# Ramelius Resources Limited

Mark Zeptner
Managing Director

**ASX:RMS** 



# An Australian Gold Growth Story



September 2021

# **QUALIFICATION**

#### **Forward Looking Statements**

This presentation contains certain forward looking statements with respect to Ramelius Resources Ltd's (Ramelius) financial condition, results of operations, production targets and other matters that are subject to various risks and uncertainties. Actual results, performance or achievements could be significantly different from those expressed in or implied by those forward looking statements. Such forward looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors that are beyond the control of Ramelius that may cause actual results to differ materially from those expressed in the forward looking statements contained herein. Ramelius gives no warranties in relation to the information and statements within this presentation.

#### **Competent Persons Statement**

The Information in this report that relates to Exploration Results, Mineral Resources and Ore Reserves is based on information compiled by Peter Ruzicka (Exploration Results), Rob Hutchison (Mineral Resources) and Paul Hucker (Ore Reserves), who are Competent Persons and Members of The Australasian Institute of Mining and Metallurgy. Peter Ruzicka, Rob Hutchison and Paul Hucker are employees of the Company and have 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". Peter Ruzicka, Rob Hutchison and Paul Hucker consent to the inclusion in this report of the matters based on their information in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information included in this presentation and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.



#### **CORPORATE SUMMARY**

#### **Corporate Structure**

Market Cap<sup>1</sup> A\$1.15B @ \$1.41 per share

**Cash & Gold**<sup>2</sup> A\$234.0M

Debt<sup>2</sup> Nil

#### **Major Shareholders**



## **Broker Coverage**



**M**morgans

Shaw<mark>and</mark>Partners

an ErG compan



Capital







Genuity

Morgan Stanley

#### **Gold Guidance**

**FY21 Production**<sup>3</sup> 272,109oz @ AISC A\$1,317/oz (New Record)

**FY22 Guidance**<sup>3</sup> 260,000 - 300,000oz @ AISC A\$1,425 - 1,525/oz

Mineral Resources<sup>4</sup> 5.4Moz at 30 June 2021

Ore Reserves<sup>4</sup> I.I Moz at 30 June 2021

#### Board

Bob VassieNon-Executive ChairMark ZeptnerManaging DirectorMichael BohmNon-Executive DirectorDavid SouthamNon-Executive DirectorNatalia StreltsovaNon-Executive DirectorRichard JonesEGM - Legal / HR / Risk /

Sustainability & CoSec

#### Management

<b>Duncan Coutts</b>	Chief Operating Officer				
Tim Manners	Chief Financial Officer				
Peter Ruzicka	EGM Exploration				
Liz Jones	GM - Mount Magnet				
Paul Marlow	Mine Manager - Vivien				
Tim Blyth	GM - Edna May				



**Hugh Trivett** Mine Manager - Tampia

Matthew O'Hara Mine Manager - Penny



 $<sup>^2\,\</sup>mbox{As}$  at 30 June 2021 / Syndicated Facility Agreement repaid in FY21

<sup>&</sup>lt;sup>3</sup> See RMS ASX Release "June 2021 Quarterly Activities Report" on 29 July 2021

<sup>&</sup>lt;sup>4</sup>See RMS ASX Release "Resources and Reserves Statement 2021", 10 September 2021

# **SUSTAINABILITY\* - STEPPING UP TO THE PLATE**

#### **OUR BUSINESS**



PECOPD

CASH FLOW/DIVIDENDS/ WAGE PAYMENTS



(Organisational governance)

**NEW**<sub>RISK</sub>

AND SUSTAINABILITY COMMITTEE FORMED



(Regulatory and compliance)

**ZERO**FINES

OR MATERIAL INCIDENTS

#### **OUR COMMUNITIES**



(Indigenous and native title)

TWO INDIGENOUS DEVELOPMENT PROJECTS



(Taxes, royalties and supplier payments)

