

## Excellent Au-Cu Metallurgical Recoveries at Coogee

### Highlights

- Gravity recoverable and free milling gold confirmed at Coogee.
- Opportunity to recover gold separately to copper and vice-versa.
- Copper is unlikely to be problematic for gold recovery.
- Arsenic concentrations are very low and unlikely to be deleterious in gold leaching.
- Bottle roll leach testing is proposed on future drill core samples to confirm the expected high level of free milling gold component.
- Copper flotation testwork to be conducted on future diamond drill core samples.

Javelin Minerals Limited ("Javelin", ASX: JAV or "the Company") is pleased to report the results of a staged testwork program to investigate metallurgical qualities of composite samples collected from the RC drill programs completed at the Coogee Project during the period October 2020 to February 2022 (Figure 1).

The RC drill programs completed to date by Javelin have defined two gold-copper trends north of the Coogee Pit. The overall Coogee mineralised trend now has a strike length of 1km, making it a significant gold-copper mineralised system.

Gold diagnostic assaying from composite/selected interval assays, investigated whether there is a gravity gold component by conducting screen fire gold assays and also investigated the copper mineralogy using diagnostic acid and cyanide leaching stages. The importance of determining the copper mineralogy cannot be underestimated since high copper solubility in cyanide could indicate potential problems in conventional gold recovery processes and help to define copper speciation for potential copper recovery using flotation.

### Commenting on the Metallurgical testwork, Javelin's Executive Director, Mathew Blake said:

*"We are very pleased to see that our first phase of metallurgical testwork has returned excellent gold and copper recoveries from composite RC drill samples at Coogee with considerable gravity recoverable gold. This complements the metallurgical recovery of 96.4% obtained by Ramelius Resources when they mined and processed the Coogee pit in 2013, with reported production of 147,400 tonnes at 4.7 g/t Au for a recovered 20,400 ounces of gold".*

## Metallurgical Testwork Results - Technical Commentary

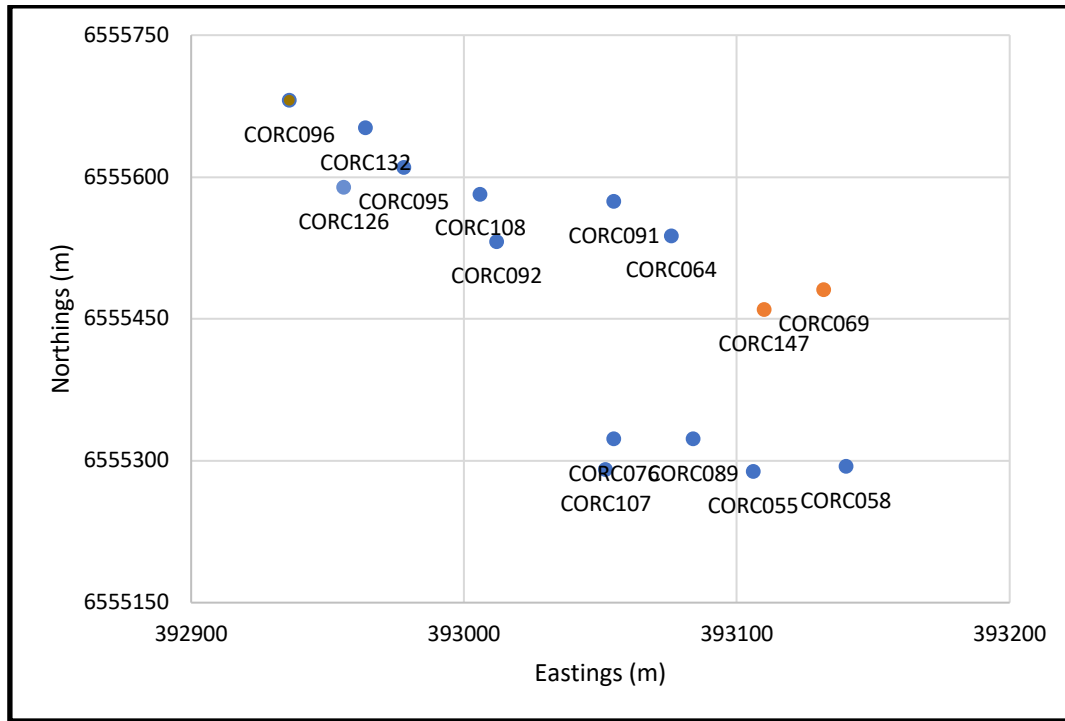
As part of the metallurgical testwork program, each composite sample was crushed to less than 3.35mm, thoroughly homogenised, then split into sub samples using a rotary splitter. Sub-samples from each composite were submitted for gold determination using fire assay with repeat assays. Selected composite samples also had screen fire assays conducted, which is where the sample is screened at 75 microns and both the oversize and undersize portions analysed for gold and a weighted sample gold grade calculated. In addition, iron, total sulphur, sulphate sulphur and sulphide sulphur were determined. Arsenic assays were also conducted. Assay results are presented in the following Table 1.

