Echo Resources Limited

ACN 108 513 113

23 November 2016
ASX Announcement
ASX Code: EAR

JULIUS GOLD RESOURCE GROWS TO 335,000 OUNCES

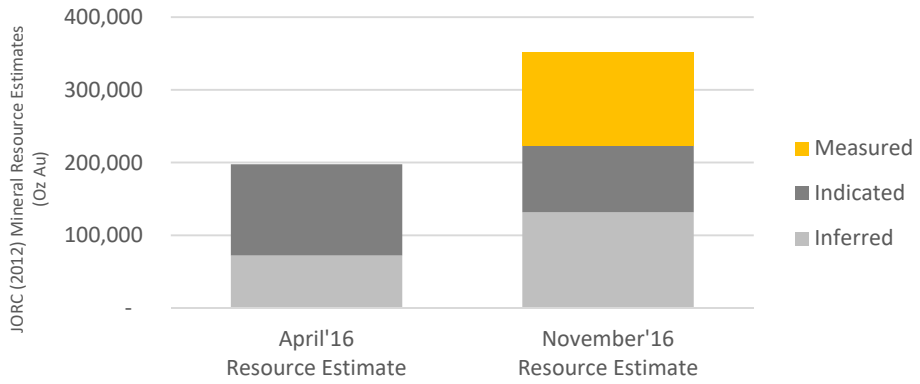
HIGHLIGHTS

- Julius Gold Project JORC (2012) Mineral Resource estimate increased by 48% from 226,000 ounces[1] to 335,000 ounces at an average grade of 2.0 g/t Au.
- Over 60% of the upgraded estimate is now classified as Measured and Indicated to allow potential conversion to reserves as part of the ongoing Bankable Feasibility Study.
- New resource model has been provided to an Independent Mining Engineer for pit optimisation, design and scheduling.

Echo Resources Limited ("Echo", ASX: EAR) is pleased to announce a substantial increase to the Mineral Resource estimate for the Julius Gold Deposit located in the Yandal greenstone belt of the North Eastern Goldfields of Western Australia.

Chief Executive Officer Mr Simon Coxhell said the results from the updated resource estimate form an integral component of the Bankable Feasibility Study and the quantity of Measured Resources is particularly pleasing.

"This updated resource estimate adds in excess of 100,000 ounces of gold to the global Julius resource and validates the comprehensive work completed at Julius over the last 6 months. It is expected that a very high percentage of the resource lying within the optimum pit will be classified as Measured which allows conversion to Proven Reserves. Julius is a very low risk gold deposit with favourable geology, geometry and mining and metallurgical characteristics. It presents a perfect start for the proposed recommissioning of the Bronzewing mill." Mr Coxhell said.



Julius Gold Project Mineral Resource Estimate (by category)[1]

[1] Refer to ASX Announcement dated 8 April 2016 for full details of the earlier Julius Mineral Resource estimate.

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The updated resource estimate follows an active drilling program over the last few months which has seen a total of 141 aircore holes for 6286 metres, 53 RC holes for 5113 metres and 9 HQ triple tube holes for 481 metres drilled. All of these drill holes have now been incorporated into a master drilling database and used for this latest resource estimate.

The resource estimate was completed by Lynn Widenbar of Widenbar and Associates Pty Ltd based on all drilling completed at Julius and incorporating revised ISBD (in-situ bulk density determinations) and updated oxidation and rock surfaces, based on new interpretations utilising the latest detailed drilling programs.

JORC Category[1]	Cut-off Grade (g/t Au)	Tonnes	Grade (g/t Au)	Ounces (Au)
Measured	0.8	1.8Mt	2.1	124,227
Indicated	0.8	1.6Mt	1.3	67,789
Inferred	0.8	1.8Mt	2.5	142,991
Total Mineral Resource	**0.8**	**5.2Mt**	**2.0**	**335,008**

Julius Gold Project Mineral Resource Estimate (by category)

Upcoming drilling, specifically to the south west and north east of the existing defined deposit, has excellent potential for further delineation of additional resources at Julius (see Figure 2).

Company Activities & Upcoming Newsflow

Takeover of Metaliko Resources Limited

- Offer of 1 Echo share for every 2.5 Metaliko Resources Limited (ASX: MKO) shares opened to Metaliko shareholders on 11 November 2016
- The offer closes (unless extended) at 5PM (WST) on 12 December 2016

Julius Bankable Feasibility study:

- Completion of Native Title approval process
- Julius pit design and scheduling
- Receipt of requisite granted mining lease and miscellaneous licences
- Final Bronzewing refurbishment and operating cost estimates.

Project Generation Pipeline:

- High quality grassroots prospects identified and programme of works approved by the Department of Mines and Petroleum with reconnaissance drilling due to commence in January 2017
- Follow-up drilling to be completed at existing known potential deposits
- Metaliko database to be reviewed and primary targets identified
- Metaliko potential near-term production targets (i.e. Corboys, Cockburn) to be reviewed for potential life of mine extensions.

Project Financing:

- Well-credentialed advisor appointed with debt structuring and sizing well advanced
- Discussions with potential lenders have commenced with the goal of having a facility in place in February 2017.

