RAMELIUS RESOURCES

ASX RELEASE

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www.rameliusresources.com.au

RAMELIUS RESOURCES LIMITED
Registered Office
Level 1, 130 Royal Street
East Perth WA 6004
Tel +61 8 9202 1127
PO Box 6070
East Perth, WA 6892

15 September 2023

PENNY GOLD MINE UPDATE

Mineral Resource increases by 28%

HIGHLIGHTS

Mining & Haulage

- Decline extended to a level below the 1288 ore drive, which has since commenced (refer Figure 3)
- Cemented Rock Filling (CRF) plant commissioned
- Ore haulage ongoing with road-train capacity matching mine production

Exploration

- Diamond drilling is ongoing with most recent results received for Penny West including:
  - **3.3m at 49.1g/t Au** from 389.0m
  - **1.1m at 16.2g/t Au** from 321.6m
- Drilling continues in the Penny West and North areas with next results pending mid-November 2023 (refer Figure 3)

Updated Mineral Resource

- Penny North
  - 320,000t @ 28g/t Au for 290,000oz
- Penny West
  - 120,000t at 7.6g/t Au for 30,000oz
- Total Penny
  - **440,000t at 22g/t Au for 320,000oz**
- **70,000oz or 28% increase** over the June 2023 reported Mineral Resource[1]

Ramelius Resources Limited (**ASX: RMS**) ("**Ramelius**", **the Company**") is pleased to provide an update on the Penny gold mine within its portfolio of gold assets in Western Australia.

Managing Director, Mark Zeptner, today said:

"It is pleasing to see mining and ore haulage progressing well, but we are also very encouraged to see resource extensions from recent exploration drilling. Whilst mine design and ore reserve work is currently underway and not due for completion until calendar year end, the potential extension of the Penny mine plan well into FY26 is exciting for the business."

[1] See 'Resources and Reserves Statement 2023' ASX Release 14 September 2023

PENNY GOLD MINE (MT MAGNET)

Mining & Haulage

Mine development is advancing to plan with the seventh ore drive level well advanced which is increasing the number of stope work areas available. The CRF plant and associated backfill system has been commissioned. Steeper, higher grade sections of the orebody have been accessed which simplifies stope design and execution.

The new haulage contractor has established full resourcing onsite and is moving ore to Mt Magnet in a timely manner that matches mine production rates. The 1288RL ore drive is in progress with very high grades seen in a number of development faces such as the one shown below:

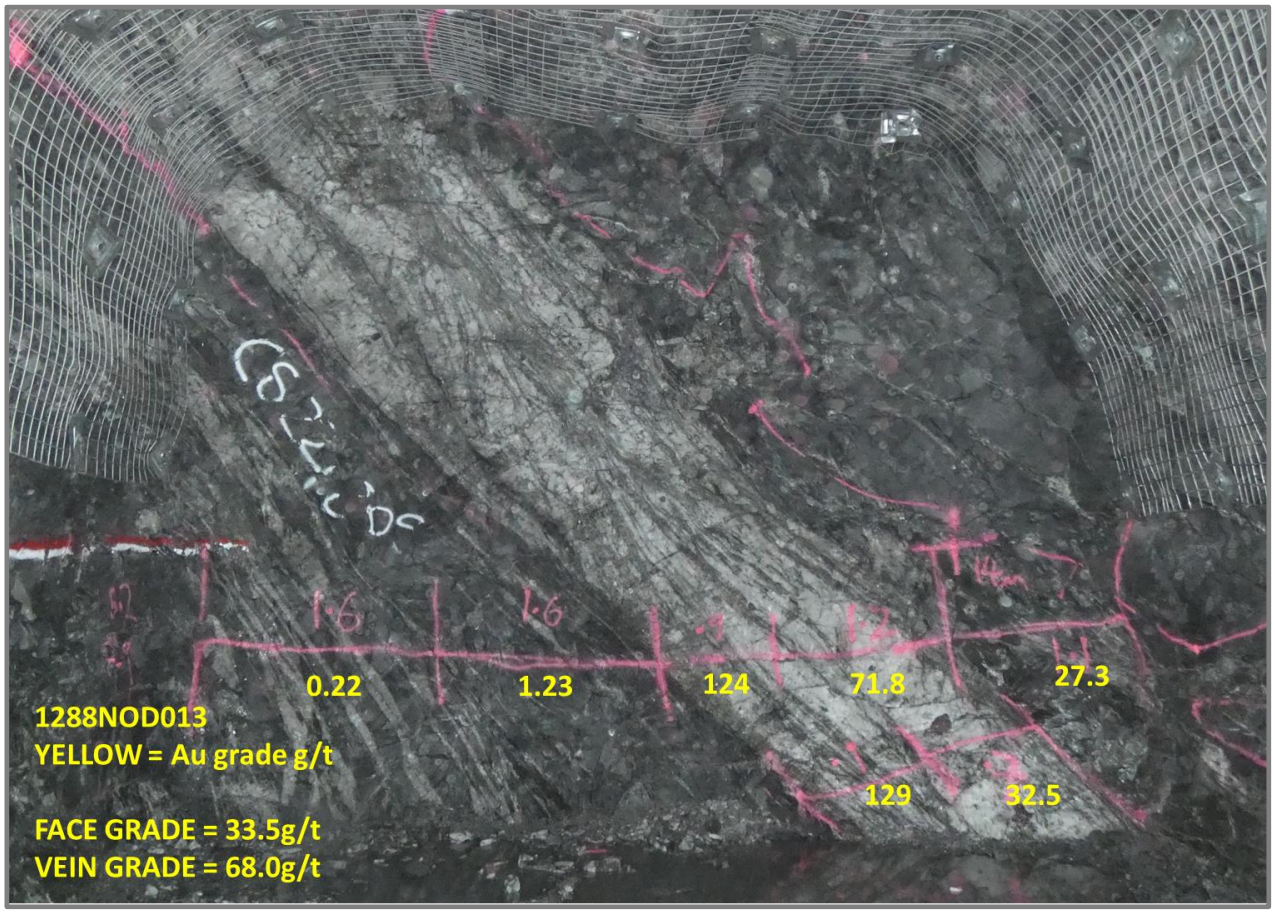

Figure 1: 1288 north ore drive, face #13 – face grade of **33.5g/t**

Exploration

Approximately 15,300m of underground drilling has been conducted from April to August 2023 focusing on Penny North strike extension and Penny West resource definition infill and down-dip extents. Many of the results have been received which have resulted in a 90-metre increase in strike in the southern area of the resource model for Penny North. Penny West drill results have resulted in a refinement of the high-grade plunge in the northern portion of the quartz vein and moderate extension to the down-dip and southern portion of the lode.

Exploration continues at Penny targeting strike extents to the north of the current model and west of the known resource area. Proposals to drill additional targets between the offset of the two lodes and deeper exploration holes from a lower drill position to test down-dip gaps in the drilling are also being considered for future work within the current financial year.

Previously reported drill hole results from Penny North are shown in Figure 4 as well as Appendix 1, and include the following:

- **6.1m at 44.5g/t Au** from 141m in PNDD003

- **2.1m at 131g/t Au** from 278.6m in PNDD008
- **4.5m at 75.2g/t Au** from 302.5m in PNDD009
- **1.4m at 6.36g/t Au** from 315.0m in PNDD011
- **3.5m at 7.64g/t Au** from 277.0m in PNDD012
- **5.0m at 10.8g/t Au** from 254.8m in PNDD013

Results from Penny West also indicate significant mineralisation within the high-grade plunges predicted by the model, with previously reported results including:

- **4.9m at 4.37g/t Au** from 199.9m in PWDD001
- **1.3m at 57.5g/t Au** from 299.1m in PWDD009
- **3.9m at 8.55g/t Au** from 248.1m in PWDD011

And new results received since including:

- **1.1m at 16.2g/t Au** from 321.6m in PWDD019
- **1.2m at 3.98g/t Au** from 220.0m in PWDD028
- **3.3m at 49.1g/t Au** from 389.0m in PWDD031

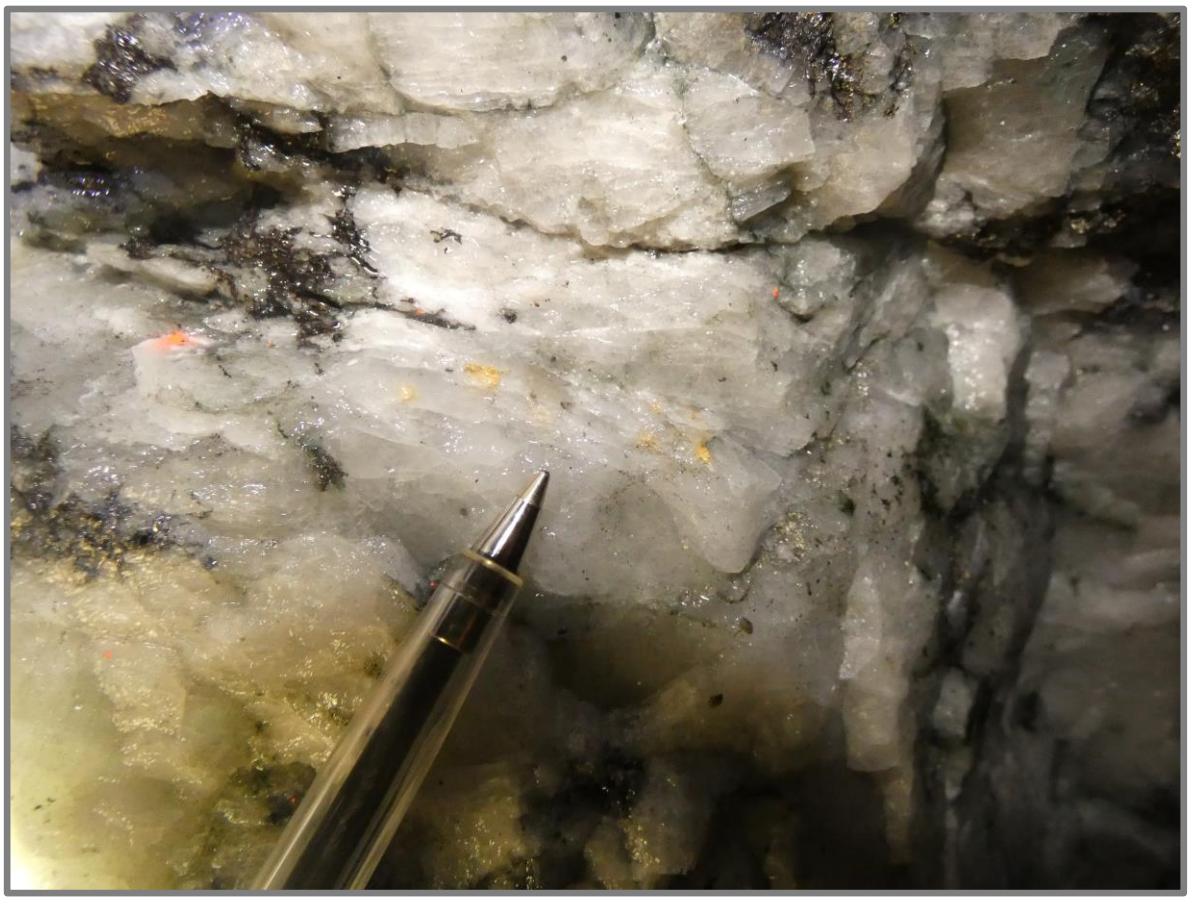

Figure 2: Finely disseminated visible gold ranging in size from 0.5-1.0mm in a recent development face (1288NOD10) within laminated quartz vein host rock at Penny North with abundant massive sulphides (pyrrhotite+galena+pyrite) comprising up to 40% of the sample volume associated with the gold mineralisation.

Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.

Penny North & West Geology

The Penny deposit lies within the Archaean-aged Youanmi greenstone belt. Host stratigraphy for the deposit is a sequence of steeply dipping mafic and ultramafic rocks with minor felsic intrusives. Gold mineralisation is associated with steeply east dipping, quartz-sulphide veins typically 1m to 4m in width. The lodes are visually distinct and typically display sharp boundaries to the mineralisation. Minor zones of discontinuous mineralisation occur in the hanging wall of the main lodes, although these veinlets and structures are considered immaterial and have been excluded from the resource estimation.

Local stratigraphy consists of, from west to east, a thick footwall meta dolerite/gabbro, a foliated felsic schist, interpreted to be a granodiorite intrusive unit, a foliated chloritic amphibolite, an ultramafic unit, and a hanging wall meta mafic unit.

The mineralised lodes are largely hosted within the granodiorite unit or at the granodiorite-amphibolite contact. The lodes appear to slightly cross-cut stratigraphy and transgress into the amphibolite unit toward the north. Although the Penny West and Penny North lodes are spatially separate and offset by approximately 60m in a general northeast direction, a similar stratigraphic setting and transgression occurs for both lodes. Immediate wall rocks are typically mylonitic with some albite and sericite alteration.

The gold mineralisation at Penny is hosted within a persistent, narrow, steeply east dipping (65° to 80°) quartz-sulphide lode containing both disseminated and coarse gold with grades ranging up to hundreds of grams per tonne. The Penny North lode extends over 400m in strike while Penny West extends nearly 300m. Penny North varies in thickness from 1 to 4m. The Penny West vein is slightly thinner, ranging from 1 to 3m in width.

Both quartz veins are variably massive, laminated or brecciated with a highly variable sulphide assemblage of pyrite, pyrrhotite, galena, chalcopyrite and sphalerite. Some sulphide zones are semi-massive and can comprise 50 - 90% sulphide. Visible gold can be seen proximal to galena and sphalerite. Pb anomalism is significant with lode Pb grade up to 1%. Ag grade is also significantly higher than typical Archaean lode gold deposits and can be up to a 1:1 ratio with Au.

Updated Mineral Resource

The deposits have been the focus of exploration and resource definition drilling since April 2023. New drilling comprises of 44 underground diamond holes for approximately 15,300m. This drilling has been carried out orthogonally to strike direction utilising a diamond drill cuddy that was developed for this purpose. The recent drill results at both deposits and underground development of the lode at Penny North have indicated that the lodes are relatively thinner than the previous interpretations by up to 1m, but also significantly higher grade than previously estimated. This has resulted in an updated model that has reduced the overall tonnage slightly while significantly increasing the ounces contained within the estimation.

Interpretation was carried out incorporating the results of the recent drilling with underground face data to produce an updated mineral resource estimate. The quartz vein mineralisation was domained as the primary host for mineralisation for both lodes. The hanging wall and footwall of the domains were snapped to the surveyed sample intervals and pickup of the veins within mining developments.

Samples were grouped by domain, composited to 1m intervals, and gold was estimated using anisotropic searches and Ordinary Kriging. A topcut of 120g/t was utilised at just above the 96 percentile after interrogation of assay domain statistics for both lodes. Densities were applied by rock type and weathering. Block size is 5mE x 10mN x 5mRL with minimum sub-blocks of 0.5mE x 1mN x 0.5mRL.

Resource categorisation was applied by using the underground development levels at Penny North to classify the Measured category while envelopes that reflected drill density, thus geological and grade continuity, were used for the Indicated and Inferred resources. The resource model is reported at a cut-off grade of >2.0g/t and has been depleted as of August 2023.

Table 1 – Penny Mineral Resource

Lode	Measured			Indicated			Inferred			Total		
	tonnes	g/t	ounces	tonnes	g/t	ounces	tonnes	g/t	ounces	tonnes	g/t	ounces
Penny North	48,000	24	37,000	190,000	30	190,000	78,000	26	65,000	320,000	28	290,000
Penny West				110,000	7.9	29,000	9,000	4.4	1,300	120,000	7.6	30,000
Total	**48,000**	**24**	**37,000**	**310,000**	**22**	**220,000**	**87,000**	**24**	**67,000**	**440,000**	**22**	**320,000**

Figures rounded to 2 significant digits. Rounding errors may occur.

Ramelius will now evaluate the new mineral resource estimate for extension of the underground mine plan at Penny and contribution to an updated Ore Reserve by calendar year end.