**Table 1:** Gold, Arsenic, Iron and Sulphur Assays

Sample	DH Calc Au (g/t)	ALS Au <sub>1</sub> (g/t)	ALS Au <sub>2</sub> (g/t)	ALS Au <sub>SFA</sub> (g/t)	Fe (%)	As (%)	Total Sulphur (%)	Sulphate (%)	Sulphide (%)
CORC055-1	3.45	5.57	4.07	3.77	6.28	<0.01	0.06	0.06	<0.02
CORC055-2	2.22	2.26	2.16		8.05	<0.01	0.06	0.06	<0.02
CORC055-3	1.59	0.96	1.46	1.68	3.31	<0.01	0.10	0.04	0.06
CORC058-1	1.37	1.40	1.44		11.0	0.01	0.05	0.05	<0.02
CORC064-1	1.97	1.40	1.35		29.5	<0.01	1.03	0.07	0.96
CORC069-1	0.61	0.59	0.61		5.20	<0.01	0.08	0.04	0.04
CORC076-1	1.38	1.31	1.20		3.13	<0.01	0.07	0.03	0.04
CORC089-1	0.42	0.31	0.34		7.23	<0.01	0.53	0.09	0.44
CORC091-1	1.87	1.41	2.06	2.19	14.8	<0.01	0.42	0.14	0.28
CORC092-1	1.86	2.36	3.89	3.22	19.2	<0.01	0.55	0.11	0.44
CORC095-1	1.07	0.71	0.82		13.5	0.01	0.92	0.12	0.80
CORC096-1	0.82	0.64	0.69		12.2	<0.01	3.30	0.28	3.02
CORC107-1	2.01	1.84	1.69		5.83	<0.01	0.05	0.05	<0.02
CORC108-1	2.37	1.71	1.80		10.3	<0.01	0.43	0.11	0.32
CORC108-2	4.77	4.51	4.34		13.9	<0.01	0.08	0.08	<0.02
CORC126-1	0.81	0.67	0.94		12.6	<0.01	1.05	0.13	0.92
CORC132-1	0.57	2.30	3.43	0.74	13.3	<0.01	1.27	0.15	1.12
CORC147-1	0.69	0.58	0.54	3.77	3.53	<0.01	0.08	0.04	0.04

Composite gold assays typically followed the trends of the calculated composite assays based on separate interval assays. The main exception was sample CORC132-1. There was considerable differences between repeat gold assays, which is indicative of the presence of coarse gold particles. A common rule of thumb has it that there is a substantial presence of coarse gravity gold when the gold assay of the oversize portion is 10 times higher than the weighted result. Table 2 below provides a breakdown of screen fire assay data. All samples where a screen fire assay was conducted are likely to contain coarse gold particles since they easily fall within the 10 times coarse size fraction assay ratio. Despite the low mass fractions reporting to the oversize, gold distributions were mostly well above 10% due to high gold assays in the oversize portions. Repeat assays of the undersize portions were

reasonably consistent for most samples except for sample CORC91-2 where four repeat samples were assayed with unacceptably high variability between results. This is likely due to a presence of mostly free and fine gold particles being present in the sample.



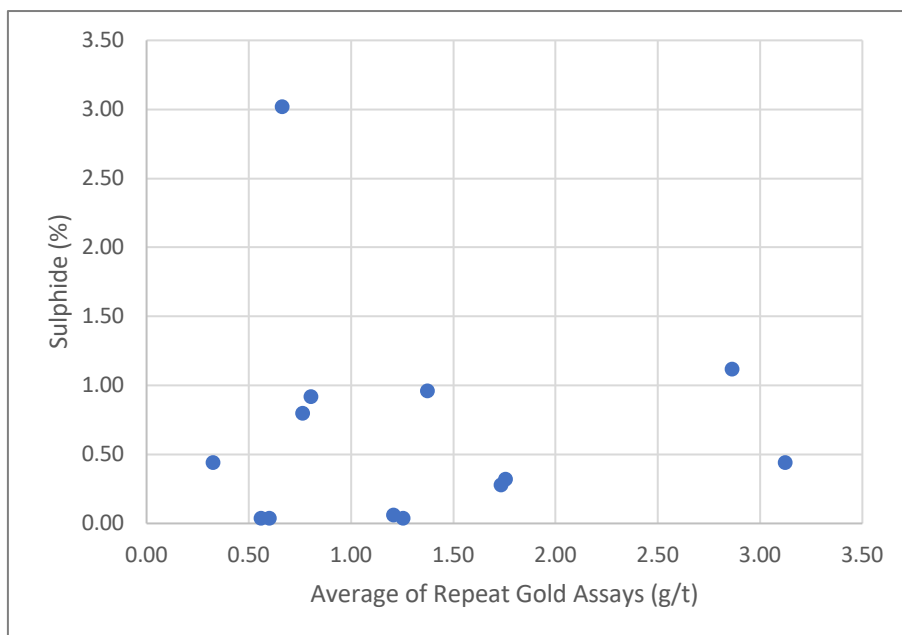
**Figure 1:** Plan of Drill Hole Collars