Julius Mineral Resource Estimate Details

Julius Overview

Julius is located approximately 450 kilometres north of Kalgoorlie and 70 kilometres east of Wiluna. The Project is accessed via an eight kilometre unsealed track from the Barwidgee Road and lies within Echo's 900 square kilometres of prospective exploration tenements. Julius is located on granted exploration licence E53/1042 and within Mining Lease Application M53/1099 which are 100% owned by Echo.

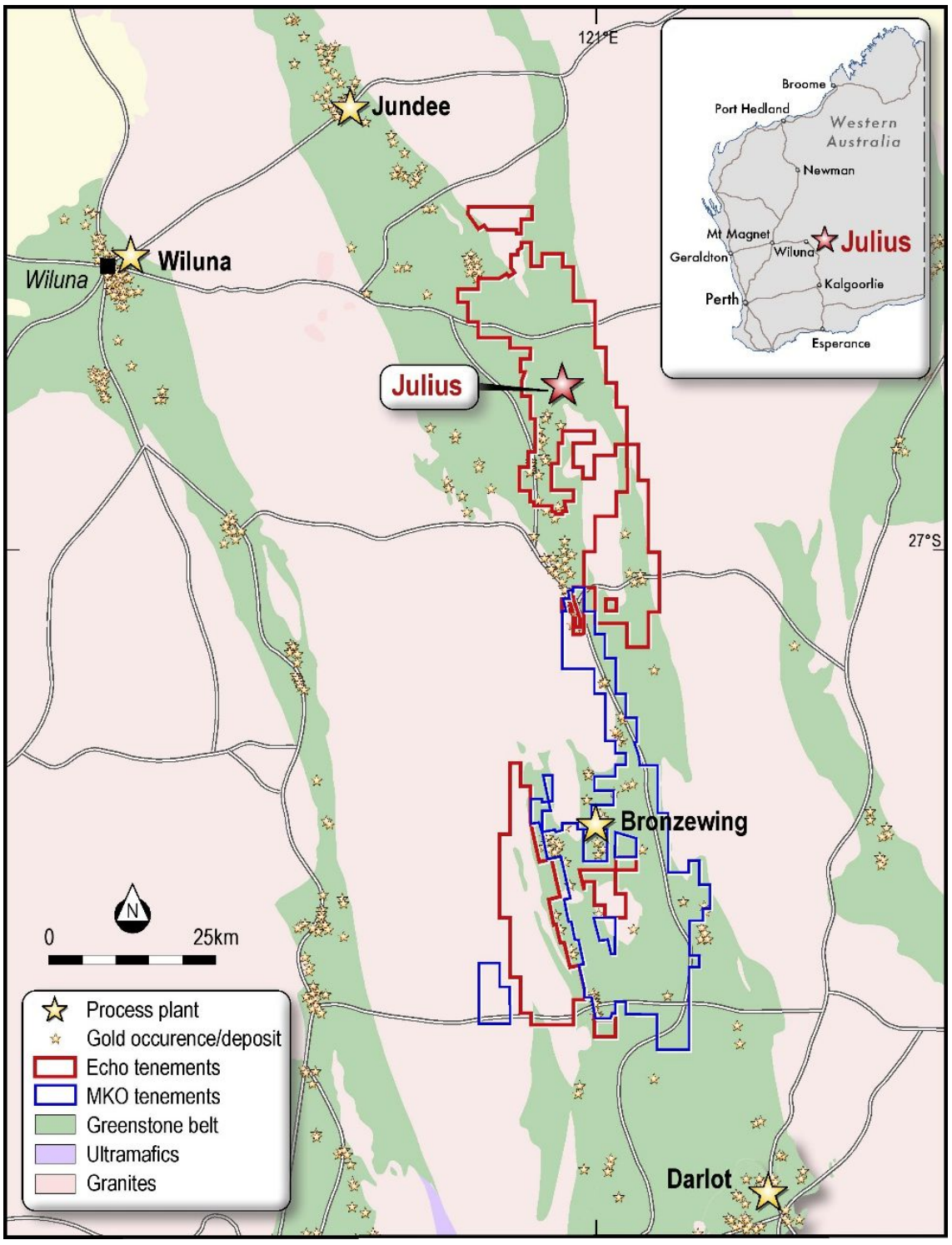

Figure 1: Echo & Metaliko Combined Tenement Holdings

Geology and Geological Interpretation

The Julius gold deposit is hosted on the contact of a shallow west dipping granite contact and predominantly ultramafic rocks within the Yandal Greenstone Belt. Mineralisation is developed in an upper flat lying laterite deposit located between 8-16 metres vertical depth and in supergene and fresh mineralisation localised on the west shallow dipping shear zone. Mineralisation trends NNE over a strike length of approximately 900 metres and dips shallowly at 25-30 degrees to the west. Changes in the orientation of the granite-greenstone contact accompanied by a change of dip appears to play a significant role in the distribution of the higher grade zones within the Julius deposit.

