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The Manager Companies ASX Limited 20 Bridge Street Sydney NSW 2000

(11 pages by email)

# **Updated Internal Scoping Study Delivers Positive Results**

(ASX: AUK)

The Directors of Augur Resources Ltd ('Augur' or 'the Company') are pleased to advise that the original Scoping Study on its Randu Kuning deposit located within the Wonogiri project (ASX announcement dated 11 March 2014) has been updated to include the significantly enhanced project economics resulting from the aggregate potential of the project (ASX announcement dated 6 July 2015), metallurgical studies (ASX announcements dated 28 October 2015 and 29 April 2016) and current costings for fuel and equipment. The results of the internal Scoping Study confirm the potential for the development of the deposit at Randu Kuning.

As part of the update a JORC compliant resource estimate of the Randu Kuning deposit was completed by Trevor Leahey of Computer Aided Geoscience Pty Ltd, Australia, a Competent Person as defined under JORC 2012, the results of which are detailed below.

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## **Internal 2016 Scoping Study Summary**

The Scoping Study was undertaken by Augur technical staff and based on comparable mining operations in Indonesia and Australia. Metallurgical data was provided by testwork completed by Pt. Geoservices in Jakarta under the guidance of qualified independent consultants MetChem Consultants of Perth, Australia and also PWA Limited of Kuala Lumpur, Malaysia.

Consultant	Study input
Computer Aided Geoscience Pty Ltd	JORC 2012 Mineral Resource
MetChem Consulting / PWA Ltd	Metallurgical testwork & Process costs
ALS Ammtec	Flotation processing testwork (2012)
National Land Development Pty Ltd	Operating & Mining Costs
Pt Archi Indonesia	Operating & Mining Costs
/ Sumatra Copper & Gold plc	
Pt. Intertek	Assays
Pt. Geoservices Ltd	Metallurgical testwork and aggregate ASTM
	testwork
Various	Aggregate Market Study

The project is supported by a low strip-ratio, good metallurgical recoveries, excellent access to infrastructure and national grid power. The study focused on an open pit mining operation with material treated by gravity concentration and flotation to produce a gold (+ silver)-rich gravity concentrate and a copper (+ gold, silver bearing) concentrate. The Scoping Study assumed 50% of in-pit waste rock would be sold as aggregate.

As Augur does not currently have adequate capital and operational finance to develop the Wonogiri project and scoping studies are not at a stage to secure project financing, the Company is precluded by the recently released ASIC Information Sheet 214 concerning forward looking statements by mining and resource companies from announcing details of the Scoping Study and its related cautionary statements.

Operating costs were estimated at a preliminary level based on local benchmarked costs and comparable mining costs. Capital expenditure costs to develop the project were estimated based on comparable mining industry costs with allowances for second hand equipment and local costs. No contingency was used in the capital cost estimates.

## **Mineral Resource and Mining Inventory**

Despite the fact that, as outlined above, the Company is precluded from providing details about its Scoping Study, the enhanced economics result in a revised JORC 2012 compliant resource estimate for Randu Kuning, completed by Computer Aided Geoscience Pty Ltd, as follows:

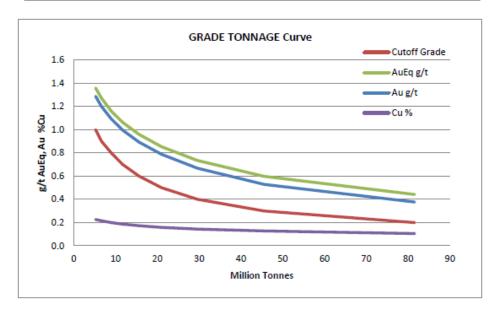
At 0.2 g/t AuEq¹ cut-off grade the total contained resource is 81.56 million tonnes at 0.38 g/t Au and 0.11% copper. This represents 1.15 million ounces of AuEq consisting of 996.5 thousand ounces of gold and 190 million pounds of copper. At 0.5 g/t AuEq¹ cut-off grade, the cut-off grade used in the Scoping Study, the total contained resource is 20.95 million tonnes at 0.85 g/t Au and 0.16% copper. This represents 573 thousand ounces of AuEq¹ consisting of 533 thousand ounces of gold and 74 million pounds of copper. Details of the resource estimate for Randu Kuning are as follows:

Category	cog g/t AuEq	Tonnes Millons	g/t AuEq	g/t Au	% Cu
	1.0	4.88	1.36	1.28	0.23
	0.9	6.10	1.28	1.20	0.22
	0.8	7.73	1.18	1.11	0.21
	0.7	10.00	1.09	1.01	0.20
MEASURED	0.6	12.74	0.99	0.91	0.18
	0.5	15.65	0.91	0.83	0.17
	0.4	18.54	0.84	0.76	0.16
	0.3	20.58	0.79	0.72	0.16
	0.2	21.59	0.77	0.69	0.15
	1.0	0.25	1.37	1.39	0.16
	0.9	0.31	1.28	1.29	0.15
	0.8	0.43	1.16	1.17	0.15
	0.7	0.60	1.04	1.04	0.14
INDICATED	0.6	0.92	0.90	0.89	0.12
	0.5	1.67	0.74	0.73	0.11
	0.4	2.43	0.65	0.64	0.10
	0.3	2.91	0.60	0.58	0.09
	0.2	3.08	0.58	0.56	0.09
	1.0	0.10	1.37	1.49	0.09
	0.9	0.19	1.15	1.18	0.13
	0.8	0.80	0.92	0.91	0.13
	0.7	1.10	0.87	0.86	0.12
INFERRED	0.6	1.90	0.78	0.75	0.12
	0.5	3.64	0.67	0.62	0.12
	0.4	8.59	0.54	0.47	0.12
	0.3	22.07	0.42	0.35	0.11
	0.2	56.89	0.31	0.25	0.09
	1.0	5.22	1.36	1.29	0.23
	0.9	6.61	1.27	1.20	0.22
	0.8	8.95	1.16	1.09	0.20
TOTAL	0.7	11.70	1.06	1.00	0.19
TOTAL	0.6	15.57	0.96	0.89	0.17
	0.5	20.95	0.85	0.79	0.16
	0.4	29.56	0.73	0.67	0.14
	0.3	45.56	0.60	0.53	0.13
	0.2	81.56	0.44	0.38	0.11

JORC 2012 compliant Resource Estimate of the Randu Kuning deposit within the Wonogiri project. Refer to  $AuEq^1$  formulation in Statement of Compliance

Table: Resource using 0.5 g/t AuEq¹ cut-off grade

CLASS	Tonnes Millions	AuEq g/t	Au g/t	Cu %	'000 Oz Au	'000 T Cu
Measured	15.7	0.91	0.83	0.17	419	26.7
Indicated	1.7	0.74	0.73	0.11	40	1.9
Inferred	3.6	0.67	0.62	0.12	72	4.3
Total	21	0.85	0.79	0.16	533	33.6



# Metallurgy

Augur has previously reported on the metallurgical testing of the Randu Kuning Au-Cu mineralised rock completed by ALS-Ammtec in 2012. This work indicated recoveries of over 89.0% of gold and 95.0% of copper. Concentrates of up to 90.6 g/t gold and 21.2% copper were achieved during initial concentrate optimisation studies. Selected assays of concentrates have shown low arsenic and other deleterious elements.

The Scoping Study used a similar recovery model assuming 87% recovery for both gold and copper to produce a constant concentrate copper grade of 20% and a gold grade of between 60.0 g/t and 90.0 g/t.

Augur is currently completing additional metallurgical testing to evaluate optimising gold recovery via initial gravity concentration and increasing the Cu% in sulphide concentrate via suppression of pyrite during the flotation process. As reported previously approximately 54.3% recovery of gold by gravity and intensive leaching of concentrates; and 86.6% gold, 70.7% silver and 87.7% copper recovery by combined gravity + flotation of gravity tailings.

The completed testwork has also importantly confirmed that Randu Kuning tailings material will be non-acid forming and will be a net acid consumer. As such there will be no acid mine drainage concern for the process tailings.

## **Aggregate from In-pit Waste Rock Evaluation**

General ASTM standard rock quality tests were completed at PT Geoservices laboratory in Bekasi, West Java, and are compiled in Table 1 below. Test work was completed on four bulk rock samples (and three sub samples) made from two waste rock composite samples collected from drill core from 3 drillholes within the Randu Kuning conceptual starter open pit. The results indicate that the Randu Kuning waste rock has the properties required to be highly suitable for a variety of stone aggregate uses including concrete. Specific concrete design testwork has not been completed.

