

ASX code: MAU

**ASX Release 23 November 2023** 

# SIGNIFICANT 107% INCREASE OF MINERAL RESOURCE OUNCES AT LAVERTON PROJECT

#### **HIGHLIGHTS**

- This update incorporates recent drilling results at Lady Julie North 4 (LJN4) and Lady Julie Central (LJC) since the last resource report in February 2023 ("Expands Mineral Resources estimate ASX release 3 February 2023").
- Updated combined Mineral Resources estimate for the whole project area of:
  - 22.7Mt @ 1.69g/t Au totaling 1.24Moz of gold at 0.5g/t cutoff.
  - o Increase of 107% of the total ounces over the 3 February 2023 ASX Release.
- Significantly, the contained gold in LJN4 has risen from 204,000oz to 852,000oz Au (a 317% increase).
- LJN4 is now by far the largest resource in the project area and it remains open at depth; exploration continues for similar deposits along the extensive 12km Chatterbox shear.
- Key deposits are close to each other and form part of one mining field.
- Three processing plants are nearby, within 10km 35km away providing scope for toll processing. Given the scale of the resource upgrade, consideration is now also being given to a dedicated processing plant.
- Ongoing extension drilling continues and is expected to result in further resource increases.

Magnetic Resources NL (**Magnetic** or the **Company**) is pleased to announce an Updated Mineral Resource Estimates from its deposits in the Laverton and Homeward Bound area. The main deposits include Hawks Nest 9 (**HN9**), Lady Julie Central (**LJC**), Lady Julie North 4 (**LJN4**), Mount Jumbo and Homeward Bound South, which are all located in an area with well-endowed regional infrastructure including three processing plants within 35kms.

The update follows extensive infill and down-dip drilling mainly at LJN4 and some at LJC.

The verification and reporting of Mineral Resources on behalf of the Company was completed by its JORC Competent Person, Mr M Edwards of Blue Cap Mining. The Mineral Resources Estimate has been prepared and reported in accordance with the 2012 Edition of the JORC Code.

Total Mineral Resources reported for the Laverton and Homeward Bound South projects is now 22.7Mt @ 1.69g/t Au at 0.5g/t cut-off totaling 1,236,000oz of gold (See Table 1 below). The cutoff grade is considered appropriate for a large-scale open pit operation.



### Managing Director George Sakalidis commented:

"The Lady Julie North 4 Resource has been the prime drilling focus as reported in periodic releases to the ASX. It has multiple stacked lodes with a number of thick intersections that have not been closed off at depth. The initial deeper drilling started on the 25 January 2023 and has expanded in subsequent months to a 95-hole RC program for 16,356m. Drilling is continuing, with holes in excess of 400m depth, which is expected to increase the current resource at LJN4 of 13.1Mt at 2.02g/t for 852,000oz at a 0.5g/t cut off (Table 2).

This LJN4 deposit sits within a regional structure called the Chatterbox Shear Zone that extends over a 12km length within the Magnetic tenements. This shear extends southwards of LJN4 and has had initial AC and RC drilling completed and some anomalous intersections that will be followed up with some shallow RC drilling for the purpose of finding further gold deposits.

Drilling in the last 6 months included diamond drill holes for geotechnical evaluation of proposed pits, and for hydrology analysis. Project environmental, heritage and technical background studies are close to completion – optimisation and pit design has commenced on LJC and the expanded LJN4 – the aim is to prepare and submit a Mining Proposal in early 2024. Other strategic opportunities are also being investigated".

The Table below summarises the updated Total Mineral Resource at a 0.5g/t Au cutoff (Table 1), with Table 2 providing details of the major resources. Details for the smaller resources which have not changed can be found in the 3 February 2023 ASX release.

Table 1. Total Mineral Resource at 0.5 g/t Au Cutoff

Classification	Au Cutoff	Tonnes	Au	Ounces
Indicated	0.50	10,400,000	1.74	584,400
Inferred	0.50	12,200,000	1.65	651,300
Total	0.50	22,700,000	1.69	1,235,800



6840000000 HN5 низ 💾 Homeward Bound South 6820000 1 Hawks Nest Lady Julie Mount Jumbo LJ Central Mount Jumbo East LJ WMC H 10 20 km HN9 380000 Homeward Bound South 6820000 Lady Julie 6810000 Mount Jumbo DI 6808000 Mount Jumbo East 6815000 Legend Resource Category Indicated Inferred Unclassified MAU Tenements 2 km 500 1,000 m Roads 6806000

Figure 1. Overview of Magnetic's Laverton and Homeward Bound South Resources



Table 2. Resource details by Main Deposits @ 0.5g/t Au cutoff

D		<b>T</b>	Au	0
Deposit	Classification	Tonnes	g/t	Ounces
LJN4	Indicated	6,807,400	1.95	426,200
LJC	Indicated	792,000	1.97	50,200
HN9	Indicated	1,995,000	1.29	82,800
Other resources	Indicated	837,400	0.94	25,230
Total	Indicated	10,431,800	1.74	584,430
LJN4	Inferred	6,329,700	2.10	426,400
LJC	Inferred	541,600	1.26	22,000
HN9	Inferred	1,182,000	1.25	47,600
Other resources	Inferred	4,193,700	1.15	155,160
Total	Inferred	12,247,000	1.65	651,360
LJN4	Total	13,137,100	2.02	852,600
LJC	Total	1,333,600	1.68	72,200
HN9	Total	3,177,000	1.28	130,400
Other resources	Total	5,031,100	1.12	180,390
Total	Total	22,678,800	1.69	1,235,790