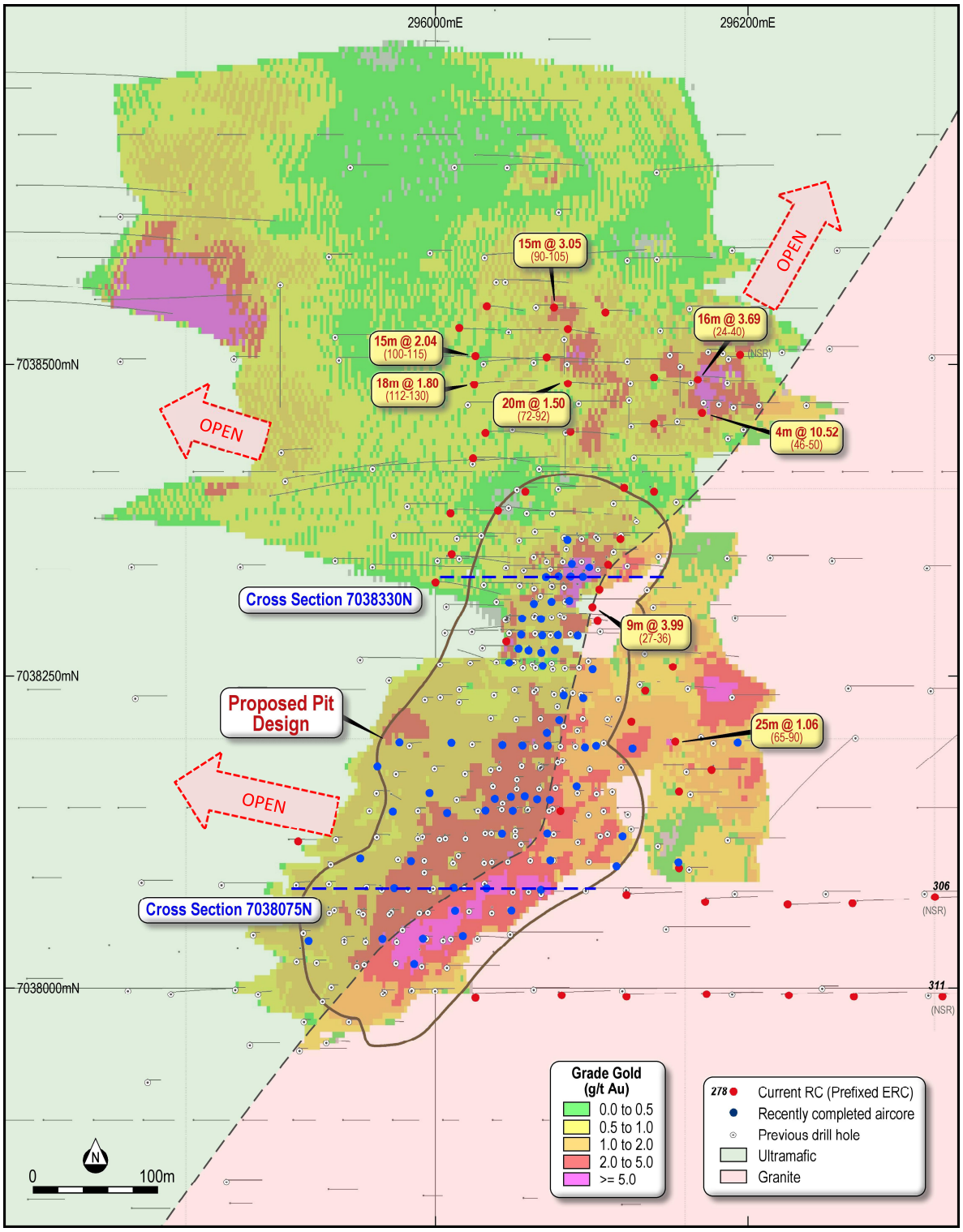

Figure 2: Plan Display Nov 2016 Julius Resource Model

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Sampling and Sub-sampling

The Julius deposit was sampled using reverse circulation (RC), aircore (AC) and diamond drill holes (DD) on a variable drill spacing which varies between 40m by 40m in the northern deeper portion of the deposit, down to a minimum spacing of 10 m X 10 m in the higher grade supergene mineralised zone. The deepest intersection occurs at a maximum depth of approximately 250 metres. A total of 278 reverse circulation holes for 32,316 metres, 173 aircore holes for 7,815 metres and 15 diamond holes for 1,741 metres have been drilled at Julius. For the majority of the RC drilling, 1m RC samples were obtained by cone splitter and were utilised for lithology logging and assaying. Diamond core was used to confirm the structures and interpretation and allowed comparisons between the RC and aircore and the diamond with no significant differences observed. All drilling samples were dried, crushed and pulverised to achieve 85% passing 75µm.

Sample Analysis Method

The drilling samples were predominantly fire assayed using a 50g charge with some fire assay using a 40g charge at commercial laboratories. For historical drilling the samples were dried, crushed and pulverised to achieve 80% passing 75µm and were predominantly fire assayed using a 50g charge, with the 4m field composites assayed via aqua regia on 50g pulps using an AAS finish.

Drilling Techniques

In the resource area RC drilling with a 5 ¼ inch face sampling hammer and aircore drilling (89 mm) blade bit comprises the majority of the drilling. Diamond drilling (comprising HQ) was used, and for the 2016 diamond drilling was triple tube, with good recoveries (>95%) documented.