**Table 2:** Screen Fire Data

Sample	+75µm Fraction			-75µm Fraction			Combined	Ratio +75µm[Au]/Wtd [Au]
	Mass (%)	Au (g/t)	Distr. (%)	Mass (%)	Ave. Au (g/t)	Distr. (%)	Weighted Au (g/t)	
CORC055-1	0.40	91	9.7	99.6	3.42	90.3	3.77	24.2
CORC055-3	0.46	72.3	19.9	99.5	1.35	80.1	1.68	43.1
CORC091-1	1.19	24.4	13.3	98.8	1.92	86.7	2.19	11.2
CORC091-2	1.49	56.8	26.3	98.5	2.41	73.7	3.22	17.6
CORC132-1	0.65	16.3	14.3	99.3	0.64	85.7	0.74	22.0

Variability in repeat assay results and the high upgrade ratios of the screen fire assays are all indicative of free milling gold. Free milling gold is readily recoverable using gravity gold recovery equipment as well as in conventional gold leach circuits with carbon adsorption.

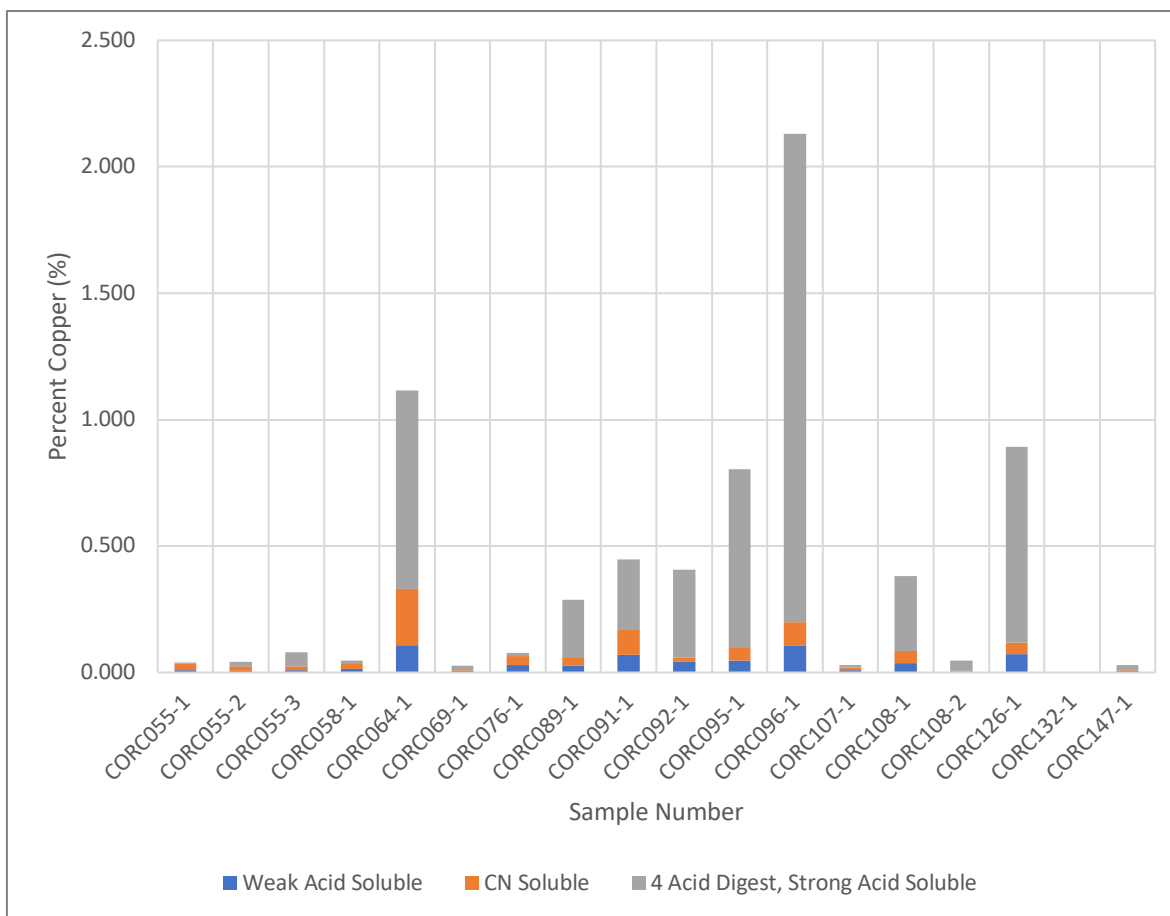
Composite sample sulphide levels were low and there doesn't appear to be a relationship between gold and sulphide assays. See the figure 2 below, where the sample gold assay is plotted against the sample sulphide concentration. The metallurgical testing indicates that the gold is not intimately associated with the sulphide mineralisation



**Figure 2:** Plot of Gold Assays versus Sulphide Concentration

Sulphide minerals, especially reactive sulphide minerals, have a propensity to consume cyanide during cyanide leaching, and the relatively low sulphide levels indicate that high cyanide consumptions won't be problematic during gold leaching. Similarly, a presence of reactive sulphide minerals can passivate the gold surface causing slow leaching rates during gold leaching.