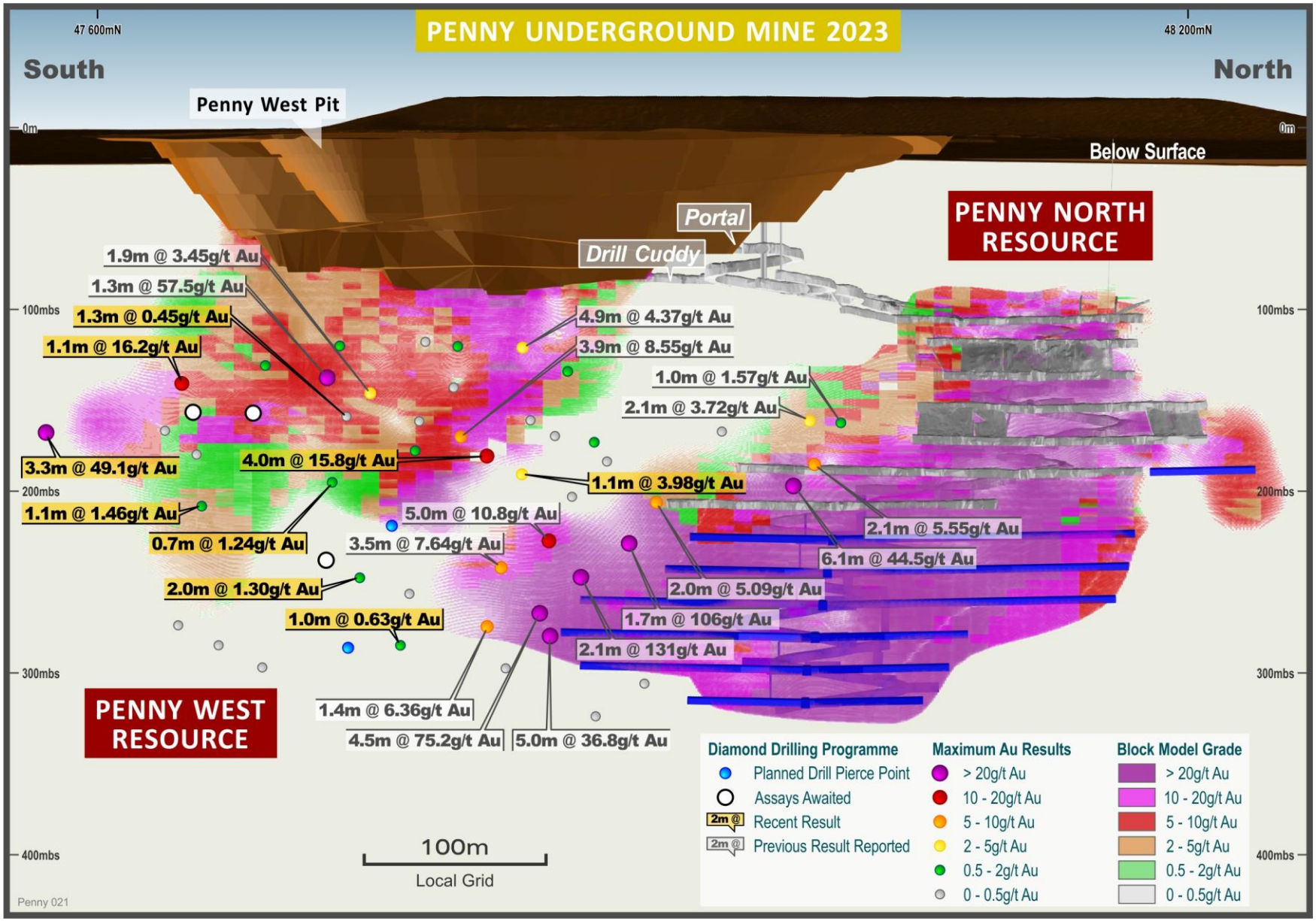

Figure 3: Penny underground mine and diamond drilling programme 2023

This ASX announcement was authorised for release by the Board of Directors.

For further information contact:

Investor enquiries:

Mark Zeptner

Managing Director
Ramelius Resources Ltd
Ph: +61 8 9202 1127

Tim Manners

Chief Financial Officer
Ramelius Resources Ltd
Ph: +61 8 9202 1127

Media enquiries:

Luke Forrestal

Director
GRA Partners
Ph: +61 411 479 144

ABOUT RAMELIUS

Figure 4: Ramelius' Operations & Development Project Locations

Ramelius owns and operates the Mt Magnet, Edna May, Marda, Tampia and Penny gold mines, all of which are located in Western Australia (refer Figure 4). Ore from the high grade Penny underground mine is hauled to the Mt Magnet processing plant, where it is blended with ore from both underground and open pit sources at Mt Magnet.

The Edna May operation is currently processing high grade underground ore from the adjacent underground mine as well as ore from the satellite Marda and Tampia open pit mines. The Symes project has recently received final approvals and ore haulage to Edna May will commence shortly.

In January 2022, Ramelius completed the take-over of Apollo Consolidated Limited, taking 100% ownership of the Lake Rebecca Gold Project, now called the Rebecca Gold Project and shown on the map as Rebecca. In May 2023, Ramelius moved to compulsory acquire the remaining shares in Breaker Resources NL that it did not already own. Ramelius now has 100% ownership of Breaker, and as such, the Roe Gold Project is shown on the map as Roe and is just 50km from Rebecca.

The main asset of the takeover for Musgrave Minerals Ltd, the Cue Gold Project, is also shown on the above map, just to the north of Mt Magnet

FORWARD LOOKING STATEMENTS

This report contains forward looking statements. The forward looking statements are based on current expectations, estimates, assumptions, forecasts and projections and the industry in which it operates as well as other factors that management believes to be relevant and reasonable in the circumstances at the date such statements are made, but which may prove to be incorrect. The forward looking statements relate to future matters and are subject to various inherent risks and uncertainties. Many known and unknown factors could cause actual events or results to differ materially from the estimated or anticipated events or results expressed or implied by any forward looking statements. Such factors include, among others, changes in market conditions, future prices of gold and exchange rate movements, the actual results of production, development and/or exploration activities, variations in grade or recovery rates, plant and/or equipment failure and the possibility of cost overruns. Neither Ramelius, its related bodies corporate nor any of their directors, officers, employees, agents or contractors makes any representation or warranty (either express or implied) as to the accuracy, correctness, completeness, adequacy, reliability or likelihood of fulfilment of any forward looking statement, or any events or results expressed or implied in any forward looking statement, except to the extent required by law.