**Table:** ASTM test results for Randu Kuning waste rock composite samples

Test	ASTM No.	BB. 028313	BB. 028313	BB. 028314	BB. 028315	BB. 028315	BB. 028316	BB. 028316	
1650	7.511111101	Aphantic	Andesite	Aphantic	Aphantic	Porpyritic	Aphantic	Aphantic	
Physical Properties	ASTM D7263 - 09	Andesite Slightly A		Andesite	Andesite	Andesite	Andesite	Andesite	
		Weathered	Weathered	Fresh	Fresh	Fresh	Fresh	Fresh	
Natural Density t/m3	ASTM D7263 - 09	2.1	2.3	2.65	2.7	2.5	2.6	2.7	
Porosity%	ASTM D7263 - 09	23.6	8.2	1.66	0.8	9.8	2.5	0.7	
Water Absorption%	ASTM D7263 - 09	11.7	7.9	0.66	2.2	4	0.9	0.2	
Bulk Density	ASTM - C127 - 12	2.3	36	2.553	2.6	52	2	.663	
'Bulk' Absorption	ASTM - C127 - 12	6.	81	2.5	0.3	41	0	.239	
Point Load Test mpa	ASTM D5731 - 08	24	24	65	147	58		60	
Five Cycle Soundness – Sodium Sulfate%	ness - ASTM C88 - 13 56 97 4 18 4 1 5 03 27 92		2	1.37					
Organic Impurities in Fine Aggregate for Concrete	ASTM C40/C40M - 11	Color No.	1 (Clear)	Color No. 1 (Clear)	Color No. 1 Color No. 1 (Clear) (Clear)		Color N	Color No. 1 (Clear)	
Los Angles Abrasion % 100 Rotations	ASTM C131 – 06	51.82	5.92	5.58	3.24	4.64	3	3.44	
Los Angles Abrasion % 500 Rotations	ASTM C131 – 06	85.06	23.34	19.54	12.54	18.04	1	13.74	
Water Soluble Chloride Content%	ASTM D512-12	0.0	)29	0.036	0.03	0.03	0.027		
Water Soluble Sulfate Content%	e ASTM D516-11 0.015 0.019 0.005 0.047		0	.014					
Sulfate Content	ICP	0.02		0.02	0.02	0.03	(	0.02	
Loss on Ignition at 900 C	1000 °C furnace	4.69		4.09	3.39	5.01	5	5.43	
Potential Alkali Reactivity	otential Alkali Reactivity ASTM C289 None None		ne	N	one				
End Use		Fill/Road Base	Road Base	Aggregate	Aggregate	Aggregate	Aggregate	Aggregate	

The Company completed a regional market study in 2015 to assess current aggregate supply and demand within a 100 kilometre radius of the Wonogiri property. A total of 60 users and suppliers were visited, the results of which suggest that aggregate production from a 250 tonnes per hour crusher to produce approximately 600,000-700,000 tonnes of crushed stone per year could be absorbed into the regional market for a variety of uses without price disruption. It is also clear from the market study and discussions with industry consultants that there is a strong demand for high quality aggregate throughout Java to supply ongoing and planned Government infrastructure projects as part of an extensive transportation upgrade initiative.

The Company is in discussions with third parties as part of evaluating several aggregate production scenarios. This includes offtake agreements and also initial production from stand-alone quarries adjacent to the conceptual Randu Kuning open pits. The latter could provide a low capital cost opportunity to get early cash flow with which to advance development of the Randu Kuning mine and develop an aggregate market presence prior to expanded production upon Randu Kuning start-up. Production of manufactured sand product from crushed rock dust may also be feasible.

## 2016 Work Program

Based on the results of the internal Scoping Study Augur plans to continue with completing advanced metallurgical testwork in regards to production of a Cu (+Au) concentrate via flotation processing. The potential to recover a significant portion of the contained gold (and silver) via gravity concentration will also be further evaluated as will further processing of a gold-rich gravity concentrate at an offsite location using intensive leach processing thereby removing the requirement to obtain a permit for cyanide use at mine site. Commencement of initial geotechnical and hydrogeological studies will also proceed to confirm pit slope stability and a water use plan. Further inquiries into potential sale of Randu Kuning waste rock as high quality aggregate and development of a stand-alone aggregate quarry adjacent to the conceptual pit will also be completed.