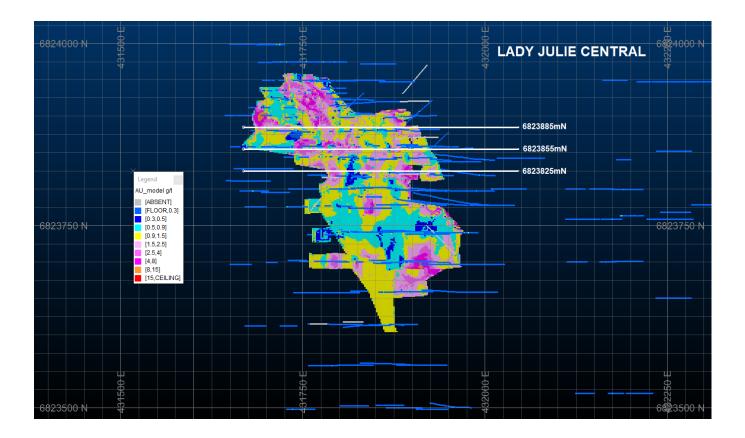
The key deposits that have been drilled in the last six months are LJC and LJN4, which are shown in Table 2 and are further summarised below:

#### **LJC** Resource

The LJC (Indicated and Inferred) Resource of 1.33Mt at 1.68g/t Au for 72,200oz is 350m by 200m in plan (Figure 2). 59% of the resource falls in the Indicated category. There are some thicker intersections including a number of intersections that start from surface (Figure 3 a, b and c). The long section (Figure 4) shows a thickened, near surface zone which gently plunges to the south-east forming two distinct zones.

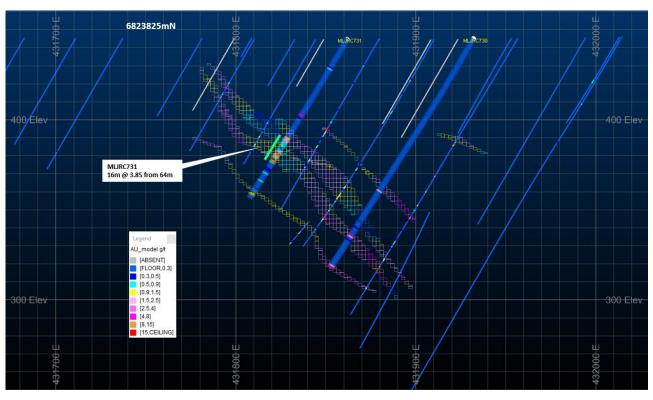


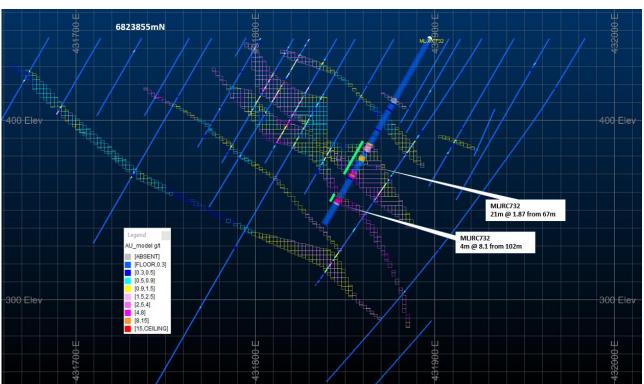
Figure 2. Lady Julie Central plan showing resource block grades and 3 drill sections





Figures 3 a), b), c). Lady Julie Central cross sections showing new gold intersections (shown in green) and resource model with block grades







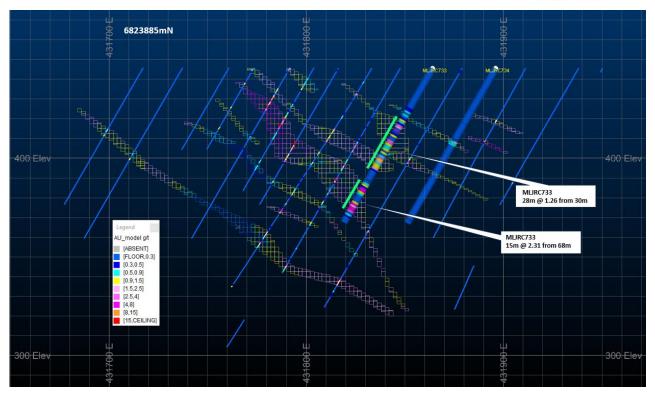
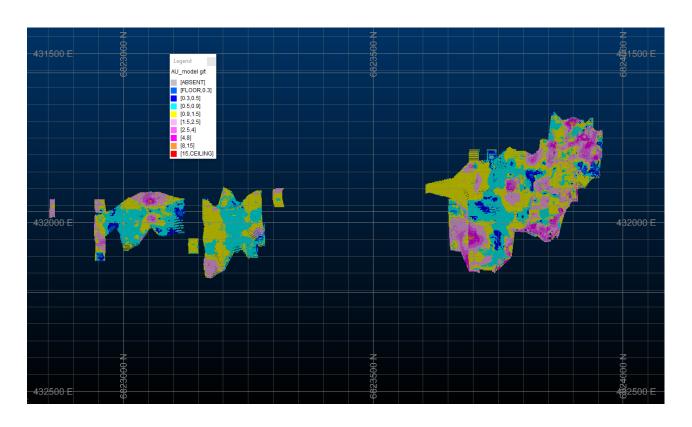