PREVIOUSLY REPORTED INFORMATION

Information in this report references previously reported exploration results and resource information extracted from the Company's ASX announcements. For the purposes of ASX Listing Rule 5.23 the Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

COMPETENT PERSONS

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Jake Ball, who is a Competent Person and Member of The Australasian Institute of Mining and Metallurgy. Jake Ball is a full-time employee of the company. Jake Ball has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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". Jake Ball consents to the inclusion in this report of the matters based on their information in the form and context in which it appears.

Attachment 1: Penny Underground Diamond Drilling Results – Penny, WA

Hole ID	Easting	Northing	RL	Az/Dip	F/Depth (m)	From (m)	To (m)	Interval (m)	Est. True Width (m)	g/t Au
PNDD001	676469	6807131	348	127/-5	118.4	102.4	103.4	1.0	0.5	1.57
PNDD002	676469	6807131	348	129/-15	138.0	126.4	128.5	2.1	0.8	5.55
PNDD003	676469	6807131	348	130/-18	165.0	141.0	147.1	**6.1**	2.0	**44.5**
PNDD004	676469	6807130	348	134/-5	154.9	113.1	115.2	2.1	1.0	3.72
PNDD005	676411	6806936	416	67/-25	237.3					NSR
PNDD006	676411	6806936	416	81/-33	264.0	224.2	226.2	2.0	0.5	5.09
PNDD007	676411	6806936	416	86/-34	318.0	252.4	254.1	**1.7**	0.4	**106**
PNDD008	676411	6806936	416	92/-35	312.1	278.6	280.7	**2.1**	0.5	**131**
PNDD009	676410	6806930	416	96/-36	346.0	302.5	307.0	**4.5**	0.9	**75.2**
PNDD010	676410	6806930	416	95/-37	375.0	315.4	320.4	**5.0**	1.0	**36.8**
PNDD011	676410	6806930	415	102/-37	474.2	315.0	316.4	1.4	0.9	6.36
PNDD012	676410	6806930	415	101/-34	383.0	269.6	275.0	5.4	3.5	3.69
PNDD012						277.0	280.5	3.5	2.2	7.64
PNDD013	676410	6806930	415	96/-35	329.2	254.8	259.8	**5.0**	3.1	**10.80**
PNDD014	676410	6806930	416	92/-32	275.8					NSR
PNDD015	676410	6806930	416	85/-30	241.0					NSR
PWDD001	676410	6806929	416	101/-10	224.7	199.9	204.8	4.9	3.1	4.37
PWDD002	676410	6806929	416	110/-9	230.5	204.2	207.0	2.8	1.8	0.60
PWDD003	676410	6806929	416	118/-9	245.0					NSR
PWDD004	676410	6806929	416	125/-10	273.1	261.0	262.7	1.7	1.1	1.21
PWDD005	676410	6806929	416	95/-15	233.4	189.9	192.7	2.8	1.8	1.99
PWDD005						200.2	202.0	1.8	1.1	2.06
PWDD007	676410	6806929	416	109/-14	236.0					NSR
PWDD008	676410	6806929	416	119/-14	261.0	255.5	257.4	1.9	1.2	3.45
PWDD009	676410	6806928	416	127/-13	321.5	299.1	300.4	**1.3**	0.8	**57.5**
PWDD010	676410	6806929	416	98/-19	243.4					NSR
PWDD011	676410	6806929	416	109/-19	273.4	248.1	252.0	3.9	2.5	8.55
PWDD011						256.0	259.0	3.0	1.9	1.70
PWDD012	676410	6806929	416	115/-16	270.4					NSR
PWDD013	676410	6806929	416	123/-15	297.0	287.9	289.2	1.3	0.5	0.45
PWDD014	676410	6806930	416	107/-25	326.4	277	281	**4.0**	1.9	**15.8**
PWDD015	676410	6806929	416	115/-22	300.1	283.0	286.4	3.4	2.2	1.38
PWDD016	676410	6806929	416	88/-23	291.0	239.0	240.0	1.0	0.6	1.64
PWDD017	676410	6806929	415	122/-32	510.0					NSR
PWDD018	676410	6806928	417	129/-9	341.6	278.1	280.9	1.4	0.9	1.10
PWDD019	676410	6806928	416	133/-8	334.9	321.6	322.7	1.1	0.6	16.2
PWDD020	676410	6806928	417	131/-15	365.1					NSR
PWDD021	676410	6806928	416	136/-12	377.3					NSR
PWDD022	676409	6806927	417	130/-19	392.5	341.9	343	1.1	0.7	1.46
PWDD023	676410	6806928	416	123/-21	371.0	295.8	296.5	0.7	0.4	1.24
PWDD024	676410	6806928	416	127/-27	431.7					NSR
PWDD025	676410	6806928	416	110/-27	338.8	317	318	1.0	0.7	0.63
PWDD026	676410	6806928	416	116/-29	395.6	329	331	2.0	1.2	1.3
PWDD027	676411	6806934	416	97/-26	286.2					NSR
PWDD028	676410	6806934	416	102/-28	323.4	220	221.2	1.2	0.5	3.98
PWDD029	676410	6806934	416	111/-32	416.5					NSR
PWDD030	676409	6806928	416	122/-29	442.9					NSR

PWDD031	676409	6806927	417	137/-10	398.1	389	392.3	**3.3**	1.1	**49.1**

Notes

Reported significant gold assay intersections (using a 0.50 g/t Au lower cut) are reported using +2m downhole intervals at plus 1g/t Au, with up to 2m internal dilution. Gold determination was by Fire Assay using a 50gm charge with AAS finishes and a lower limit of detection of 0.01 ppm Au. No topcut is applied. NSR denotes no significant result. Coordinates are MGA94-Z50.