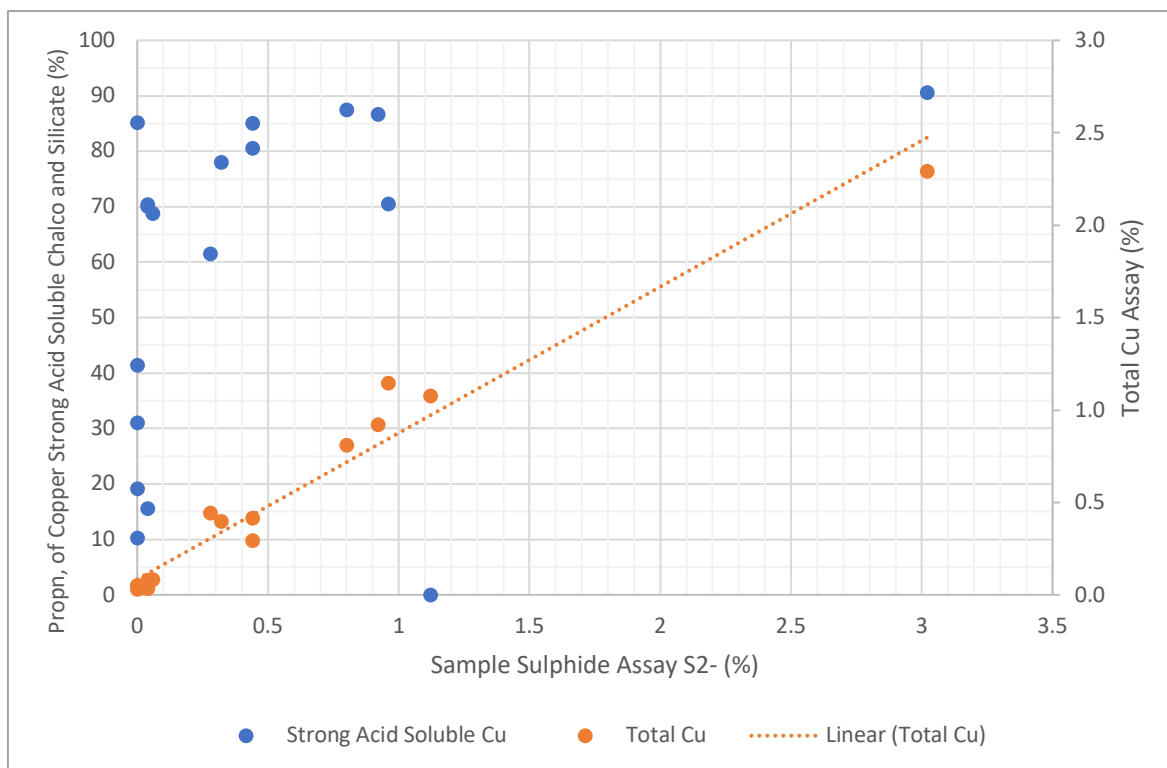
As can be seen in Figure 3 below, in most metallurgical testwork samples, the majority of the copper is strong acid soluble, suggesting the most predominant copper mineral is chalcopyrite. Metallurgically, chalcopyrite is usually readily recoverable by flotation. It is also a very low cyanide consumer in conventional alkaline cyanide gold leaching. Furthermore, high proportions of the copper contained in these composite samples are combined in both the cyanide soluble and strong acid soluble portions adding to the sample's copper amenability to recovery by flotation.



**Figure 3: Composite Sample Diagnostic Copper Analyses**

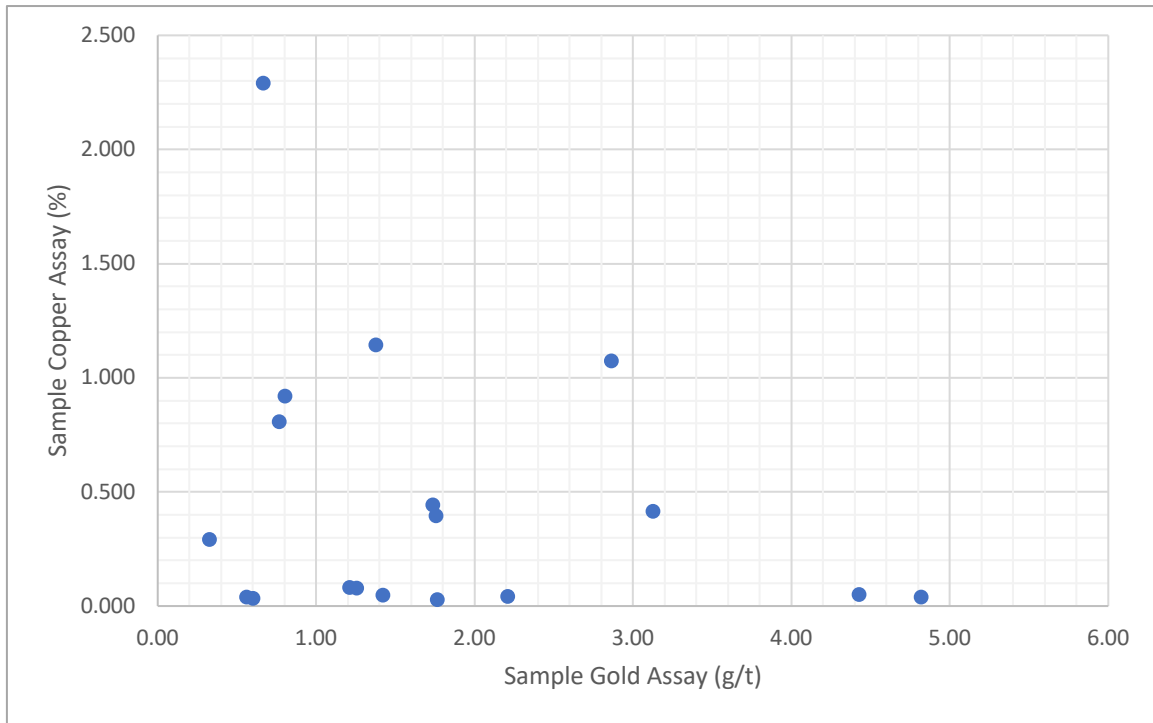
Despite there being a reasonable portion of cyanide soluble copper in the samples, this portion is very small relative to the total contained copper and won't detrimentally elevate cyanide consumptions when cyanide leaching for gold recovery.