Figure 4 Lady Julie Central Long Section showing resource model with block grades





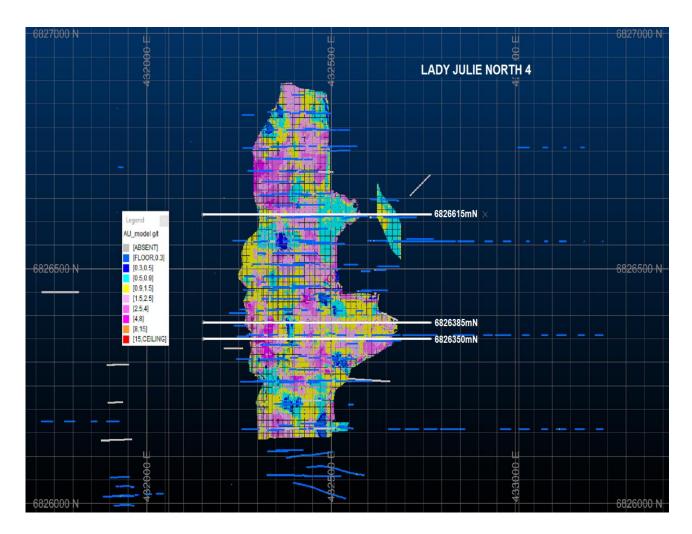
#### **LJN4 Resource**

The LJN4 (Indicated and Inferred) Resource of 13.1 Mt at 2.02 g/t for 852,600 oz has a present footprint of 750m x 500m (Figure 5), and remains open down dip to the east. Recent drilling results have confirmed the previous interpretation of a shallow dipping, multi-lode structure. Where the drilling encounters breccia, the mineralised structure expands considerably. This is particularly the case below 150m depth. More recent step out drilling has encountered large breccia zones which auger well for continuation of mineralisation at depth. Additional drilling is being planned to further test these expanded breccia zones.

From February to October 2023, some 95 RC holes were completed for 16,356m with the deepest hole reaching 280m. In the same period, 12 DD holes for 2,174m were also drilled to provide detail on lithology and structure. Drilling is continuing.

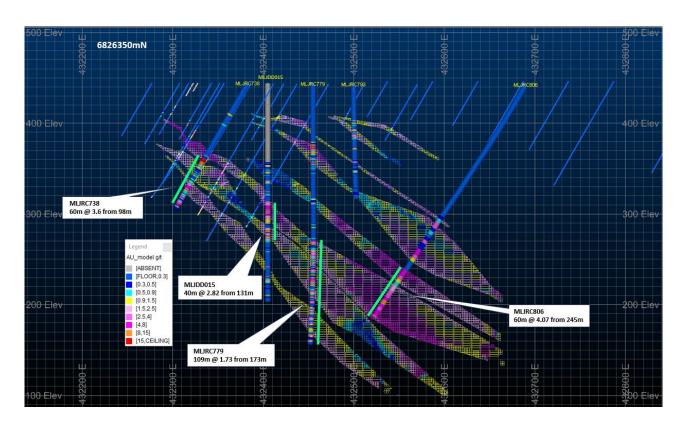
Some 52% of the resource is classified in the Indicated Category – this is predominantly the near surface material where good drill coverage exists.

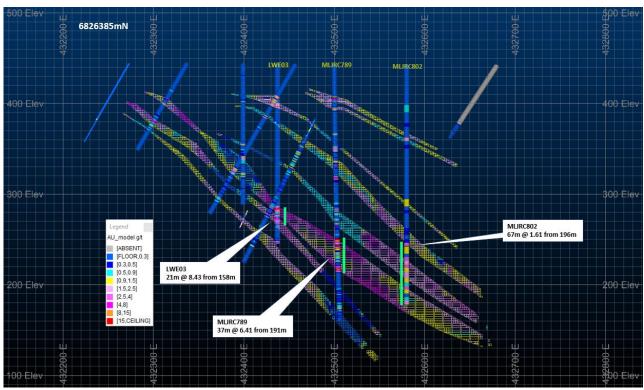
Figure 5. Lady Julie North 4 plan showing resource block grades and 3 drill sections