JORC Table 1 Report for the Surface Aircore, RC and Diamond Drilling

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg '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.*	• At all projects potential gold mineralised RC and Diamond intervals are systematically sampled using industry standard 1m intervals, collected from reverse circulation (RC) drill holes and/or 4m composites from reconnaissance Aircore traverses. Surface and underground Diamond holes may be sampled along sub 1m geological contacts, otherwise 1m intervals are the default. • Drill hole locations were designed to allow for spatial spread across the interpreted mineralised zone. All RC samples were collected and cone-split to 3-4kg samples on 1m metre intervals. Aircore samples are speared from 1m interval piles on the ground or from 1m interval bags and are composited into 4m intervals before despatching to the laboratory. Single metre bottom of hole Aircore samples are also collected for trace element determinations. Diamond core is half cut along downhole orientation lines, with the exception of underground diamond drilling. Here whole core is despatched to the laboratory to maximise the sample size. Otherwise, half core is sent to the laboratory for analysis and the other half is retained for future reference. • Standard fire assaying was employed using a 50gm charge with an AAS finish for all diamond, RC and Aircore chip samples. Trace element determination was undertaken using a multi (4) acid digest and ICP- AES finish. Penny diamond hole and face samples collected since June 2023 were photon assayed using whole samples that were crushed to 90% passing 3.15mm and split into 500g aliquot jars for analysis.
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).*	• Drilling was completed using best practice NQ diamond core, 5 ¾" face sampling RC drilling hammers for all RC drill holes or 4½" Aircore bits/RC hammers unless otherwise stated. Diamond drilling completed by Spectrum or RMS in 2019 & 2020 and historic drilling from 1989 on exists for Penny West and Magenta lodes and used in combination with additional recent Spectrum & RMS infill drilling. Underground diamond drilling of orientated NQ2 core using Reflex orientation tools was completed in 2023.
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.*	• All diamond core is jigsawed to ensure any core loss, if present is fully accounted for. Bulk RC and Aircore drill holes samples were visually inspected by the supervising geologist to ensure adequate clean sample recoveries were achieved. Note Aircore drilling while clean is not used in any resource estimation work. Any wet, contaminated or poor sample returns are flagged and recorded in the database to ensure no sampling bias is introduced. • Zones of poor sample return both in RC and Aircore are recorded in the database and cross checked once assay results are received from the laboratory to ensure no misrepresentation of sampling intervals has occurred. Of note, excellent RC drill recovery is reported from all RC holes. Reasonable recovery is noted for all Aircore samples. Zero sample recovery is achieved while navi

Criteria	JORC Code explanation	Commentary
		drilling. The navi lengths are kept to a minimum and avoided when close to potentially mineralised units. • No indication of sample bias is evident or has been established.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• All drill samples are geologically logged on site by professional geologists. Details on the host lithologies, deformation, dominant minerals including sulphide species and alteration minerals plus veining are recorded relationally (separately) so the logging is interactive and not biased to lithology. • Drill hole logging is qualitative on visual recordings of rock forming minerals and quantitative on estimates of mineral abundance. • The entire length of each drill hole is geologically 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.*	• Duplicate samples are collected every 20th sample from the RC and Aircore chips as well as quarter core from the surface diamond holes. • Dry RC 1m samples are riffle split to 3-4kg as drilled and dispatched to the laboratory. Any wet samples are recorded in the database as such and allowed to dry before splitting and dispatching to the laboratory. • All core, RC and Aircore chips are pulverized prior to splitting in the laboratory to ensure homogenous samples with 85% passing 75um. 200gm is extracted by spatula that is used for the 50gm or 30 gm charge on standard fire assays. • All samples submitted to the laboratory are sorted and reconciled against the submission documents. In addition to duplicates, a selection of appropriate high grade or low grade standards and controlled blanks are included every 20th sample. The laboratory uses barren flushes to clean their pulveriser and their own internal standards and duplicates to ensure industry best practice quality control is maintained. • The sample size is considered appropriate for the type, style, thickness and consistency of mineralisation.
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• The fire assay method is designed to measure the total gold in the diamond core, RC and Aircore samples. The technique involves standard fire assays using a 50gm or 30gm sample charge with a lead flux (decomposed in the furnace). The prill is totally digested by HCl and HNO3 acids before measurement of the gold determination by AAS. Aqua regia digest is considered adequate for surface soil sampling. Recent assaying at Penny has been conducted by Photon analysis of a crushed 500g sample or sub-sample. Photon assaying is a non-destructive technique that utilises high energy X-Rays for gold detection and is considered a total technique. • No field analyses of gold grades are completed. Quantitative analysis of the gold content and trace elements is undertaken in a controlled laboratory environment. • Industry best practice is employed with the inclusion of duplicates and standards as discussed above and used by Ramelius as well as the laboratory. All Ramelius standards and blanks are interrogated to ensure they lie within acceptable tolerances. Additionally, sample size, grind size and field duplicates are examined to ensure no bias to gold grades exists.