A\$476m

CONTRIBUTED TO AUSTRALIAN ECONOMY



(Community relations and investment)

OVER \$400k

DIRECTLY DONATED TO LOCAL COMMUNITIES

#### **OUR PEOPLE**



(Health, safety and wellbeing)

NEW SAFETY

MANAGEMENT SYSTEM, INCREASING TRANSPARENCY



(Employment and contractors)

33% OF NEW HII



(Talent attraction, development and retention)

39 TEAM MEMBERS COMPLETED MINE EMERGENCY RESPONSE

#### **OUR ENVIRONMENT**



(Water)

19% of TOTAL WATER IS REUSED



(Emissions and energy)

BASELINE SET
FOR ONGOING MEASUREMENT AND
COMPARISON



(Waste, effluents, air pollution) UPGRADED

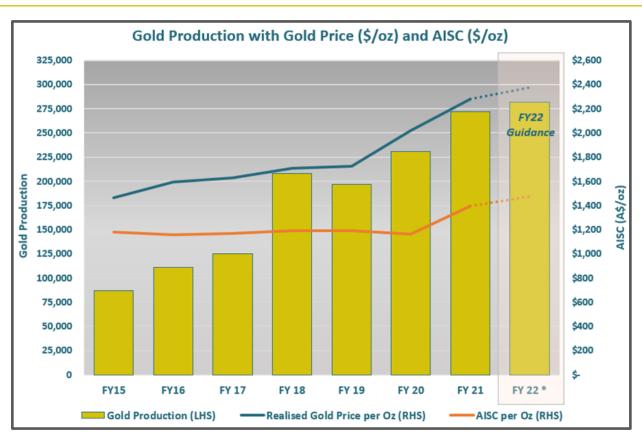
WASTEWATER
TREATMENT
AT EDNA MAY



#### CONSISTENT PRODUCTION GROWTH# WITH EXPANDING MARGINS

- +20% year-on-year goldproduction growth FY15-FY21
- Further growth to 280koz in FY22
- Consistent AISC profile over first
  6 years → varying <2.5%
  - Maintaining margins despite

    COVID-19 related cost increases



\*Includes mid-points of production and AISC guidance and a weighted average gold price from the RMS Hedge Book and as assumed A\$2,450/oz spot price



#### **RESOURCES & RESERVES**<sup>1</sup>

#### Mineral Resources

I I 0Mt @ I.6 g/t for 5.4Moz



• 17Mt @ 2.0 g/t for 1.1Moz

#### Foundation of 1.84Moz Mine Plan<sup>2</sup>

92% from Reserves/Indicated Resources

Conversion rate ~20%

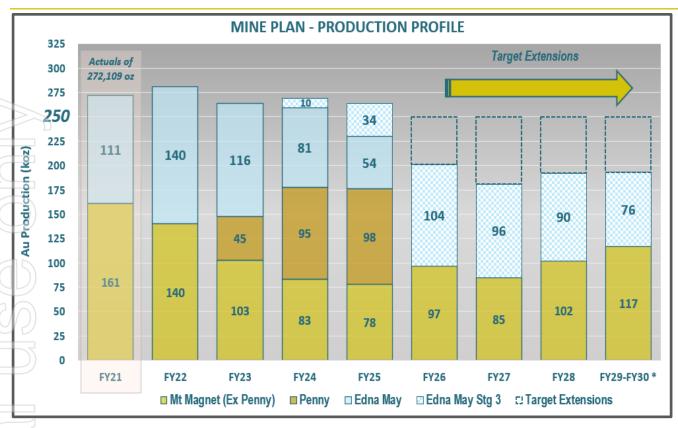
Mining Study timing has led to

Resource to Reserve conversion to
be seen in 2022 Ore Reserves





#### 1.84 MILLION OUNCE MINE PLAN#



- > 27% increase on FY20 Mine Plan
- In addition to 1.37Moz produced to date from MM & EM
- Mt Magnet production centre
  - Vivien extended to end of FY23
  - Galaxy Underground from FY24
  - Eridanus Underground from FY25
- Edna May production centre
  - Stage 3 (Scoping Study) from FY24
  - Underground extended to FY25