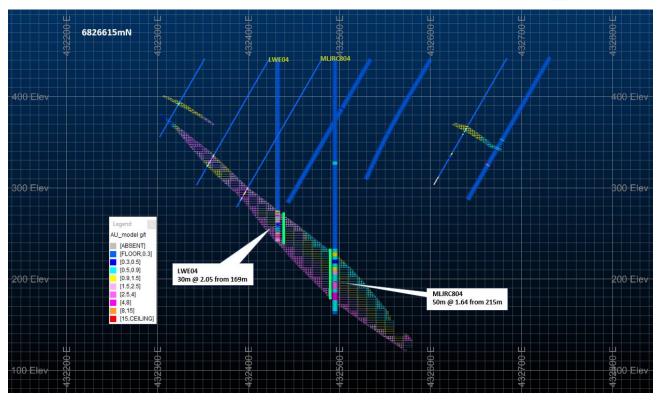


Figures 6 a), b), c). Lady Julie North 4 cross sections showing main gold intersections, resource model with block grades

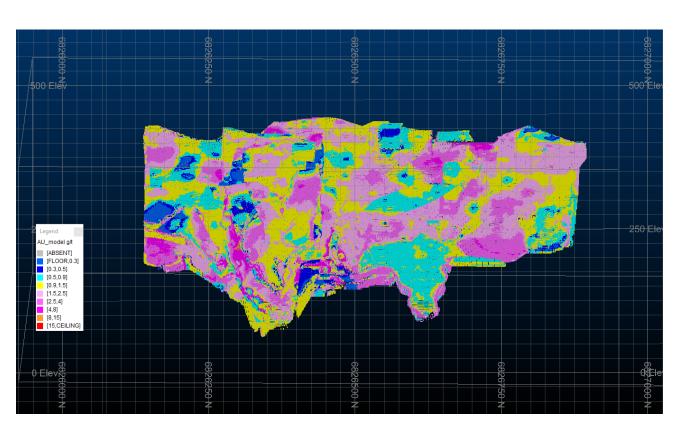








Figures 7. Lady Julie North 4 Long Section showing resource model with block grades.





### **Technical Summary of the Mineral Resource Estimate**

Drilling at the various deposits has been by a variety of methods, the drill holes used in the modelling of each deposit are summarised below. In general, all holes are used to assist in geological interpretation, while DDH (Diamond), RC (Reverse Circulation) and RAB (Rotary Air Blast) are used for grade estimation.

Deposit	Total Metres	Number of Holes
Hawks Nest 9	66,654	1,093
Lady Julie	111,987	1,730
Hawks Nest 3	10,306	249
Hawks Nest 5	6,471	163
Mount Jumbo	28,508	506
Homeward Bound S	11,412	413
Total	235,338	4,154

### **Drill Hole Summary**

Historical drilling was generally RAB and Air Core (AC) for initial exploration with most follow up and infill work being carried out using RC. Magnetic has used RC for its recent drilling programs at HN9 and Lady Julie.

One metre RC samples are assayed using a 50g charge and a fire assay method with an AAS finish which is regarded as appropriate. The technique provides an estimate of the total gold content.

Industry standard standards and duplicates are used by the NATA registered laboratory conducting the analyses.

Primary data is entered into an in-house database and checked by Magnetic's database manager.

The data is subsequently exported to Micromine format files and imported into Micromine 2022 software for further validation, statistical analysis and resource estimation. Mineralisation styles in the Laverton-Leonora deposits include:

- quartz veining and stock working in felsic porphyry
- shear-hosted quartz veins on porphyry-amphibolite contacts
- Pyritic polymictic breccias
- Vughy silica-pyrite alteration
- Silicified, quartz-veined shear zones in ultramafic

Mineralised domains at HN9, LJC and LJN4 have been digitised using mineralised trends. Drill data was flagged inside domain boundaries and composited to 1m intervals. Geostatistical analysis was completed to determine top cut of grades. A Dynamic Anisotropy Modelling methodology was adopted with inverse distance squared for grade estimation.

Model validation has been carried out by comparison of average grades of models and drill hole data, visual examination of models vs drill hole data on section and plan, and swathe plots. All methods have shown good agreement between models and data.



The Mineral Resources have been classified in the Indicated and Inferred categories, in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code).

A range of criteria has been considered in determining this classification including:

- Geological continuity;
- Data quality;
- Drill hole spacing;
- Modelling technique;
- Estimation properties including search strategy, number of informing data and average distance of data from blocks.



#### **COMPETENT PERSON STATEMENT**

The information in this report that relates to the Laverton and Homeward Bound Mineral Resource Estimates is based on and fairly represents, information which has been prepared by Mr Mat Edwards BSc (Hons), MAIG employed by Blue Cap Mining who is a consultant to the Company. Mat Edwards 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'. Mat Edwards consents to the inclusion of this information in the form and context in which it appears in this report.

The information in this report that relates to Exploration Results is based on information compiled by George Sakalidis BSc (Hons), who is a member of the Australasian Institute of Mining and Metallurgy. George Sakalidis is a Director of Magnetic Resources NL. George Sakalidis 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'. George Sakalidis consents to the inclusion of this information in the form and context in which it appears in this report.