Criteria	JORC Code explanation	Commentary
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.*	• Alternative Ramelius personnel have inspected the diamond core, RC and Aircore chips in the field to verify the correlation of mineralised zones between assay results and lithology, alteration and mineralisation. The Competent Person has verified significant intersections of recent drilling during the resource modelling process. • All holes are digitally logged in the field and all primary data is forwarded to Ramelius' Database Administrator (DBA) in Perth where it is imported into Datashed, a commercially available and industry accepted database software package. Assay data is electronically merged when received from the laboratory. The responsible project geologist reviews the data in the database to ensure that it is correct and has merged properly and that all the drill data collected in the field has been captured and entered into the database correctly. • The responsible geologist makes the DBA aware of any errors and/or omissions to the database and the corrections (if required) are corrected in the database immediately. • No adjustments or calibrations are made to any of the assay data recorded in the database.
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 drill hole collars are picked up using accurate DGPS or mine survey control. All down hole surveys are collected using downhole Eastman single shot or gyro surveying techniques provided by the drilling contractors. Mine workings and infrastructure are regularly picked up by mine surveyors. Historical collars have been converted from previous grid systems to MGA94 and verified to be accurate to +/-2m Easting and Northing. • All Penny holes are picked up in MGA94 – Zone 50 grid coordinates. • DGPS RL measurements captured the collar surveys of the drill holes prior to the resource estimation work. Quality topographic surfaces have been generated from aerial photogrammetry and detailed surveys. Some older drillhole data has been adjusted to match accurate topography.
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.*	• RC drill spacing varies depending on stage of the prospect – infill and step out (extensional) programmes are planned on nominal 40m centres. Good continuity has been achieved from the RC drilling. Diamond drill spacing has been done on 20m x 40m centres or less where deemed appropriate to understanding continuity. • Drill spacing is sufficient to establish appropriate continuity and the classifications used. • RC: Vast majority of samples are 1m, with minor 2 or 4m composites, generally outside mineralised areas. Diamond: 1m samples or geologically defined 0.3 - 1.5m samples. All data composited to 1m lengths for resource calculations.
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*	• Drillholes are orientated orthogonal to the geological and mineralised trend. Intercept angles are at a moderate to high angle to the lode. Typically as -60° W dipping holes drilling a -55° E dipping lode zone. Underground diamond holes are -30º to -70º E dipping at a moderate to high angle to the lode.

Criteria	JORC Code explanation	Commentary
	assessed and reported if material.	
Sample security	• *The measures taken to ensure sample security.*	• Sample security is integral to Ramelius' sampling procedures. All bagged samples are delivered directly from the field to the assay laboratory in Kalgoorlie, whereupon the laboratory checks the physically received samples against Ramelius' sample submission/dispatch notes.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Sampling techniques and procedures are reviewed prior to the commencement of new work programmes to ensure adequate procedures are in place to maximize the sample collection and sample quality on new projects. No external audits have been completed to date at Penny.

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.*	• Penny falls within M57/180 & M57/196 owned 100% by Ramelius subsidiary Penny Operations Ltd. • Currently all the tenements are in good standing and Penny is an operating mine site. There are no known impediments to obtaining licences to operate in all areas.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Exploration and mining by other parties (EastMet, Metana, GMA, Aquila and Spectrum) has been reviewed and is used as a guide to Ramelius' exploration activities. Previous parties have completed shallow RAB, Aircore drilling and RC drilling and open pit mining has previously occurred at Penny West. This report concerns exploration results generated by Ramelius for the current reporting period, not previously reported to the ASX.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Penny is an orogenic structurally controlled Archaean gold lode system. Gold mineralisation occurs within narrow, steeply east dipping, quartz-sulphide lodes. The quartz veins are variably massive, laminated or brecciated with a variable sulphide assemblage of pyrite, pyrrhotite, galena, chalcopyrite and sphalerite & frequent visible gold. High Ag grades (1:1 Au) are noted.

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*
		• All the drill holes reported in this report have the following parameters applied. All drill holes completed, including holes with no significant results (as defined in the Attachments) are reported in this announcement.
		• Easting and northing are given in MGA94 coordinates as defined in the Attachments.
		• RL is AHD
		• Dip is the inclination of the hole from the horizontal. Azimuth is reported in magnetic degrees as the direction the hole is drilled. MGA94 and magnetic degrees vary by <1 degree in the project area. All reported azimuths are corrected for magnetic declinations.
		• Down hole length is the distance measured along the drill hole trace. Intersection length is the thickness of an anomalous gold intersection measured along the drill

Criteria	JORC Code explanation	Commentary
	Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	hole trace. • Hole length is the distance from the surface to the end of the hole measured along the drill hole trace. • No results currently available from the exploration drilling are excluded from this report. Gold grade intersections >0.4 g/t Au within 4m Aircore composites or >0.5 g/t Au within single metre RC samples (generally using a maximum of 2m of internal dilution but additional dilution where specifically indicated) are considered significant in the broader mineralised host rocks. Diamond core samples are generally cut along geological contacts or up to 1m maximum. • Gold grades greater than 0.5 g/t Au are highlighted where good continuity of higher grade mineralisation is observed. A 0.1 g/t Au cut-off grade is used for reconnaissance exploration programmes.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• The first gold assay result received from each sample reported by the laboratory is tabled in the list of significant assays. Subsequent repeat analyses when performed by the laboratory are checked against the original to ensure repeatability of the assay results. • Weighted average techniques are applied to determine the grade of the anomalous interval when geological intervals less than 1m have been sampled. • Exploration drilling results are generally reported using a 0.5 g/t Au lower cut-off for RC and diamond or 0.1 g/t Au for Aircore drilling (as described above and reported in the Attachments) and may include up to 4m of internal dilution or more where specifically indicated. Significant resource development drill hole assays are reported greater than 0.5 or 8.0 g/t Au and are also reported separately. For example, the broader plus 1.0 g/t Au intersection of 6.5m @ 30.5 g/t Au contains a higher-grade zone running plus 8 g/t Au and is included as 4m @ 48.5 g/t Au. Where extremely high gold intersections are encountered as in this example, the highest-grade sample interval (eg 1.0m @ 150 g/t Au) is also reported. All assay results are reported to 3 significant figures in line with the analytical precision of the laboratory techniques employed. • No metal equivalent reporting is used or applied.
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 intersection length is measured down the length of the hole and is not usually the true width. When sufficient knowledge on the thickness of the intersection is known an estimate of the true thickness is provided in the Attachments. • The known geometry of the mineralisation with respect to drill holes reported for advanced projects is generally well constrained. • Estimated true widths are listed in the Attachments.
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.*	• Detailed drill hole plans and sectional views are provided or have been provided previously. Long section and cross-sectional views (orthogonal to the plunging shoots) are considered the best 2-D representation of the known spatial extent of the mineralisation.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and*	• Available results of all drill holes completed for the reporting period are included in this report, and all material intersections (as defined above) are reported.