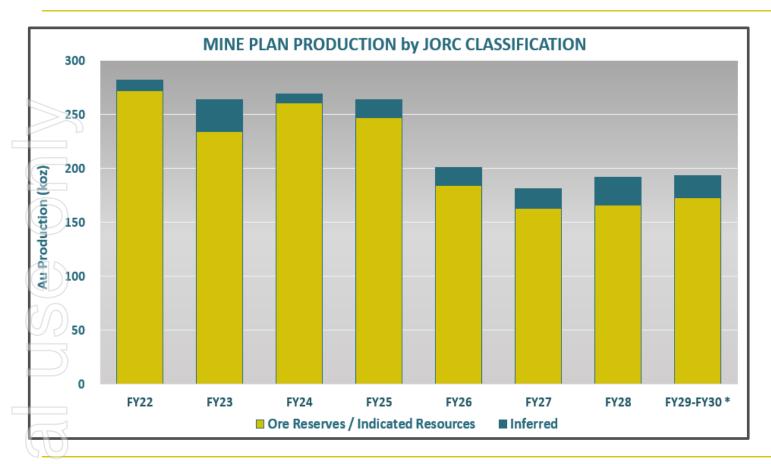
\*Years FY29 to FY30 have been combined. Both years currently contain primarily low-grade stockpiles at Mt Magnet and lower grade material from Edna May Stg 3 cut-back. Production for the two years are 120koz for FY29 and 73koz for FY30.



"The Life of Mine Plan is a Production Target that contains a proportion of Inferred Resources (8%). There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

See RMS ASX Release, "Ramelius Mine Plan increases 27% to 1.84Moz", 2 August 2021

## **ORE RESERVE & MINERAL RESOURCE CONTRIBUTIONS**



- New Mine Plan is driven
   from Ore Reserves and
   Indicated Resources
- Only 8% of the Mine Plan
   is derived from Inferred
   Mineral Resources
- High confidence plan,especially first four years



#### MINE PLAN - VISIBILITY & TRANSPARENCY



1.84Moz across 9 years to FY30, which includes a low-grade tail in years 8 & 9



Average AISC over first 7 years of between A\$1,390 - 1,490/oz



Capital for all projects included, with Edna May Stage 3 itemised separately



Exploration (A\$32.1M in FY22) contributes to mine life extension & delivers "rolling plan"

<b>Key Metrics</b>	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29+30*	TOTAL/AVG
Production (koz)	260 - 300	245 - 285	250 - 290	245 - 285	180 - 220	160 - 200	170 - 210	175 - 215	1,845
AISC (A\$/oz)	1,425 - 1,525	1,350 - 1,450	1,225 - 1,325	1,320 - 1,420	1,465 - 1,615	1,485 - 1,635	1,505 - 1,655	1,885 - 2,035	1,440 - 1,560
Capital (A\$M)	70 – 80	30 – 40	60 – 70	15 – 25	10 – 20	10 – 20	10 – 20	5 – 15	210 – 290
Edna May Stage 3	-	20 – 30	70 – 80	60 – 70	-	-	-	-	150 – 180
Total (A\$M)	70 – 80	50 – 70	130 – 150	75 – 95	10 – 20	10 – 20	10 – 20	5 – 15	360 – 470