As part of the testwork process, sulphide sulphur and copper assays were reviewed when evaluating future Coogee copper ore's suitability to copper flotation. This was undertaken to quantify pyrite as being the main sulphidic diluent of the copper minerals. Normally higher concentrations of pyrite can detrimentally affect the ability to produce saleable flotation concentrates due to co-flotation and consequent lowering of the copper concentration in the concentrate, Figure 4 below includes two plots; the blue markers indicate a plot of the proportion of chalcopyrite (and silicates) of the copper in a sample versus the corresponding sample sulphide analysis. For samples with sulphide analyses above 0.25% the copper mineral is most likely, 70% to 90% chalcopyrite. The red markers in the plot below show that below 1% sulphide and above 0.25% sulphide, the samples contain mainly chalcopyrite. Above 1% sulphide there are other sulphides present as indicated by an increasing sulphide to copper ratio. However, the ratio remains very close to unity at the higher sulphide containing samples, which suggests only a small dilution of chalcopyrite with other sulphide minerals, possibly dilution by pyrite. When considering the low chalcopyrite dilution in the context of copper flotation, this suggests that minimal effort is needed to depress iron sulphide minerals in flotation and good copper concentrate product grades are expected.



**Figure 4: Sample Sulphide Relationship with Copper**

Testwork undertaken exploring metallurgical relationships between the valuable elements (copper and gold) in an orebody is necessary to ascertain economic distribution of valuable elements. For example, for copper-gold ore deposits it is important to understand if the gold is associated with the copper. If a strong relationship exists then the recovery process can be simplified to copper flotation to produce a bulk copper and gold concentrate for sale. If the gold is not associated with the copper, then additional processing steps are likely for an economically feasible flowsheet. Plotting the sample copper grade against the sample gold grade provides an illustration of such a relationship (Figure 4).



**Figure 5: Sample Copper versus Gold Assays**

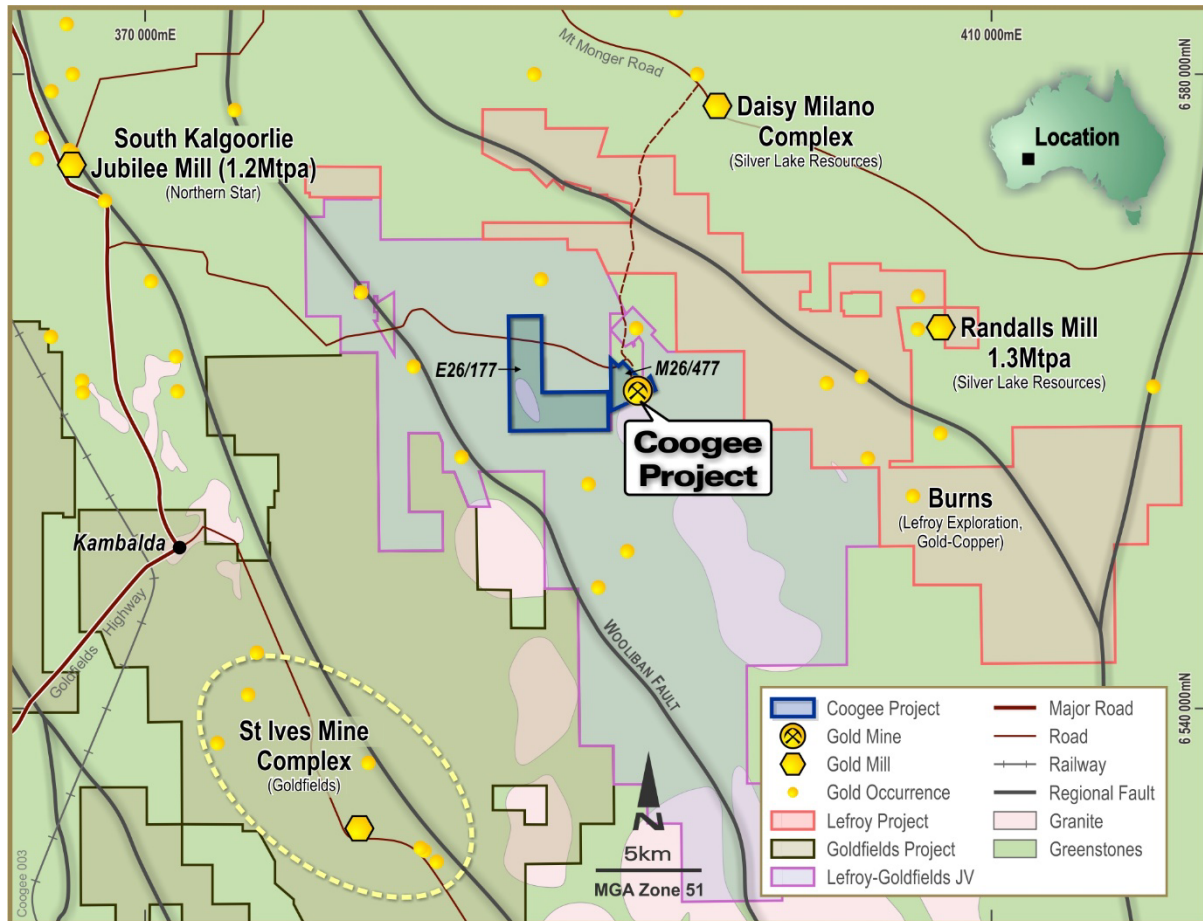
Figure 5 illustrates no relationship between copper and gold in the samples tested and therefore the opportunity to recover gold separately to copper and vice-versa. However, free gold does have a propensity to concurrently float with copper during flotation to produce a copper concentrate.