For further information, please contact Peter Nightingale on +61 2 9300 3310.

Yours sincerely

Peter J. Nightingale

**Director** 

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## **Statement of Compliance**

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Augur staff and contractors and approved by Michael C Corey, geoscientist, who is a Member of the Association of Professional Geoscientists of Ontario, Canada. Michael Corey is employed by the Company and 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, Mineral Resources and Ore Reserves'. Michael Corey has consented to the inclusion in this report of the matters based on his information in the form and context in which they appear. Mr Trevor Leahey, of Computer Aided Geoscience Pty Ltd, whom is a consultant to the Company, prepared the updated JORC 2012 Randu Kuning Resource Estimation. Mr Leahey 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, Mineral Resources and Ore Reserves". Mr Leahey consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mineralisation cut-off used for the Wonogiri project is 0.2 Gold Equivalent with a maximum contiguous dilution interval of 4.0 metres. Sample intervals are generally either 1.0 metre or 2.0 metres. Assaying has been completed by PT Intertek Utama Services, a subsidiary of Intertek Group Inc and Pt. Geoservices. Blanks and/or independent standards are used in each sample batch at approximately each 10 sample interval.

#### <sup>1</sup> Gold Equivalent Calculation for the Randu Kuning JORC 2012 Compliant Resource

Where reported in relation to the Wonogiri mineral resource estimate, Gold Equivalent results are calculated using a gold price of US\$1,250/oz and a copper price of US\$5,500/t. Silver is excluded from the gold equivalent calculation. In calculating Gold Equivalents for the JORC 2012 resource estimate, gold and copper recoveries are assumed to be 85%. As previously reported, metallurgical testing has resulted in mean recoveries from sulphide material of over 90% for gold and 94% for copper. It is the Company's opinion that all metals used in the equivalent calculation have a reasonable potential to be recovered in the event that material from the Wonogiri project was to undergo processing.

The gold equivalent calculation used is  $AuEq = (Au_g/t *$40.20 *85\% + Cu_ppm *$0.0055 *85\%) / ($40.20)$ 

(i.e.: 1.0% Cu = 1.36 g/t Au)

# JORC Code, 2012 Edition – Table 1 report template

# 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 specialized 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 '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.	Diamond drill core was logged by geologists for major lithological units and alteration zones to determine sampling intervals. All sample intervals were marked by core blocks, entered into a ledger and assigned a unique sample number. After cutting and sampling detailed logging continued using standardized forms which were entered into the database and verified daily. Diamond drill core samples are collected from electric saw out half core at intervals generally either 1.0 metre or 2.0 metres.  At the site office the core boxes were weighed and photographed (wet and dry), logged, and then marked-up for half-core cutting and sampling by trained technicians. All work was directly supervised by the Site Geologist.  Samples were oven dried at 105°C, weighed then jaw crushed to 95% <2mm. A 1.5 kg subsample was riffle spit for pulverizing to 95% <200#. Two splits were taken from this product, one for analysis the other for QAQC. Samples were analysed for gold using method FA51, a lead collection fire assay using a 50g charge with an AAS finish. Base metals contents were estimated by method IC01, which used an aqua regia digest with ICP-OES finish.
Drilling techniques	<ul> <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> <li>Diamond drill including PQ, HQ and NQ core collection utilizing standard triple-tube wire line equipment. Holes are surveyed upon completion using a downhole camera.</li> </ul>
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	<ul> <li>Core was cut in half using an electric powered, water cooled diamond blade core cutter located at the site office. Core samples were cut carefully to minimise breakage and to prevent parts of the sample being washed away during cutting. Core intervals that were clay rich and broken or friable were not cut but representatively sampled by spatula and spoon.</li> </ul>