# PROJECT LOCATIONS - MULTIPLE ASSETS INTO TWO PRODUCTION CENTRES

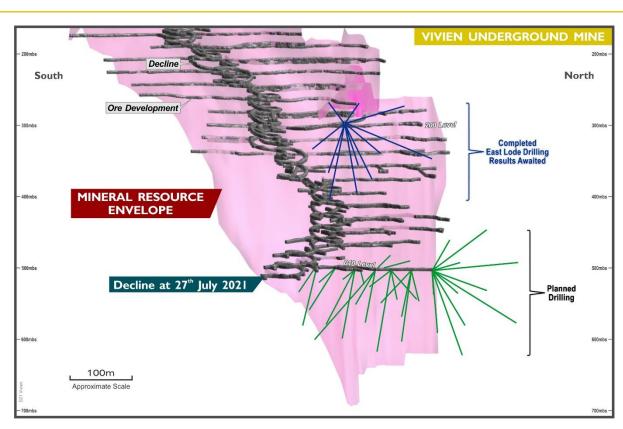
- Mt Magnet 6Moz produced and counting
- Edna May one of few producers in the region
  - Highly sought-after jurisdiction
  - Easy access to sites from Perth
  - Close to major regional centres and existing road haulage routes
  - Well established infrastructure in place
  - Strong local community involvement





#### **VIVIEN - A NEW LEASE ON LIFE**

- Originally planned for October 2021 finish
- Additional 2 years of life, at least...
  - 10x return on original purchase of A\$10M^
    - Original Reserve of 400kt @ 7.1g/t for 101koz\*
    - Production to date of 1.1Mt @ 6.1g/t for 210koz
    - FY22/23 production plan 426kt @ 4.3g/t for 59koz
    - Ounce growth of 166% on original Ore Reserve
  - Extension potential in Main & East Lodes
  - Next program of exploration in progress

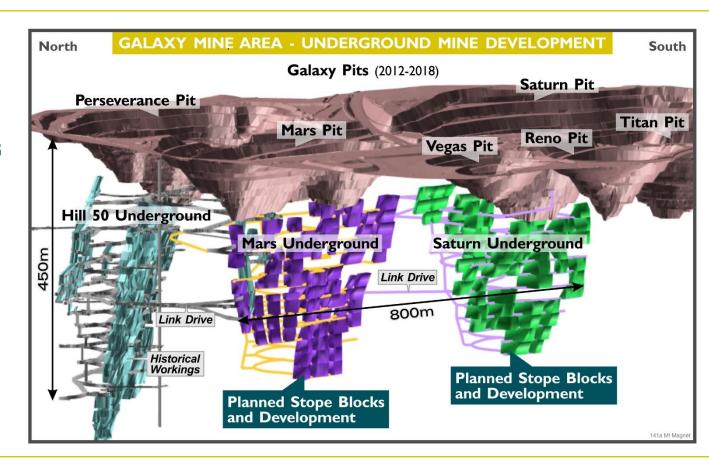


Vivien drilling program



#### **GALAXY - OPENING UP A NEW UNDERGROUND ORE SOURCE**

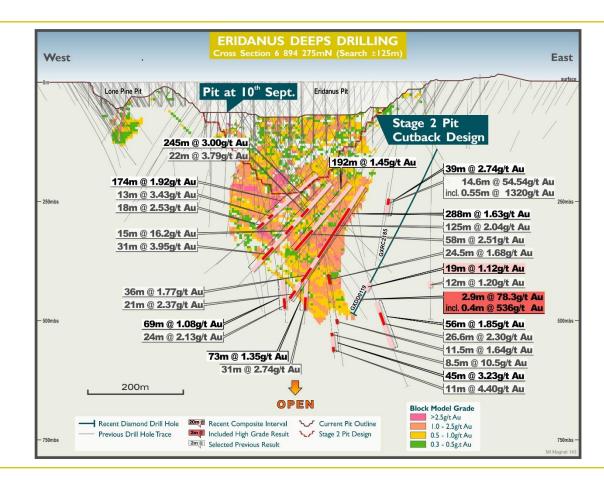
- Historic area mined by Ramelius2012 2018 upon re-start
- Opportunity identified for early access compared to Eridanus UG
- Scoping Study work brought forward from December 2021
- Access existing Hill 50 decline & run separate declines to Mars & Saturn orebodies
- Banded Iron Formations have excellent depth continuity