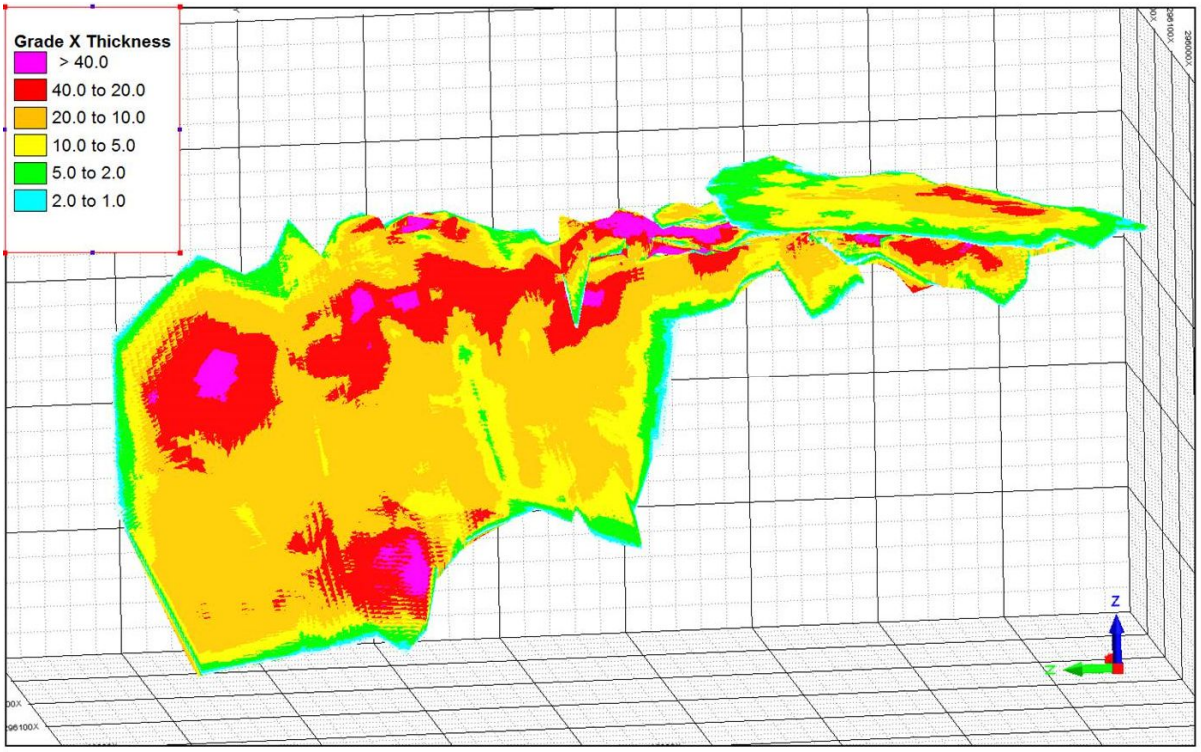

Figure 3: Orthogonal View, Looking East, Grade Thickness Image Block Model

Estimation Methodology

The Julius block model was constructed using a 5m (E) by 10m (N) by 2.5 (Z) block size constrained by a series of individual wireframes, with subcells to 1m X 1m X 0.5m to accurately represent the wireframe solids. A total of 10 individual wireframes were constructed in order to accurately reflect the different mineralised zones within the deposit. The natural topographic surface is relatively flat at the Julius deposit area with surface elevation at approximately 510m-512m RL. Sample data utilized for modelling was first composited according to the main AU1 (Au g/t) item to a 1m down-hole length.

A nominal 0.50g Au/t cut-off was then used to interpret and delineate the mineralization wireframes. Drill hole composite sample data was flagged using validated 3D mineralisation domain wireframes and geological surfaces. Micromine software was used to carry out ordinary kriging interpolation runs for each respective mineralisation zone and domain.

The influence of extreme grade values were examined utilising top cutting analysis tools (grade histograms, log probably plots and coefficients of variation). Grade continuity was measured using geostatistical techniques. Top cut analysis was carried out on each mineralised zone using a combination of inflection points on log probability plots, outliers on log histograms and the effect of top cuts on cut mean and coefficient of variation.

Oxidation surfaces approximating base of oxide and top of fresh were interpreted and assigned into the model to assign in situ bulk density (ISBD) volume to tonnage conversions and utilised a number of different ISBDs based on recent diamond core measurements utilising the Archimedes method (weight in water/weight in air). The ISBDs ranged from 1.8-2.0 tonnes/cubic metre for the oxide, 2.4 tonnes/cubic metre for the transitional zone and 2.6 tonnes/cubic metre for the fresh (sulphide) zone. An ISBD of 2.4 tonnes/cubic metre was used for the laterite.

Resource Classification

The Mineral Resources have been classified as Measured, Indicated and Inferred based on the drill spacing and geological continuity of the various individual mineralised zones. The Resource model uses a classification scheme based upon drill hole spacing plus block estimation parameters, including kriging variance, number of composites in search ellipsoid informing the block cell and average distance of data to block centroid.