Criteria	JORC Code explanation	Commentary
	whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Drilling supervisors informed prior to start of hole where intersection expected. Half core was bagged according to the sample specifications. PQ core was generally sampled in 0.5 metre lengths whilst HQ and NQ core was sampled in 1 metre lengths where mineralised and 2 metre lengths elsewhere. Sampling intervals were constrained to major lithologic boundaries. There is no significant relationship between recovery and grade. Core recovery is measured against run length and averages 97%.
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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged.	• Diamond drill core was logged by geologists for lithological units and alteration zones and structural features to determine sampling intervals. All sample intervals were marked by core blocks, entered into a ledger and assigned a unique sample number. After cutting and sampling detailed logging continued using standardized forms which were entered into the database and verified daily. Core logging is both qualitative and quantitative. Core is logged descriptively and codes are used to describe alteration type/intensity, quartz type and intensity as well as various percentages of minerals. Structural data including veins, shears, fractures are recorded relative to the core axis.
		<ul> <li>Core recovery and RQD are recorded in the Geotechnical log. The average core recovery from 60 drillholes (metres) is 96%. Recoveries of less than 90% are (depending on the cause of reduced recovery) redrilled to obtain better recovery if necessary. At the site office the core boxes were weighed and photographed (wet and dry), logged, and then marked-up for half-core cutting and sampling by trained technicians. All work was directly supervised by the Site Geologist.</li> </ul>
Sub-sampling	If core, whether cut or sawn and whether quarter, half or all core taken.	Drill core was sawn perpendicular to local structure to ensure representivity.
techniques and sample preparation	<ul> <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> </ul>	<ul> <li>Selected core, based on lithology, alteration and visible mineralization was out in half using an electric powered, water cooled diamond blade core cutter located at the site office. Half core samples are collected at 1m or in some cases 2 metre intervals. In some cases where 2m sample assays were considered significant (&gt;0.5g/t) the same interval was resampled at 1m</li> </ul>

Criteria	JORC Code explanation	Commentary
	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.	intervals using quarter core.  Blanks and/or independent standards are used in each sample batch at approximately each 10 sample interval. Standards were purchased from Ore Research & Exploration Pty Ltd [Bayswater North, Australia]. At the Intertek laboratory samples were oven dried at 105°C, weighed then jaw crushed to 95% <2mm. A 1.5 kg subsample was riffle spit for pulverizing to 95% <200#. Two splits were taken from this product, one for analysis the other for QAQC. Samples were analysed for gold using method FA51, a lead collection fire assay using a 50g charge with an AAS finish. Base metals contents were estimated by method IC01, which used an aqua regia digest with ICP-OES finish.
Quality o assay data an laboratory test:	<ul> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the</li> </ul>	Assaying is completed by PT Intertek Utama Services in Jakarta, a subsidiary of Intertek Group Inc. (accredited for chemical testing under ISO/ICE 17025-2005). A structured Quality-Assurance-Quality-Control program has been conducted during all drill phases. The program has consisted of regular submission of blanks and prepared standards and comparative sample runs with other laboratories. Standards were purchased from Ore Research & Exploration Pty Ltd [Bayswater North, Australia] Assays falling outside of acceptable ranges are re-assayed. Intertek Laboratories also carry out routine internal quality control, and review of this data suggests there are no issues with either precision or accuracy.  Separate groups of mineralised sample pulps are sent on a routine basis to other accredited laboratories in Jakarta to test for laboratory scale systematic errors.  A full QAQC program was completed using blanks, standards and interlaboratory checks. There is no significant variation within the assays.
Verification o sampling an assaying	alternative company personnel	In 2011 Corbett Geoscience reviewed the geological /deposit model and also evaluated the assay database and QAQC protocols. As the drilling to date has been entirely by diamond drill no twinned holes have been completed.  All field and laboratory data is entered into an Excel database with QA/QC templates included.

Criteria	JORC Code explanation	Commentary
		Drill databases are stored in industry standard formats in Access. Initial data entry was performed by trained technicians and validated by senior personnel. For modelling purposes drill assays were reloaded into Foxpro databases directly from laboratory csv files using the unique sample number as a primary key.  During modelling 11 copper samples were cut to a value of 1%Cu to match the cumulative distribution function.  No adjustments to the assay data has occurred.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control.	Initially collars are located with hand held GPS devices. Drill collar elevations and hole locations are later recorded with differential GPS equipment by a licenced surveyor.     The mapping grid is WGS 84, Zone 49 South. Topographic control is by Lidar survey and differential GPS.
Data spacing and distribution	Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	<ul> <li>Drilling was undertaken on a nominal 50 x 50m grid with toe spacing at nominal 50m.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type 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>	• The Randu Kuning mineralization occupies an oblate elliptical annulus around a multiphase intrusion that strikes East-Southeast. Drilling is oriented east-west with both east dipping and west dipping holes. The slight variance in these orientations will not bias the disseminated mineralization that has been modelled for the deposit. High grade structural trends that are known to occur have not been adequately tested by the drilling. These trends have not been included in the model and may provide a bonus to the resource.
Sample security	The measures taken to ensure sample security.	Drill samples were under the direct supervision of company personnel from drilling at site, through sample preparation up until delivery to the assay laboratory in Jakarta. Intertek standard sample submission forms were cross-checked with Sample Receipt Confirmation notes issued by the Laboratory. Laboratory results were emailed to the site office as well as the corporate offices in Jakarta and Sydney.