#### **ERIDANUS - LOOKING TO GROW BEYOND A I MILLION OZ RESOURCE**

- Eridanus Stage 2 open pit commenced in June 2020
- Relatively shallow drilling undertaken over 2km of Granodiorite strike to date
- **→ Recently updated Mineral Resources**!:
  - Eridanus
     20Mt @ 1.2g/t for 760,000 ounces
  - Orion/Franks 6.9Mt @ 1.0g/t for 220,000 ounces
  - Underground Scoping Study results in staged LHOS operation from FY24
  - Oxide open pits at Orion & Franks Tower
  - Drilling ongoing, recent VG result#
    - Hole GXDD0119: 2.9m @ 78.3 g/t Au from 514.4m,
    - incl. 0.4m @ 536 g/t Au





#### PENNY - ONE OF AUSTRALIA'S HIGHEST GRADE GOLD MINES

- Mineral Resource: 620kt @ 15.0g/t for 300koz1
- Ore Reserve: 500kt @ 14.0g/t for 230koz¹
- Approvals
  - All key approvals received
  - Contracts
  - Camp construction completed and commissioned
  - Open pit mining services awarded
  - Underground mining services tender to go out shortly
  - Open pit mining has commenced
  - Next program of exploration underway with downhole geophysics follow up



First blast complete at Magenta pit



#### EDNA MAY - UP TO 500K OUNCE POTENTIAL WITHIN STAGE 3 OPEN PIT

#### Current Mineral Resources<sup>1</sup>

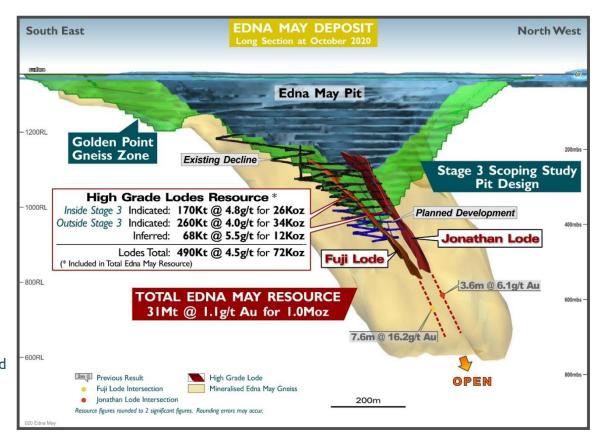
- 31Mt @ 1.1g/t for 1.0Moz (overall resource)
- 490kt @ 4.5g/t for 72koz (included high grade lodes)

# Scoping Study (January 2021) results include<sup>2</sup>

- 16.5Mt @ 0.82g/t for 434koz mined
- 94% met recovery for 408koz produced
- Project life of 4.5yrs (mining) & 6.75yrs (milling)
- Estimated upfront capital cost A\$165M
- Estimated AISC of A\$1,540/oz

#### PFS extended out to 31 December 2021

- Significant volatility in mining contractor rates in 2021
- Geotechnical, tailings facility & plant capital work progressed
- Golden Point RC drilling now in progress