#### **Next Steps**

Future metallurgical testwork is proposed to confirm the expected high free milling gold component at Coogee. The next batch of RC and diamond samples would undergo bottle roll leach testing and investigation of gravity recoverable gold and copper recovery testwork, comprising flotation testing would be conducted on diamond drill core samples.

## About Coogee Project

Coogee is located approximately 55km southeast of Kalgoorlie on the north-eastern shore of Lake Lefroy and comprises seven tenements (Mining Lease M 26/477, Exploration Licences E 26/177 and E 26/236, Exploration Licence Applications E 26/245 and E 26/248 and Miscellaneous Licenses L26/264 and L26/265) that cover an area of approximately 17km<sup>2</sup>. The project's location (Figure 6) near the major mining centre of Kalgoorlie in Western Australia provides ready access to both significant exploration and mining support services and a skilled workforce.



**Figure 6:** Location map showing Coogee Project tenements, mills and infrastructure.



Following the completion of the four phase RC drill program totalling 135 holes for 19,136 metres, a Mineral Resource Estimate (MRE) has been completed by independent consultants. Table 3 shows the MRE for all remaining material (i.e., depleted for previous mining), above a cut-off grade of 0.5 ppm (g/t) Au.

**Table 3:** Coogee Updated Mineral Resource Estimate.

Classification	k Tonnes	Au ppm (g/t)	Au k oz
Indicated	614	1.43	28.2
Inferred	808	0.80	20.8
Total	1,422	1.07	49.0

This update represents a 1,400% increase in tonnage and a 350% increase in overall contained metal from the previous estimate announced by Ramelius Resources Limited ("Ramelius") on 3 September 2014 (see ASX Release Resources and Reserves Statement). Whilst the new MRE increase can be partially attributed to a lower cut-off grade for reporting, the increase is also the result of significant resource extensions from four phases of Javelin RC drill programs as well as a thorough in-house geological interpretation which has highlighted more prospective areas of gold mineralisation.

Ramelius mined an open cut pit (approximately 70m deep) at Coogee in 2013, with reported production of 147,400 tonnes at 4.7 g/t Au for a recovered 20,400 ounces of gold. Processing was at the Burbanks Mill (conventional carbon-in-leach processing facility), south of Coolgardie with metallurgical recovery of 96.4%.

*This ASX announcement is authorised for market release by the Board of Javelin Minerals Limited.*

**For more information:**

Please visit our website for more information: [www.javelinminerals.com.au](http://www.javelinminerals.com.au)

or

Contact Matthew Blake, Executive Director: +61 419 944 396

## COMPETENT PERSON

The information in this report that relates to Exploration Results concerning the Coogee Project is based on information compiled by Mr Harjinder Kehal who is a Registered Practicing Geologist and Member of the AusIMM and AIG. Mr Kehal has been engaged as a Consultant by Javelin Minerals Limited. Mr Kehal has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results. Mr Kehal consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the above original market announcements. 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 announcements.