Criteria		JORC Code explanation	Commentary
Audits reviews	or	The results of any audits or reviews of sampling techniques and data.	<ul> <li>An audit of sampling techniques and the drill database was completed as part of the resource study.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JC	ORC Code explanation	Co	ommentary
Mineral tenement and land tenure status	•	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	•	The 3,928 hectare Wonogiri Property tenure is under the Indonesian National Izin Usaha Pertambangan or Mining Business License (IUP) system. The Wonogiri IUP (545.21/054/2009) is held 100% by PT Alexis Perdana Mineral (
	impediments to obtaining a licence to operate in the area.	impediments to obtaining a licence to operate in the area.	•	The IUP is currently in the process of transfer to an IUP Exploitation license expected before January 2017.
			•	There are no forestry restrictions over the IUP nor any social or environmental issues known.
			•	There are no known impediments to exploration and mining development.
Exploration done by other parties	•	Acknowledgment and appraisal of exploration by other parties.	•	Diamond drilling by PT Oxindo in 2009-10 intersected 40m grading 1.1g/Au, 0.3%Cu from 92m and 15m at 1.8g/tAu, 0.2%Cu from 137m in WG001, and 37m at 1.8g/tAu, 0.2%Cu from 458m in drillhole WG002.
Geology	•	Deposit type, geological setting and style of mineralisation.	•	The Randu Kuning deposit consists of a mineralized polyphasal carapace breocia sitting astride a polyphasal diorite / micro-diorite intrusion. The deposit is one of a number of mineralized occurrences within the Miocene-
Drill hole	•	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill	•	See Appendix A, this report.

Criteria	JORC Code explanation	Commentary
Information	holes:  o easting and northing of the drill hole collar  o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar  odip and azimuth of the hole odown 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.	
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg outting of high grades) and out-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.	<ul> <li>Assay data was drillhole composited to 2.5m, using length weighted averaging, to reduce sample variance in the population without unduly affecting the form of the distribution.</li> </ul>
Relationship between mineralisation widths and intercept lengths	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').	<ul> <li>The mineralization consists of a broad zone of disseminated material displaying gradational boundaries with the host material. There is no confusion of geometry with drillhole intercept angle.</li> </ul>
Diagrams	<ul> <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>	See Appendix B, this report
Balanced reporting	<ul> <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>	Summary statistics are listed in the relevant section of this report.

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	<ul> <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>	All pertinent information is included in the report.
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.	Not applicable.

#### 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
Database integrity	<ul> <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>	Assay data was loaded directly from laboratory text files.     Statistical analysis and hard copy plotting of all data in plan & section view to check for inconsistencies in distribution
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.     If no site visits have been undertaken indicate why this is the case.	<ul> <li>No site visit was completed. The field work was supervised by known colleagues with substantial field experience in this environment and style of mineralization.</li> </ul>
Geological interpretation	Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.     Nature of the data used and of any assumptions made.     The effect, if any, of alternative interpretations on Mineral Resource estimation.     The use of geology in guiding and controlling Mineral Resource estimation.     The factors affecting continuity both of grade and geology.	3D domains of gold and copper mineralization were built from section and plan view interpretations of the assay and geological data. These domains show good continuity between drillhole intersections.     The domains were used to control data selection for the interpolation process.