Cut-off Grade

The reported cut-off grade of 0.8g/t for the stated Mineral Resource Estimate is determined from economic parameters and reflects the current and anticipated mining practices. The model is considered valid for reporting and open pit mine planning.

Mining and Metallurgical Methods and Parameters and other modifying factors considered to date

The Mineral Resource utilise standardised operating parameters and assumes open cut mining practices with a moderate level of mining selectivity achieved during mining. It is also assumed that quality grade control will be applied to ore/waste delineation processes.

The metallurgical characteristics of the deposit have been assessed via comprehensive testwork on a range of composite samples reflective of the different ore types present. The work has been completed by Nagrom Laboratories and ALS Metallurgical Laboratories. Results to date have all been favourable with the main conclusions from the testwork as follows:

- Approximately 30-70 % of the total gold content was recovered via gravity separation and mercury amalgamation;
- A very high total gold recovery of up to 98.6%;
- The gold extraction was very fast with 95.4% of the gold recovered by gravity separation followed by only 4-12 hours of cyanide leaching;
- The concentrations of elements such as arsenic, mercury, cadmium, antimony, lead and organic carbon are insignificant.

Future Work

The updated resource model will now be passed to Minecomp in Kalgoorlie for pit optimisation followed by pit design and scheduling.

A number of plans and sections are presented below illustrating the block model.