# JORC Code, 2012 Edition – Table 1 report

## Section 1 Sampling Techniques and Data – Coogee Metallurgical Testwork

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"><li>• 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.</li><li>• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li><li>• Aspects of the determination of mineralisation that are Material to the Public Report.</li><li>• In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation 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.</li></ul>	<ul style="list-style-type: none"><li>• For the recent reverse circulation (RC) drilling (during 2020/2022) completed by Javelin, holes have been sampled initially as 4 m spear composites, and subsequently 1m samples. RC 1 m samples were split with a cone splitter into calico bags during drilling and submitted for analysis if the 4 m composites had anomalous Au values. The spoils were bagged per metre in appropriately sized plastic bags left next to each drill hole.</li><li>• For Metallurgy test work, select intervals of RC samples were composited together using the lab analysis assays to achieve a targeted composite head grades for samples from Coogee Project.</li><li>• Metallurgical samples collected were despatched to ALS Metallurgical Laboratories in Perth for analysis and testing.</li></ul>
Drilling techniques	<ul style="list-style-type: none"><li>• Drill type (eg core, reverse circulation, 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).</li></ul>	<ul style="list-style-type: none"><li>• The Coogee deposit has been drilled with a combination of Aircore (AC), Reverse Circulation (RC) and Diamond core drilling (DD). The primary method of drilling has been RC (5 3/8 inch face sampling hammer) with only minor DD.</li></ul>
Drill sample recovery	<ul style="list-style-type: none"><li>• Method of recording and assessing core and chip sample recoveries and results assessed.</li><li>• Measures taken to maximise sample recovery and ensure representative nature of the samples.</li><li>• Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li></ul>	<ul style="list-style-type: none"><li>• Minor wet intervals occur and can affect RC sample recovery, although most recent drilling has been with rigs of sufficient capacity to provide dry chip samples. Chip sample recovery is generally not logged.</li><li>• No relationships between sample recovery and grades exist.</li></ul>