Criteria	JORC Code explanation	Commentary
Dimensions	<ul> <li>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.</li> </ul>	<ul> <li>The copper and gold domains have plan view dimensions of 350x160m and extend from surface for 500m. The model changes from a pipe to an annulus around RL50, equivalent to 200m below surface. The domains strike SSE and plunge near vertically.</li> </ul>
Estimation and modelling techniques	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.  The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.  The assumptions made regarding recovery of by-products.  Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).  In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.  Any assumptions behind modelling of selective mining units.  Any assumptions about correlation between variables.  Description of how the geological interpretation was used to control the resource estimates.  Discussion of basis for using or not using grade cutting or capping.  The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	Grades were estimated using an Inverse Distance algorithm working within a scaled and oriented search ellipsoid defined by variography and geology. Block grades were estimated from 2.5m composites of like geology code (i.e. ore for ore, waste for waste) selected by sector search from within the ellipsoid. A minimum of 3 composites was required for a determination from a maximum of 18 (3 per sector for 6 sectors).  This report upgrades a previous JORC estimate by CAG in 2012.  There are no significant recovery bi-products.  No information is currently available on AMD.  The block size of 10x10x5m represents a selective mining unit of 1,350 tonnes equivalent to 6 truckloads in a small scale open pit. The block size represents 20% of the drill data spacing.  The interpreted copper and gold domains were used to code the composites and the block geology.  Gold grades were not cut as they formed a single log-normal population. A small number of copper samples, in excess of 1% were cut to 1% to ensure a single homogenous log-normal population for copper.  The topography, rock and grade models were validated using statistical techniques and visual scanning of hard copy plots to ensure the models were a reasonable representation of the original data.
Moisture	<ul> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	Tonnages are estimated on a dry basis.
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul> <li>Cutoff grades were selected to reflect mining operations of comparable deposits.</li> </ul>
Mining factors or assumptions	<ul> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when</li> </ul>	The deposit has potential to be mined by bulk mining methods from an open pit. Metal extraction could use either Carbon-In-Leach technology to recover gold only or Flotation to recover a copper-gold concentrate.

Criteria	J	ORC Code explanation	Commentary
		estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	
Metallurgical factors o assumptions	·	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding 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>Preliminary metallurgical testwork has identified recoveries of 85% for copper and 80-90% for gold.</li> </ul>
Environmen-ta factors o 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.	Environmental impacts will be included as Modifying Factors in the Mining Reserve report
Bulk density		Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	Bulk Density was estimated using large (core-tray scale) samples. This natural estimate incorporates both void and moisture observations.     Detailed check measurements of wax-coated core specimens were taken by Intertek using the specific gravity method.     As there is no significant statistical difference between the sub-populations the average SG of 2.7 has been used in the tonnage estimate.
Classification		The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit.	<ul> <li>Classification into confidence categories based on interpolation parameters which adequately reflect the changing drill density with depth. The majority of the mineral resource is categorized as Measured &amp; Indicated in response to the tight drill density and confidence in the geologic model.</li> </ul>

Criteria		J	DRC Code explanation	Co	ommentary
Audits reviews Discussion relative accuracy/ confidence	or		The results of any audits or reviews of Mineral Resource estimates.  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.  The statement should specify whether it relates to global or local estimates, and, if local, state the relevant to nnages, which should be relevant to technical and economic evaluation. Documentation should include	•	No external audit of the Mineral Resource estimate has been undertaken.  The Mineral Resource estimate is believed to meet industry standards of accuracy and confidence as the spatial data distribution on which it is calculated is well within the geostatistical range of the mineralization (based on variography), the assay quality meets/exoeeds industry standards and the geological interpretation is a reasonable interpretation of the available data. Various interpolation methods and geological orientations of the search ellipsoid were tested to map the grade distribution, including indicator and ordinary kriging. The final IDS method produced the most reasonable representation of the raw data.  The Mineral Resource is a global estimate of the contained mineralization
		<ul> <li>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>		within the deposit. Summary figures for mineralization above cutoff grade provide an indication of the percentage of the deposit that could be economic under various economic scenarios which may/may not be specified. These summary figures are calculated as the sum of block tonnages for blocks whose grade is in excess of the specified cutoff, with the average grade as a tonnage weighted estimate of the block grades.	

# Section 4 Estimation and Reporting of Ore Reserves

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	NOT APPLICABLE TO THIS REPORT

# Section 5 Estimation and Reporting of Diamonds and Other Gemstones

Criteria	JORC Code explanation	Commentary
Indicator minerals	<ul> <li>Reports of indicator minerals, such as chemically/physically distinctive garnet, ilmenite, chrome spinel and chrome diopside, should be prepared by a suitably qualified laboratory.</li> </ul>	NOT APPLICABLE TO THIS REPORT