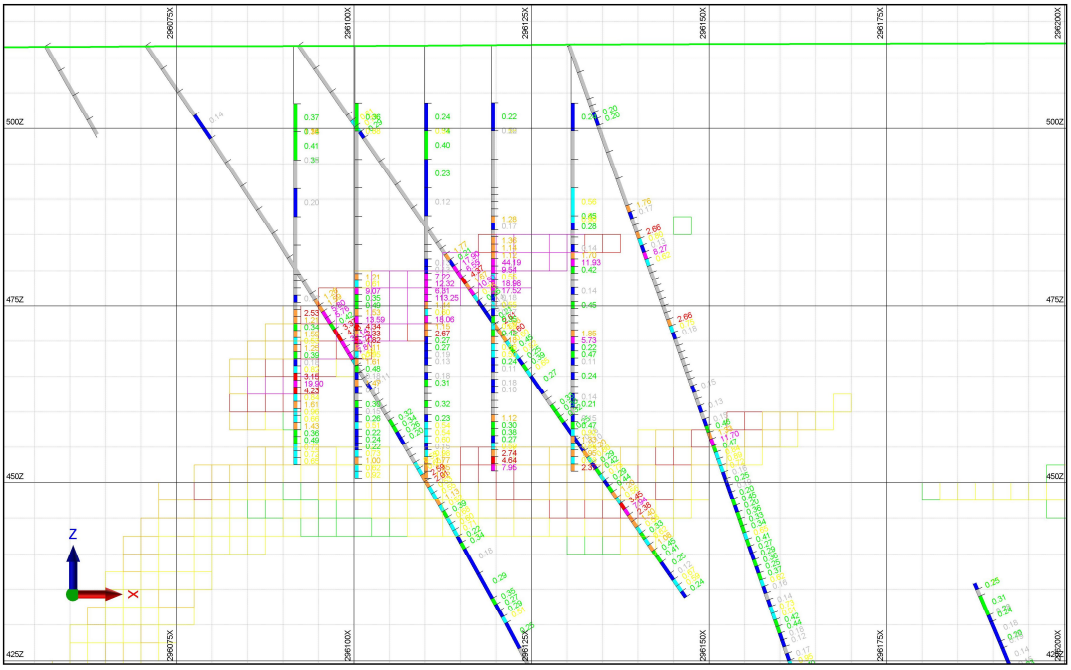

Figure 4: Cross Section: 7038330N

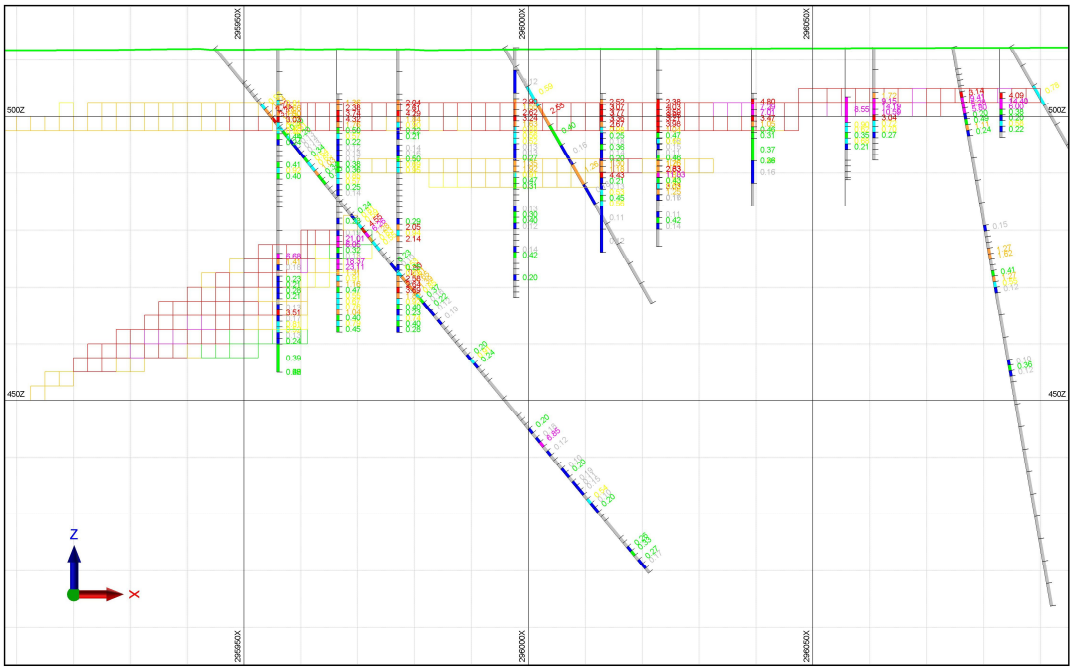

Figure 5: Cross Section: 7038075N

For further information please contact:

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Competent Persons' Declarations

The information in this report relating to Resource Estimation is based on information compiled by Mr Lynn Widenbar, a consultant of Echo Resources Limited, who is a member of the Australasian Institute of Mining and Metallurgy. The information in this announcement that relates to Exploration Results and metallurgical considerations is based on information compiled by Simon Coxhell, a Director of Echo Resources and a member of the Australasian Institute of Mining and Metallurgy. Both have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that they are 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 Widenbar and Mr Coxhell consents to the inclusion in the report of the matters based on the information in the form and context in which it appears

No New Information or Data

This report contains references to Mineral Resource estimates, which have been cross referenced to previous market announcements made by the Companies. The Companies confirm they are not aware of any new information or data that materially affects the information included in the relevant market announcements and, in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

Forward Looking Statements

This announcement includes certain 'forward looking statements'. All statements, other than statements of historical fact, are forward looking statements that involve various risks and uncertainties. There can be no assurances that such statements will prove accurate, and actual results and future events could differ materially from those anticipated in such statements. Such information contained herein represents management's best judgement as of the date hereof based on information currently available. The Company does not assume any obligation to update any forward looking statement.

JORC Code, 2012 Edition

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	• 2006-2015 Drilling at Julius has comprised a total of 225 RC holes for 27.703 metres, 32 aircore holes for 1529 meters and 6 diamond holes for 1262 metres. • More Recent exploration at the Julius Gold Deposit comprised aircore drilling of 67 holes for 2,879 metres, 53 RC holes for 5113 metres and 9 HQ triple tube diamond holes for 481 metres. Approximately 2-4kg of sample was collected from each metre for analysis by riffle splitting of the aircore sample interval collected via the rig cyclone. Onboard cone splitter for the RC and half diamond core for the HQ drilling. • Samples were 2 kilogram samples from the drill spoils collected. Drill hole collar locations were recorded by handheld GPS survey with accuracy +/-2 metres. • Analysis was conducted by submitting the 2kg sample whole for preparation by crushing, drying and pulverising at Nagrom Laboratories for gold analysis via Fire Assay/ICP. • A number of 4 metre composites were also collected in areas outside of the interpreted mineralised intervals.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).*	• Aircore drilling (4 inch), predominantly blade bit with hammer at the bottom of a number of holes, as required below the base of oxidation (>50 metres vertical depth). • RC drilling (5 ¼ inch face sampling hammer) from surface • HQ Triple Tube from surface (78 mm)
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.*	• Drill sample returns as recorded were considered excellent . • There is insufficient data available at the present stage to evaluate potential sampling bias.
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*	• Drill chip logging is a qualitative activity with pertinent relevant features recorded: lithology, mineralogy, mineralisation, structural, weathering, alteration, colour and

Criteria	JORC Code explanation	Commentary
	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.*	other features of the samples. • Rock chip boxes of all sample intervals were collected. All samples were logged. • HQ core was logged in detail, photographed wet and dry, RQDs, structural measurements on all completed. Core was orientated where possible. • All drilling was logged.
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.*	• HQ diamond core was sent to ALS where it was sawn in half along orientation lines or cut lines marked by the geologist in the field. • Sample preparation for all recent samples follows industry best practice and was undertaken by Nagrom Laboratories in Perth where they were crushed, dried and pulverised to produce a sub sample for analysis. • Sample preparation involving oven drying, fine crushing to 95% passing 4mm, followed by rotary splitting and pulverisation to 85% passing 75 microns. • QC for sub sampling follows Nagrom procedures. • Field duplicates were taken at a rate of 1:30. • Blanks were inserted at a rate of 1:30 • Standards were inserted at a rate of 1:30. • Sample sizes are considered appropriate to the grain size of the material being sampled.
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.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• The methods are considered appropriate to the style of mineralisation. Extractions are considered near total. • No geophysical tools were used to determine any element concentrations at this stage. • Laboratory QA/QC involves the use of internal lab standards using certified reference material, blanks, splits and duplicates as part of the in house procedures. Repeat and duplicate analysis for samples shows that the precision of analytical methods is within acceptable limits.
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.* • *Discuss any adjustment to assay data.*	• The Company's Geologist has visually reviewed the samples collected. • 4 HQ diamond twin holes drilled • Data and related information is stored in a validated Mapinfo or Micromine database. Data has been visually checked for import errors. • No adjustments to assay data have been made.
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.*	• All drillholes have been located by DGPS with precision of sample locations considered +/-1m. • Location grid of plans and cross sections and coordinates in this release 2016 samples use MGA94, Z51 datum. • Topographic data was assigned based on a DTM of the Julius opening surface..
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.*	• The holes are nominally spaced on a 10-20 metre (E-W spacing) with hole spacing along each section ranging from 10-20 metres spacing along each section line. • Data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for Mineral Resource estimation procedures. • Sample compositing has occurred on a small number of samples (4 metre composite samples) outside of the interpreted main mineralized zone. .
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 orientation of sampling is considered adequate and there is not enough data to determine bias if any. • Mineralised outcrop strikes north-north-east. Drilling was orthogonal to this apparent strike and comprised vertical drill holes. The flat lying laterite also trends in this orientation and the vertical drilling completed is considered entirely appropriate for this style of mineralization.
Sample security	• *The measures taken to ensure sample security.*	• Chain of custody is managed by the Company and samples are transported to the laboratory via Company staff with