This announcement has been authorised for release by Managing Director George Sakalidis. For more information on the company visit <a href="https://www.magres.com.au">www.magres.com.au</a>

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The Information in this report that relates to:

- Promising 200m wide 0.7g/t soil geochemistry associated with extensive 1km long NS porphyries at newly named Hawks Nest 9. MAU ASX Release 15 October 2018
- 2. 1.1km NNW Mineralised Gold Intersections at HN9. MAU ASX Release 7 November 2018
- 3. Surface drilled Mineralisation extends to significant 1.5km at HN9. MAU Release 20 November 2018
- 4. Hawks Nest Delivers with 8m@4.2g/t Gold from 4m MAU Release 29 January 2018
- 5. Robust Near Surface High-grade Zone of 7m @ 4.5g/t Gold from 5m from 1m splits. MAU Release 5 March 2018
- 6. Hawks Nest Geochemical Survey Outlines Potential Extensions to the Prospective 7m @ 4.5g/t Gold Intersected. MAU Release 20 March 2018
- An 865m RC drilling programme started testing promising 7m at 4.5g/t gold and eight separate anomalous soil geochemical targets at HN5. MAU Release 10 May 2018
- 8. Large Gold Mineralised Shear Zone Greater Than 250m at Hawks Nest 5. MAU Release 9 June 2018
- 9. Gold Geochemical Target Zone Grows to Significant 2km in Length at HN9. MAU Release 7 January 2019
- 10. Significant 2km Gold Target is open to the East on 83% of the 24 Lines Drilled at HN9. MAU Release 4 February 2019
- 11. Significant 2.1km Gold Target Still open to North, South, East and at Depth. MAU Release 25 March 2019
- 12. Gold Target Enlarged By 47% to Significant 3.1km and is still open to the North, East and at Depth. MAU Release 22 May 2019
- 13. HN9 Prospective Zone Enlarged by 170% with Lady Julie Tenements. MAU Release 24 June 2019
- 14. 200m-Wide Gold Zone Open to The Northeast and Very Extensive Surface Gold Mineralisation Confirmed at HN9 Laverton. MAU Release 27 June 2019
- 15. 200m Wide Gold Zone Open to the North and New 800m Anomalous Gold Zone defined at HN9 Laverton. MAU Release 4 September 2019
- 16. Highest Grades Outlined at HN9 and are being Followed Up and Lady Julie Shallow Drilling Commencing Shortly. MAU Release 14 October 2019
- 17. Central Part of HN9 Shows Significant Thickening of The Mineralised Zone to 28m. MAU Release 28 November 2019
- 18. Multiple Silicified Porphyry Horizons from Deep Drilling and 57m Mineralised Feeder Zone at MAU Release 17 January 2020
- 19. Very High-Grade Intersection of 4m at 49g/t Adjacent to 70m Thick Mineralised Feeder Zone MAU Release 5 February 2020
- 20. 20 km of thickened porphyry units outlined by ground magnetic interpretation at Hawks Nest 9. MAU Release 9 March 2020
- 21. Further Thick Down Plunge Extensions and NW Extension Shown up at HN9. MAU Release 18 May 2020
- 22. Four Stacked Thickened Porphyry Lodes at HN9. MAU Release 3 August 2020
- 23. High-Grade Intersections in Thickened Zone at HN9. MAU Release 18 September 2020
- 24. Follow up of 16m at 1.16g/t gold from 64m at Lady Julie MAU Release 2 November 2020
- 25. Shallow Seismic searching for multiple thickened lodes MAU Release 16 November 2020



