and within the Exploration PEPR guidelines. All relevant landowner notifications have been completed as part of work programs.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• No previous exploration work has been undertaken at the Paris Project by other parties. • The deposit was discovered by Investigator in 2011.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Paris Project is an Ag-Pb deposit that is hosted predominantly within a sequence of flat lying polymictic volcanic breccia related to the Gawler Range Volcanics. • 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 approximately 1.6km length and approximately 800m width and is situated at the base of a Gawler Range Volcanic (mid-Proterozoic) sequence at

Criteria	JORC Code explanation	Commentary
		an unconformity with the underlying Hutchison Group (Palaeo-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 graphitic meta-sediment indicating a possible 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 structural 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 associated with the brecciation event. Multiple stages of mineralisation associated 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, arsenopyrite *etc*). 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-existing faults. A high degree of clay alteration has overprinted the breccia body, much of which is considered to be hypogene however a limited zone of secondary weathering effects which is interpreted to have led to a limited zone of supergene mineralisation is interpreted at the base of complete oxidation. • An alternate model of emplacement, where a structural based emplacement model has been considered. This model presents some viable alternate genesis methodology, but is not regarded to change the overall deposit mineralisation geometry to any marked extent.

Criteria	JORC Code explanation	Commentary
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *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.*	• Drill hole information is recorded within the Investigator in-house referential database. • Hole location details referred to in this release are tabulated. • The company has maintained continuous disclosure of drilling details and results for Paris, which are presented in previous public announcements. • No material information is excluded.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No exploration results intersections are reported as part of this release. • No metal equivalents are reported. • Weighted average silver recovery is reported based on the relative percentage of a metallurgical domain's contribution to the global 2017 Paris resource.
	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Mineralisation geometry is generally flat lying within the majority of the breccia hosted deposit however there may be a locally steeper dipping component within the dolomite basement. • All reported intersections are on the basis of down hole length and have not been calculated to true widths.
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.*	• No maps or sections are provided as results presented relate to composited metallurgical material based on geometallurgical properties. Location of composite material within Paris deposit does not materially add to the information presented.

Criteria	JORC Code explanation	Commentary
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.*	• Comprehensive reporting is undertaken. • No reporting of additional exploration results are accompanying this release.
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.*	• Preliminary metallurgical test work was completed by Core in 2018. Four geometallurgical domains were tested including oxide breccia, transitional breccia, Mn-Carbonate and Dolomite domains. Metallurgical recovery from this body of work averaged at 74% Ag. Additional testwork which is the subject of this release has been undertaken allowing for improvement on the 2018 outcome through additional metallurgical process testwork. • Mineralisation is near surface and generally hosted by weathered and intensely altered volcanic lithologies where primary textures may be hard to distinguish or are obliterated. • Groundwater is generally present below 40m depth. • Multi-element geochemistry assaying (48 or 61 elements) is routine for all sampling. Some elemental associations are recognised within certain lithologies within the deposit and are used as a tool to assist in interpretation of original lithologies where alteration affected the ability to visually determine the lithology. • Density measurements are undertaken on all competent core using Archimedes principle. Pycnometer measurements have been undertaken by ALS on six RC holes and ten diamond holes. A further nine diamond holes, in addition to normal density measurement using Archimedes principle have had wax immersion measurements undertaken at regular intervals. Archimedes density measurements of 2016 diamond drilling was comparable to earlier density results. Additional density check measurements were carried out on 2016 diamond core which included whole tray weight density checks with results in line with expectations. • Density for lithological units and oxidation state were recorded. • Whole bag weight RC data was converted to a recovery by applying the density of logged geology for each interval to determine a recovery percentage. Results were compared down hole with grade to further assess potential grade/recovery bias, with no obvious bias apparent. • Aeromagnetic and gravity survey data covers the project area and 5

Criteria	JORC Code explanation	Commentary
		induced polarisation sections cross cut the deposit. This data has been used in targeting drilling and in some interpretation.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Further QA/QC work to support an additional updated estimated resource is planned to occur. • Additional metallurgical studies in addition to process flow sheet and other components to produce a prefeasibility level of study document are planned.