Criteria	JORC Code explanation	Commentary
		samples safely consigned to Nagrom for preparation and analysis. Whilst in storage, they are kept in a locked yard. Tracking sheets are used track the progress of batches of samples.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No review or audit of sampling techniques or data compilation has been undertaken at this stage.

Section 2 Reporting of Exploration Results

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 Julius Gold Deposit is located within E53/1042 located in the northern Yandal Greenstone Belt and is 100% owned by Echo Resources Ltd. The tenement is located in the Wiluna Native Title Claim Group (WC99/24). Newmont Yandal Operations has the right to buy back a 60% interest in any gold discovery containing aggregate Inferred Mineral Resources of at least 2 million ounces of gold. A third party net smelter royalty of 1.5% applies in respect of all minerals produced from the tenement. • The tenement is in good standing • No impediments to operating on the permit are known to exist.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The Julius deposit area was initially located by Newmont based on shallow results. Echo Resources subsequently completed RC drilling which defined the extent of the resource as understood today.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Julius Gold Deposit consists of a flat lying gold rich laterite zone which is located between 10-15 metres vertical depth and overlain by indurated barren transported sands and silts. . This is underlain by clay rich supergene gold mineralisation and at depth primary gold mineralization associated with silica, quartz veining and sulphide development. The mineralisation is largely focused on a shallow west-northwest dipping granite/greenstone contact (principally ultramafic lithologies).

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.*
		• 2006-2015 Drilling at Julius has comprised a total of 225 RC holes for 27.703 metres, 32 aircore holes for 1529 meters and 6 diamond holes for 1262 metres.
		• More recently (2016) a total of 67 aircore drillholes for 2879 metres, 53 RC holes for 5113 metres and 9 HQ triple tube holes for 481 metres were drilled on a global nominal 10-20 metre centres, focused on the mineralized contact zone and laterite gold mineralized zone in the vicinity of the granite-greenstone contact. Full drillhole details for the results received to date have been previously provided in various ASX announcements along with appropriate maps and plans.

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *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 averaging or aggregation techniques have been applied. • No top cuts have been applied to exploration results. • No metal equivalent values are used in this report.

Criteria	JORC Code explanation	Commentary
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 (e.g. 'down hole length, true width not known').*	• The orientation or geometry of the mineralised zones strikes in a north-northeastly direction and dips in a shallow manner to the west-northwest. The laterite is flat lying and overlies this contact zone, with the drilling largely interpreted to be orthogonal to strike.
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.*	• Appropriate maps are included in main body of report with gold results and full details are in the tables reported.
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.*	• All results for the target economic mineral being gold have been reported.
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.*	• Previous work by Echo has highlighted a gold resource of 4Mt @ 1.69 g/t Au at Julius. Metallurgical work suggests excellent gold recoveries are likely through a conventional CIP/CIL gold plant. There are at least two of these in the district within trucking distance of Julius.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Future RC, diamond and aircore drilling is being considered to further evaluate the Julius Gold Deposit. • Refer to maps in main body of report for potential target areas.

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	• *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.* • *Data validation procedures used.*	• Data was provided as a validated Micromine Database and was digitally imported into Micromine software. Validation routines were run to confirm validity of all data. • Analytical results have all been electronically merged to avoid any transcription errors.
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.*	• No site visit has been undertaken by the Competent Person, as little relevant information is available on site and the Competent Person is familiar with the type of gold deposit under consideration. Diamond core and aircore and RC chip boxes have been reviewed. Drilling techniques and methods have been reviewed.
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.*	• The confidence in the geological interpretation is very good, with the latest infill drilling allowing a detailed interpretation. • Geological logging and interpretation allows extrapolation of drill intersections between adjacent sections. • Alternative interpretations would result in similar tonnage and grade estimation techniques. • Geological boundaries are determined by the spatial locations of the various mineralised structures. • Flat lying laterite gold mineralisation confined to individual wireframes, supergene and fresh material individually assessed. Oxidation profiles established and assigned into the model.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The lateral dimensions of the resources at Julius are shown in the diagrams in the body of this release. The mineralisation dips shallowly (maximum 30-45°) but variably to the west as shown in diagrams in the body of this release, and ranges from 6m to 30m thick. A shallow plunge to the northwest is suggested based on drilling to date. The resource extends over approximately 850 metres of strike and extends to a vertical depth of 250 metres. .