- 26. New thicken zone in southern part of Hawks Nest 9. MAU Release 1 December 2020
- 27. Two RC rigs now operating at HN9 and Lady Julie. MAU Release 11 January 202.
- 28. Nine gold targets defined over 14km at HN5, HN6, HN9 and Lady Julie. MAU Release 3 June 2021
- 29. Lady Julie delivers with 38m at 3.6g/t gold from 32m. MAU Release 23 June 2021
- 30. Lady Julie North expanded with purchase of tenements. MAU Release 8 June 2021
- 31. Multiple thick and high-grade zones located at Lady Julie. MAU Release 16 August 2021
- 32. Multiple thick high-grade intersections from surface at Lady Julie. MAU Release 14 September 2021
- 33. Thick high-grade intersections are open to the southeast at Lady Julie. MAU Release 22 October 2021
- 34. High-grade intersections and vertical shoots at Lady Julie. MAU Release 10 January 2022
- 35. Thicker intersections continue to grow Lady Julie1 and 4 and Homeward Bound. MAU Release 21 February 2022
- 36. Ten high priority targets & thick intersections Lady Julie. MAU Release 12 April 2022
- 37. Second parallel mineralised structure at Lady Julie Central. MAU Release 11 May 2022
- 38. Lady Julie North 4 delivers with thick intersections that are open at depth. MAU Release 30 May 2022
- 39. Maiden Mineral Resource Estimate. MAU Release 27 June 2022
- 40. Thick 56m at 2.2g/t gold at Lady Julie North 4. MAU Release 20 July 2022
- 41. Drilling commences at Lady Julie North 4. MAU Release 15 August 2022
- 42. Blue Cap Mining to undertake early works. MAU Release 14 September 2022
- 43. Mineralisation expands both to north and east at Lady Julie North 4. MAU Release 27 September 2022
- 44. Early Works progress at Laverton Project. MAU Release 24 October 2022.
- 45. High grade thick intersections at Lady Julie projects. MAU Release 17 November 2022.
- 46 Thickest Intersections to Date at Lady Julie North 4. MAU Release 21 December 2022.
- 47 Positive metallurgical results from Lady Julie. MAU Release 25 January 2023
- 48 Expands mineral resource estimate. MAU Release 3 February 2023
- 49 Early works good progress at Laverton project. MAU Release 15 February 2023
- 50 Thick intersections remain open at depth at Lady Julie North 4. MAU Release 20 February 2023
- 51 Thickest intersection of 96m at 1.23g/t Au at Lady Julie North 4. MAU Release 11 April 2023
- 52 Further thick intersections and deeper drilling completed at Lady Julie North 4. MAU Release 14 June 2023
- 53 Best thick intersections to date of 60m at 3.6g/t from 96m at lady Julie North 4. MAU Release 23 June 2023
- 54 High-grade of 30m at 5.53g/t within 52m thick breccia zone. MAU Release 14 July 2023
- 55 Intersection of 31m at 3.5g/t from 160m extends Lady Julie. MAU Release 31 July 2023
- 56 112m at 1.8g/t gold from 172m extends Lady Julie North 4. MAU ASX Release 7 August 2023
- 57 40m at 7.2g/t Au from 192m extends Lady Julie North 4. MAU ASX Release 22 August 2023
- 58 50m thick gold rich breccia and silica pyrite zones at LJN4. MAU ASX Release 8 September 2023
- 59 Thick intersections extend mineralised zones at Lady Julie North 4. MAU ASX Release 26 September 2023
- 60 Best thick intersections to date 126m at 2.8g/t at LJN4. MAU ASX Release 19 October 2023.

All of which are available on www.magres.com.au

This announcement contains forward-looking statements which involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.



# JORC Code, 2012 Edition - Table 1

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

Criteria	JORC Code explanation	Commentary
Criteria  Sampling techniques	<ul> <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</li> </ul>	<ul> <li>The table below summarises the different types of drilling that have been carried out at the project</li> <li>Hole Type Holes Metres %</li> <li>RC 2289 179,168 62.6%</li> <li>RAB 1615 46,722 16.3%</li> <li>AC 980 47,613 16.6%</li> <li>DDH 38 6,257 2.0%</li> <li>RCD 5 893 0.3%</li> <li>Unk 16 396 0.2%</li> <li>PER 17 718 0.3%</li> <li>VAC 735 4494 1.6%</li> <li>Total 5,695 286,261</li> <li>More than 75% of RC drilling (which is the basis of the resource estimate) has been completed by Magnetic Resources. The remainder were drilled by more than a dozen other exploration companies.</li> <li>All the reported historical drilling and relevant</li> </ul>
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.	<ul> <li>All the reported historical drilling and relevant sampling procedures, QAQC and analytical methods etc. are referred to in the original WAMEX reports (references in the main text of ASX release of 7 November 2018).</li> <li>For Magnetic's RC drilling, a 1 metre split is taken directly from a cone splitter mounted beneath the rig's cyclone. The cyclone and splitter are cleaned regularly to minimize contamination.</li> </ul>	
	<ul> <li>Sampling and QAQC procedures are carried out using Magnetic's protocols as per industry sound practice.</li> <li>Historic RC drilling methodology has obtained bulk 1 metre samples from which composite 4m</li> </ul>	
		samples were prepared by spear sampling of the bulk 1m samples. 3kg of the composite sample was pulverized to produce a 50g charge for fire assay for gold. The assay results of the composite samples are used to determine which 1m samples from the rig's cyclone and splitter are selected for fire assay using the same method.
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, openhole 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</li> </ul>	<ul> <li>Rotary air blast (RAB) drilling with a blade bit.</li> <li>Reverse Circulation (RC) drilling was carried out using a face sampling hammer with a nominal diameter of 140mm.</li> <li>Aircore (AC) drilling.</li> </ul>