Criteria	JORC Code explanation	Commentary
	high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	
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.*	• No other exploration data that has been collected is considered meaningful and material to this report.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Future exploration may include infill and step out RC and diamond drilling where justified to define the full extent of the mineralisation discovered to date. • Further work mainly comprises of further drilling programmes. No details or diagrams are attached for this announcement.

Section 3 Estimation and Reporting of Mineral Resources - Penny

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.*	• Recent Ramelius drilling employs an SQL central database using Datashed information management software. Data collection uses Field Marshall software with fixed templates and lookup tables for collecting field data electronically. Several validation checks occur upon data upload to the main database. • All drillholes are plotted and reviewed by the responsible exploration geologist and the resource geologist. All drill data is checked visually as part of modelling process. Other validation checks include electronic checks for missing assays and geology intervals, overlapping intervals, duplicate assays, EOH depth, hole collar elevations and assay value detection limits, negative and zero values. Some historic data, has been checked against hardcopy logs.
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.*	• The Competent Person is a full-time employee of Ramelius Resources and has made multiple site visits which have confirmed the geology and information included in this report.
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.*	• Confidence in the geological interpretation is high. • Data used includes drilling assays & logging, underground development mapping & face sample assays, and utilizes interpretation and modelling experience from related deposits in Archean greenstone belts. • No alternate interpretation required. • Geological interpretation precedes and underpins the mineralisation interpretation. The geological model represents the steeply dipping quartz vein mineralised host within a mafic to intermediate stratigraphy with sulphide mineralisation within the vein. • Continuity is affected by geological extents and mineralisation as currently defined by drilling. Higher massive sulphide and Ag concentrations within the quartz

		veins are generally associated with higher gold grades at Penny.
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.*	• Penny lodes are a narrow vein/lode style. Penny North strikes N and dips 55° to E. Average width around 2-3m, ranging from 1m to 6m. Strike and dip extent of Penny North is 400m by 250m. Penny West is similar to Penny North in orientation and extent with an average width ranging from 1-2m. Strike and dip extent of Penny West is 300m by 200m below the open pit.
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 (e.g. 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.*	• 3D mineralization wireframe interpreted in Micromine and Leapfrog. Lode domains are interpreted based on quartz vein position. Deposits were estimated using Micromine software using Ordinary Kriging method inside mineralisation domains. The estimation method is appropriate for the deposit type. Grade within the domain is estimated by geological software within hard bounded domains. 1m composited topcut assay data was used to control extreme values. Variograhy and geostatistics were used to determine interpolation and search distance parameters. Anisotropic search ellipse interpreted plunge continuity to the south. • Previous estimates and mill reconciliation data is available for Penny North and this has been taken into account for estimation in this report. • Only gold is estimated. • No deleterious elements present. • Parent cell of 5mE x 10mN x 5mRL. Parent cells are SMU size applied to underground mining methods. Sub-celling to minimum 0.5mE x 1mN x 0.5mRL. Anisotropic search – maximum range 120m. • Domains are reviewed geostatistically and assigned appropriate search directions, top-cuts and estimation parameters. The search is aligned with the observed geological strike and dip of the lode and appropriate anisotropy for the mineralisation style. • Samples were composited within ore domains to 1m lengths. • The geological interpretation of the quartz vein host forms the mineralisation domain used in the estimation. No soft boundaries were applied. • Top cuts were applied to domains after review of grade population characteristics. Principal top-cut used was 120g/t and is 96.7 percentile range. • Validation is by visual comparison against drillhole grades, face sample grades, underground mapping, survey pick-ups of the lode position within the drives, and comparison against previous models.
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.*	• The resource reporting cut-off of 2.0 g/t used is appropriate for the underground mining method used at Penny and the parameters applied to discriminate economic materials from low-grade and waste.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining*	• Resources are reported on the assumption of mining by conventional sub-level open stope underground mining methods currently being deployed at Penny. Parent block

	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.	size and estimation methodology were selected to generate a model appropriate for mining evaluations.
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.*	• Metallurgical treatment is based on current ore production or metallurgical testwork. Penny is processed at Mt Magnet with recoveries of around 97%.
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.*	• Penny is an operating mine site and compliant with all legal and regulatory requirements. • Ore treatment and tailings generation is occurring at the current Mt Magnet Checkers mill. • Pits and waste dumps are located at Penny.
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.*	• Density values are well established at Penny and numerous measurements are available from the deposits. Density measurements were completed on diamond core holes using the weight in air/weight in water method. They have been assigned by geological and weathering domains. Densities for oxide and transitional materials are essentially estimated. • It is assumed the deposit densities can be represented by the average values determined or estimated by rocktype and oxidation type.
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*	• The resource has been classified as Measured, Indicated or Inferred categories based on geological and grade continuity, drillhole spacing and generation, and underground development areas. • The resource classification accounts for all relevant factors. • The classification reflects the Competent Person's view.

	Competent Person's view of the deposit.	
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• No audits or reviews conducted to date.
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 accuracy and confidence in the Resource is high given the deposit style, quality and density of drilling and sampling, both historic and new. • Resources are global estimates. • Overall production data is available for the historic mined pits and underground mine and the information has been taken into account within this report.