Criteria	JORC Code explanation	Commentary

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.*
		• Grade estimation using an Ordinary Kriging methodology has been applied to all Resources. A series of wireframes has been used to subset and constrain the data points used in the interpolation and only individual grades from individual wireframes were used.
		• Variography was carried out on four major zones to define the variogram models for Ordinary Kriging interpolation.
		• All estimation was carried out in Micromine 2016 (64-bit SP3) software.
		• The block models were constructed using a 5m (E) by 10m (N) by 2.5m (Z) block size, constrained by a series of individual wireframes, with sub-cells to 1m x 1m x 0.5m to accurately represent wireframe shapes.
		• Block size is generally half the sample spacing or greater in areas of infill drilling, and typically one quarter in wider spaced drilling areas.
		• No deleterious elements have been identified
		• No assumptions regarding recovery of byproducts have been made
		• An unfolding (or flattening) methodology has been used in the interpolation; this obviates the need for varying search ellipses with dip, with all searches being horizontal, and oriented along the strike direction of each mineralised zone.
		• Search ellipsoids use multiple passes to ensure blocks are filled in areas with sparser drilling. Sizes of searches are based on Kriging Neighbourhood Analysis and are covered in detail in the body of the accompanying report.
		• Sample data was composited to 1m down-hole composites, while honouring breaks in mineralised zone interpretation.
		• The geological interpretation follows a shallow dipping contact zone between a granite to the east and an ultramafic/mafic to the west. Strong shearing accompanies the contact and gold mineralisation.
		• Geological interpretation was carried out of the mineralised zones; consistent, generally shallow-dipping mineralised structures with 1-12m true thickness were interpreted.
		• Top cut analysis was carried out on each mineralised zone, using a combination of inflection points on log probability plots, outliers on log histograms and the effect of top cuts on cut mean and coefficient of variation.
		• Validation was carried out in a number of ways, including
		  ○ Visual inspection section, plan and 3D
		  ○ Swathe plot validation
		  ○ Model vs composite statistics
		  ○ ID2 vs OK model checks

Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages are estimated on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• A nominal downhole cut-off of 0.5 g/t Au has been used to define the mineralised zones. The basis of the 0.5 g/t Au cutoff is an economic analysis coupled to mining dilution considerations. The cut-off corresponds reasonably well with the mineralised shear zone contact zone between the mafic and granite contact.
Mining factors or assumptions	• *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 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.*	• The resources defined to date would potentially be amenable to simple open pit mining. • The shallow dip of the mineralisation, coupled to the extensive near surface laterite mineralisation lends itself to open pit mining with a relatively low stripping ratio.
Metallurgical factors or 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*	• Preliminary metallurgical testwork has suggested excellent gold recoveries, via conventional CIP/CIL gold treatment. • Test work to date has shown that the gold mineralisation is amenable to conventional recoveries via gravity and leaching with approximately 33.2% of the total gold content recovered via gravity separation and mercury amalgamation. • A very high total gold recovery of 98.6% was achieved. • The gold extraction was very fast with 95.4% of the gold recovered by gravity separation followed by only 2 hours of cyanide leaching.

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	this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• Environmental studies have been completed and a Mining Proposal is well advanced. The general Yandal area is well known for gold mining and no environmental impediments are expected.
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/specific gravity have been assigned based on testwork (Archimedes Method) of material of various geological and mineralisation types. The following densities are applied to the resource model. • ALS completed the Bulk Density determinations based on weight in water/weight in air, after wax coating of the diamond core samples. • Base of oxidation, top of fresh and a silcrete digital terrain models were constructed and assigned into the bock model, for both waste and ore.
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.*	• The Mineral Resources have been classified as Measured, Indicated and Inferred based on the drill spacing and geological continuity at the various deposits. • The Resource model uses a classification scheme based upon drill hole spacing plus block estimation parameters, including kriging variance, number of composites in search ellipsoid informing the block cell and average distance of data to block centroid. • The results of the Mineral Resource Estimation reflect the views of the Competent Person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• Echo Resources personnel have reviewed the block model relative to the drilling data and considers the estimate to be an accurate reflection of the gold mineralisation at Julius.
Discussion of relative accuracy/ confidence	• *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 tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The relative accuracy of the Mineral Resource is reflected in the reporting of the Mineral Resource as being in line with the guidelines of the 2012 JORC. • The statement relates to global estimates of tonnes and grade, with reference made to resources above a certain cut-off that are intended to assist mining studies. • No production data is available for comparisons.

Material	Density
Fresh Mineralised	2.6
Transition Mineralised	2.4
Oxide Mineralised	1.8
Silcrete Domain	2.2
Laterite Mineralised	2.4
Waste > 500m RL	2.1