Criteria	JORC Code explanation	Commentary
	what method, etc).	<ul> <li>Limited Diamond Core drilling. Core sizes range from PQ, HQ to NQ depending on conditions. Core is oriented where practicable.</li> </ul>
Drill sample recovery		<ul> <li>RC sample recoveries are visually estimated qualitatively on a metre-by-metre basis. Core recovery is measured and recorded.</li> </ul>
	recovery and ensure representative nature of the samples.	<ul> <li>Various drilling additives (including muds and foams) have been used to condition the RC holes to maximize recoveries and sample quality.</li> </ul>
	<ul> <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> <li>Insufficient drilling and geochemical data is available at the present stage to evaluate potential sample bias. Drill samples are sometimes wet which may result in sample bias because of preferential loss/gain of fine/coarse material.</li> </ul>
Logging	<ul> <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> </ul>	<ul> <li>Lithology, alteration and veining is recorded and imported into the Magnetic Resources central database. The logging is of sufficient standard to support a geological resource.</li> </ul>
	<ul> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> </ul>	All drill holes were logged in full.
	<ul> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	
Sub-sampling techniques	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	RC samples are cyclone split to produce a 2-3kg sample. 4m composite samples are prepared by
and sample preparation	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	<ul> <li>tube sampling bulk 1m samples.</li> <li>Core samples are cut using a diamond saw and half core taken for assay, usually in 1m intervals.</li> </ul>
	<ul> <li>For all sample types, the nature, quality and</li> </ul>	<ul> <li>No field duplicates were taken.</li> </ul>
	appropriateness of the sample preparation technique.	<ul> <li>Sample sizes are appropriate for the grain size being sampled.</li> </ul>
	<ul> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	
	<ul> <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> </ul>	
	<ul> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	
Quality of assay data and laboratory	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> </ul>	<ul> <li>RC samples are assayed using a 50g charge and a fire assay method with an AAS finish which is regarded as appropriate. The technique provides an estimate of the total gold conten.t</li> </ul>
tests	<ul> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis</li> </ul>	<ul> <li>Industry standard standards and duplicates are used by the NATA registered laboratory conducting the analyses</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <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</li> </ul>	Certified reference material standards are routinely inserted into the sample stream.
Verification of sampling and assaying	<ul> <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> <li>No independent verification of drill intersections has yet been carried out.</li> <li>Twin holes are planned to be drilled.</li> <li>Primary data is entered into an in-house database and checked by the database manager.</li> <li>No adjustment of assay data other than averaging of repeat and duplicate assays</li> <li>No verification of historically reported drilling has been carried out</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Drill collars located by hand- held GPS with an accuracy of +/- 5m.</li> <li>Grid system: MGAz51 GDA94.</li> <li>Topographic control using regional DEM data.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drilling was carried out at various spacings at the different deposits and varies from 20m section spacing to 0m section spacing at HN9 prospect. For LJC and LJN4, drill section spacing ranges from 25 to 50m.</li> <li>1m RC samples were composited into 4m composite samples for preliminary assaying.</li> <li>1m RC samples were then analysed when 4m composites returned positive results.</li> <li>Core samples were normally sampled at 1m intervals.</li> <li>Data spacing and distribution is sufficient to establish geological and grade continuity appropriate for Mineral Resource estimation.</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.</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</li> </ul>	<ul> <li>At all deposits drilling was carried out orthogonal to the known mineralisation trends and where possible holes were angled to obtain true-width intersections. A limited number of vertical diamond holes were completed at LJN4.</li> <li>There is currently insufficient evidence to indicate any sampling bias.</li> </ul>



Criteria	JORC Code explanation	Commentary
	assessed and reported if material.	
Sample security	<ul> <li>The measures taken to ensure sample security.</li> </ul>	<ul> <li>Samples were stored in the field prior to dispatch to Perth using a commercial freight company.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>No audits or reviews of the sampling techniques and data from historical drilling have been carried out.</li> </ul>



# **Section 2 Reporting of Exploration Results**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <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> <li>A full list of all Tenement ID's is provided in the body of the report.</li> <li>All tenements are held 100% by Magnetic Resources NL and are in good standing.</li> <li>All are granted tenements with no known impediments to obtaining a licence to operate.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>The HN9 and Lady Julie areas have been subject to historical exploration as described in the body of the report.</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>At HN9 and LJ Central two main gold mineralization styles have been observed: quartz veining and stock working in felsic porphyry and shear-hosted quartz veins on porphyry-amphibolite contacts.</li> </ul>
		<ul> <li>At LJN4 significant mineralization is hosted by pyritic polymictic breccias, silica-pyrite alteration and by silicified, quartz veined ultramafics.</li> </ul>
		<ul> <li>Mineralisation at Homeward Bound South is associated with the Federation Shear Zone.</li> </ul>
Drill hole Information	<ul> <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:</li> <li>easting and northing of the drill</li> </ul>	<ul> <li>Exploration results are not being reported in this Mineral Resource Report and have been reported in previous reports.</li> </ul>
	hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	
	<ul> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul>	
	<ul> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain</li> </ul>	



Criteria	JORC Code explanation	Commentary
	why this is the case.	
Data aggregation methods	<ul> <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>	No weighting or cutting of gold values, other than averaging of duplicate and repeat analyses.
Relationship between mineralisation widths and intercept lengths	<ul> <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> <li>Exploration results are not being reported in this Mineral Resource Report.</li> <li>Where possible, drill holes are angled to intersect mineralization close to at right angles to the dip, with intersected width estimated to be close to true width</li> <li>For LIN4 vertical holes, true width is estimated to be 70% of intersected width.</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>	<ul> <li>Exploration results are not being reported in this Mineral Resource Report.</li> <li>Maps and sections appropriate to the reporting of a mineral resource are included in the report.</li> </ul>