Criteria	JORC Code explanation	Commentary
Logging	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Logging has been completed for all RC drilling including rock type, grain size, texture, colour, foliation, mineralogy, alteration, sulphides and veining, with a detailed description written for many intervals. All logging is of a level sufficient in detail to support resource estimation.</li> <li>Historic RC holes have been logged at 1m intervals to record weathering, regolith, rock type, colour, alteration, mineralisation, structure and texture and any other notable features.</li> <li>Logging was qualitative, however the geologists often recorded quantitative mineral percentage ranges for the sulphide minerals present.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <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 style="list-style-type: none"> <li>RC samples were split for every metre drilled with a cone splitter mounted beneath the cyclone. Initial sample submission was for 4 m (spear sample) composites, with the 1 m splits sent for assay of the 4 m composite returned anomalous results. Sample weights were generally between 3 to 4 kg.</li> <li>Where field duplicates are taken the core is cut into two quarters. Field duplicates for RC samples are taken from the secondary sampling port on the cone splitter, which was opposite the primary sampling port.</li> <li>All samples were sorted and dried in ovens for up to 8 hours (approx. +/-) at 105°C Primary sample preparation has been by crushing the whole sample. For RC samples, the whole sample was crushed to a nominal 3mm Boyd crush. For diamond core the whole sample was crushed to a nominal 10mm (primary crush) and then further crushed to a nominal 3mm. All samples were then split with a riffle splitter to obtain a sub-fraction, a nominal 2 kg sample where possible. All material was retained after splitting. Samples were then milled using a robotic preparation system to 90% passing -75um.</li> <li>For Metallurgy test work, select intervals of RC samples were composited together using the lab analysis assays to achieve a targeted composite head grade.</li> <li>Metallurgical sample preparation was carried out at the ALS laboratory facilities in Perth following standard preparation procedures for metallurgical test work.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the</li> </ul>	<ul style="list-style-type: none"> <li>1m split RC samples and all diamond core samples have been analysed for Au (10 ppb) and Cu (1 ppm) – for Au, the samples have been analysed by firing a 40g or 50g portion of the sample with an ICP-OES or AAS finish. The primary laboratory used for all recent and some historical assaying was Bureau Veritas in Canning Vale, WA.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p>parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</p> <ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Copper has been determined by 4-Acid Digest followed by ICP-OES finish.</li> <li>Previous operators used commercial laboratories such as ALS, SGS, KalAssay and Genalysis, and included umpire laboratory checks between these labs.</li> <li>Standards (Certified Reference Materials – CRMs) were submitted with a minimum 3/100 samples, blanks minimum 2/100 samples, duplicates minimum 2/100 samples for RC and DD drilling.</li> <li>Various OREAS Certified Reference Materials standards have been used, ranging from 0.2 ppm up to 5.30 ppm Au. The range of values for the CRMs are appropriate for the mineralisation grade and style.</li> <li>Analysis of the CRM and filed duplicate data show the sampling is unbiased and suitable for use in mineral resource estimation.</li> <li>Metallurgical test work was conducted on transition and fresh mineral samples at ALS Laboratories. Test work on the variability composites determined that the mineral value could be successfully recovered following grinding with a bulk zinc concentrate flotation flowsheet.</li> <li>The flotation conditions are included in this report.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>All data has been checked internally for correctness by senior consultants and contractors.</li> <li>No adjustments have been made to assay data.</li> <li>There have been no twinned holes drilled at this point, although there is very closely spaced RC grade control at various orientations drilling that confirms the continuity of mineralisation.</li> <li>Historical drilling was captured using Field Marshall software, with the data loaded directly into the central SQL database. Recent drilling has been recorded on using excel software on field laptops.</li> <li>Assay results were loaded electronically, directly from the assay laboratory. All drillhole data has been visually validated prior to resource estimation.</li> <li>Metallurgical sample verification – all testing is conducted with sufficient assays to allow a built-up head to be calculated that can be verified against the assay sample value.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and</li> </ul>	<ul style="list-style-type: none"> <li>For drilling completed prior to 2020 and post 2020 collars were surveyed using DGPS equipment or by the mine site surveyors to</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p>other locations used in Mineral Resource estimation.</p> <ul style="list-style-type: none"> <li>• Specification of the grid system used.</li> <li>•</li> <li>• Quality and adequacy of topographic control.</li> </ul>	<p>sub 0.5 m accuracy. Co-ordinates were surveyed in either the local mine grid or the MGA94 grid system.</p> <ul style="list-style-type: none"> <li>• For recent drilling (2020 onwards) dip and azimuth readings have been completed using a north seeking gyro (Reflex or Axis) for all holes where possible. For the Ramelius drilling (~2012 – 2013), deeper holes were surveyed by gyro, with shorter grade control holes using the collar compass and clinometer readings at surface.</li> <li>• Topographic surfaces have been generated from aerial photogrammetry or detailed surveys. Some older drillhole RL data has been adjusted to match accurate topography.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>• Data spacing for reporting of Exploration Results.</li> <li>• Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>• Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>• The majority of the central and southern part of Coogee drilling is on a 20 m section by 10 m on section spacing, with some infill to 5 m on lines in core high grade zones and/or selected 12.5 m sections within the pit.</li> <li>• In the northern part of the deposit, the drill spacing is mostly on 40 m spaced sections, with holes at 20 m to 40 m along section, with occasional infill holes on 20 m spaced sections.</li> <li>• All previously reported sample/intercept composites have been length-weighted.</li> <li>• RC drill composite samples collected for metallurgy testwork.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>• If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>• Mineralisation dips at 30° to the west and strikes north south. The majority of the exploration drill holes are oriented at 60° towards grid east, and therefore the downhole intercepts discussed in previous announcements are very close to the true widths of the mineralised shoots, and is unbiased.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>• The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>• Chain of custody was managed by company representatives and is considered appropriate. The laboratory receipts received samples against the sample dispatch documents and issues a reconciliation report for every sample batch.</li> <li>• Historical (pre-2012) sample security is not recorded.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>• The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>• No external audits or reviews have been conducted apart from internal company review.</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 tenement and land tenure status	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The tenement (M26/477) is 100% owned by Javelin Minerals Limited and is in good standing and there are no known impediments to obtaining a licence to operate in the area.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Much of the drilling data at Coogee is historical, with work undertaken by Harmony Gold (2002), Ramelius Resources (2012-2015), Serena Minerals (2019), Sovereign Resources (1996-1999), Terrain Minerals (2016) and View Resources (2004). Ramelius, Sovereign and View conducted extensive work, with only minor drilling by the other parties.</li> <li>Most of the Harmony and Ramelius drilling was in the area that would become the pit, including grade control drilling.</li> <li>Statistical analysis of the historical drilling with the more recent drilling by Victory Mines (now Javelin Minerals) shows that the Au grade distributions are comparable, and that all the drilling data is suitable to use for mineral estimation.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Coogee gold/copper deposit is hosted by felsic dacitic and rhyolitic units. Mineralisation is hosted within a shallow (-30°) west dipping lode/shear zone. Pit exposures show the lode zone to be associated with sericite-chlorite alteration, coarse pyrite-hematite mineralisation and foliation. It is interpreted as an Archaean structurally hosted lode gold deposit possibly occurring on a sedimentary layer within the volcanic sequence. High grade zones occur as SE plunging shoots within the shear zone.</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>All significant intersections for Coogee have been previously reported in Javelin Minerals Quarterly and Annual reports (<a href="https://javelinminerals.com.au/reports/">https://javelinminerals.com.au/reports/</a>).</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	
Data aggregation methods	<ul style="list-style-type: none"> <li>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.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Top-cuts have not been applied to previously announced drilling results.</li> <li>Aggregated sample assays calculated using a length weighted average.</li> <li>Gold equivalent values were not used for previous reporting of exploration results.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul style="list-style-type: none"> <li>Mineralisation dips at 30° to the west and strikes north south. The majority of the exploration drill holes are oriented at 60° towards grid east, and therefore the downhole intercepts discussed in previous announcements are very close to the true widths of the mineralised shoots.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to figures in previous announcements.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All significant results above the stated reporting criteria have previously been reported, not just the higher-grade intercepts.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>There is no other material exploration data to report at this time.</li> </ul>



Criteria	JORC Code explanation	Commentary
Further work	<ul style="list-style-type: none"><li>• The nature and scale of planned further work (eg tests for lateral 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>	<ul style="list-style-type: none"><li>• Planned further work includes additional drilling to test extensions at depth and to the south of the higher-grade zone south of the as-mined pit, and drill testing of the supergene mineralisation in the northern part of the deposit.</li><li>• Future metallurgical testwork proposed is expected to confirm the expected high free milling gold component at Coogee. Next batch of RC and diamond samples would undergo bottle roll leach testing and investigation of gravity recoverable gold.</li><li>• Copper recovery testwork, comprising flotation testing would be conducted on diamond drill core samples.</li></ul>