Criteria	JORC Code explanation	Commentary
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 avoiding misleading reporting of Exploration Results.</li> </ul>	<ul> <li>Exploration results are not being reported in this Mineral Resource Report.</li> <li>.</li> </ul>
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         <ul> <li>size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul> </li> </ul>	<ul> <li>No additional work beyond that noted in the 25 January 2023 ("Metallurgical Results Lady Julie") report has been undertaken.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> </ul>	<ul> <li>Extensional Infill drilling is on-going and planned at LJN4.</li> </ul>
	<ul> <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>	



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

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>	<ul> <li>The drill hole database is managed and validated by Magnetic Resource NL. Drill core is logged and codes are validated during entry. Assay data is provided digitally by the laboratory and automatically uploaded to the database.</li> <li>The data is stored in an MS Access database system and exported when required.</li> <li>Drill hole data was provided to Blue Cap Mining in MS Access database system.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken</li> </ul>	<ul> <li>No Site visits were undertaken during the new drill programs.</li> </ul>
Geological interpretation	<ul> <li>indicate why this is the case.</li> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>There is reasonable confidence in the interpretation of the porphyries, shear zones and breccia zones, and in the continuity of the various domains. Both drilling and mapping of old workings where possible have been utilised in arriving at an understanding of the orientation and nature of the mineralisation.</li> <li>3D geological models have been constructed at HN9, LJ Central and LJN4 to assist in control of interpolation of gold grades.</li> </ul>
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 areas containing the mineralisation vary by deposit and are summarised below.  Deposit Length Width Depth Hawks Nest 9 2,100 200 130 Lady Julie 6,600 850 190 Hawks Nest 3 650 80 60 Hawks Nest 5 600 50 90 Mount Jumbo 1,600 200 200 Homeward Bound S 2,300 200 120  Mineralisation extends up to 250m below the topographic surface.
Estimation and modelling techniques	<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer</li> </ul>	<ul> <li>Geological block models were constructed using Datamine software.</li> <li>The estimation process was carried out using Inverse distance functions in Datamine software.</li> <li>The search ellipse was 60x40x10m,</li> <li>The minimum number of samples is 5 in pass 1, 5 in pass 2 and 1 in pass 3. Maximum number of samples is</li> </ul>



Criteria	JORC Code explanation	Commentary
Citteria	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.	10 in all passes.  • A top cut for Au was determined from review of log probability plots. It varies between 10 and 32 g/t depending on domain and deposit.  • The estimation process was validated by comparing global block grades with the average composite grades, visual checks comparing block grades with raw assay data and swathe plots. All methods showed good correlation between drill data and block model.  • Estimation of sulphur for acid mine drainage characterization has been carried out at HN9, LJ Central and LJN4.
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>	<ul> <li>All tonnages are estimated on a dry basis and moisture content is not considered in the resource estimate.</li> </ul>
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul> <li>The resource has been reported at 0.5 g/t Au cutoff.</li> <li>This is based on a potential incremental processing cost and estimated gold recovery only.</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</li> </ul>	<ul> <li>The resource is reported in-situ with no dilution or mining recovery factors applied.</li> </ul>



Criteria	JORC Code explanation	Commentary
	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.	
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 this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	<ul> <li>Metallurgical parameters have not been factored into this Mineral Resource Estimate.</li> <li>For the purposes of generating optimal pits to assess whether there are reasonable prospects of extraction of the resource, a plant recovery of 93%/93%/92% for oxide/transition/fresh respectively has been assumed on the basis of metallurgical testwork.</li> </ul>
Environmental factors or assumptions	<ul> <li>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.</li> </ul>	Environmental considerations have not been factored into this Mineral Resource Estimate.
Bulk density	<ul> <li>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.</li> </ul>	<ul> <li>Density is assigned on the basis of oxidation state</li> <li>Transported 1.60 t/m³.</li> <li>Oxide 1.90 t/m³.</li> <li>Transition 2.32 t/m³.</li> <li>Fresh 2.78 t/m³.</li> </ul>
	<ul> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and</li> </ul>	



Criteria	JORC Code explanation	Commentary
	differences between rock and alteration zones within the deposit.  • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>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).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>The Mineral Resource has been classified in the Indicated and Inferred categories, in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code).</li> <li>A range of criteria has been considered in determining this classification including:         <ul> <li>Geological continuity;</li> <li>Data quality;</li> <li>Drill hole spacing;</li> <li>Modelling technique;</li> <li>Estimation properties including search strategy, number of informing data and average distance of data from blocks.</li> </ul> </li> <li>Indicated material is generally assigned to blocks within areas of ~20m to 25m drill spacing, while Inferred material has up to ~50m drill spacing. Blocks with more widely spaced drill spacing are estimated but are not classified as part of the Mineral Resource.</li> <li>The mineral resource estimate appropriately reflects the Competent Person's views of the deposit.</li> </ul>
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	The current model has not been audited by an independent third party.
Discussion of relative accuracy/confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> </ul>	<ul> <li>The resource estimate is deemed to be an accurate reflection of both the geological interpretation and tenor of mineralisation within the deposit.</li> <li>The mineral resource statement relates to a global tonnage and grade estimate. Grade estimates have been made for each block in the block model.</li> <li>No production data is available.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	