#### TAMPIA - PRODUCTION COMMENCED ON SCHEDULE

## **Edna May Plant**

Oxide ore being treated at high throughput rates

# Access/Approvals

Land Access – 10% minority interest & land purchased#

## Narembeen Accommodation Camp

100-person Camp in operation

## First blast occurred end of April 2021

MACA Mining open pit contractor

## First ore mined June 2021

- Ore haulage commenced | July 2021
  - MLG Oz haulage contractor







# **ORGANIC GROWTH - MINING/PROCESSING STUDIES**#

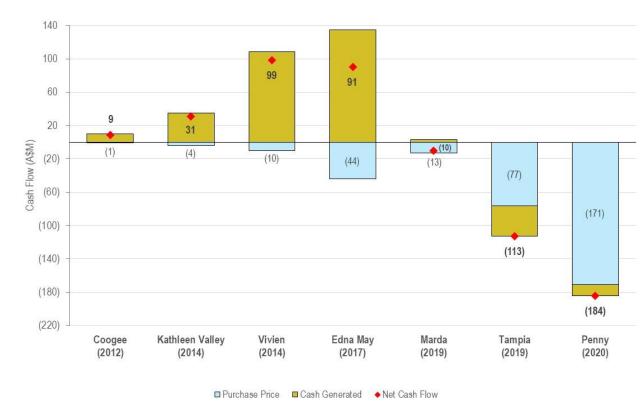
Site	Study Description	Est. Completion
Mt Magnet	Galaxy (Saturn & Mars) underground: complete Pre-Feasibility Study	30 September 2021
Mt Magnet	Morning Star underground: Scoping Study to convert a % of ~80koz Mineral Resource	31 December 2021
Mt Magnet	Hill 50 underground: Concept Study to convert a % of ~340koz Mineral Resource	31 March 2022
Mt Magnet	Eridanus underground: Scoping Study complete, awaiting further exploration drilling and pit deepening	ТВА
Mt Magnet	Processing Facility Upgrade: Feasibility Study on upgrade from 2.0 to 2.5-2.7Mtpa (dependent on underground study results above)	ТВА
Edna May	Stage 3 Open Pit: complete Pre-Feasibility Study (assuming continuation of the current high-grade lode underground operation)	31 December 2021



#### **INORGANIC GROWTH - A HISTORY OF ADDING VALUE\***

- Track record of generating positive (net) cash flow from new projects
  - Marda now in production (360kt ore stockpile, ~A\$25M in free cf.)
- Tampia commenced ore production
- Penny capital program, portion brought forward from FY22 into FY21
  - Balance sheet strength to be applied to new opportunities







#### **FOCUS FOR FY22**

# **Operational Excellence**

**High Impact Exploration** 

**Accretive Acquisitions** 

**Shareholder Returns** 

**Near-term Catalysts** 

- Continue focus on meeting guidance, managing costs & improving safety
- Guidance of 260,000 300,000 ounces at an AISC of A\$1,425 1,525/oz
- A\$32M exploration budget Mt Magnet and Edna May
- Includes additional funds for extensional drilling at Vivien
- Assess strategic acquisition opportunities to deliver step change
- Well placed to execute quickly on transactions

- Disciplined approach to capital management, strong balance sheet
- A\$43.1M paid in cumulative dividends to date
- Progression on Mt Magnet & Edna May mining/processing studies
- Moving towards underground development & production at Penny



#### **THANK YOU**





#### **APPENDIX I - 2021 MINERAL RESOURCE STATEMENT**

		MIN	ERAL R	ES OURC	ES AS AT 30	) JUNE	2021 - INC	LUSIVE OF	RESE	RVES			
Project	Deposit	posit Mieasured			ndicated		Inferred			Total Resource			
		t	g/t	oz	t	g/t	oz	t	g/t	œ	t	g/t	OZ
	Moming Star				4,900,000	1.9	300,000	4,300,000	1.5	210,000	9, 200, 000	1.7	510,000
	Bantus Group	49,000	2.2	4,000	110,000	2.1	8,000	240,000	1.6	12,000	400,000	1.9	24,000
	Boom er				1, 200,000	1.8	68,000	790,000	1.0	25,000	2,000,000	1.5	94,000
	Britannia Well				180,000	2.0	12,000				180,000	21	12,000
	Brown Hill				1, 100,000	1.6	59,000	490,000	1.2	19,000	1,600,000	1.5	78,000
	Bullocks				200,000	3.3	21,000	40,000	2.5	3,000	240,000	3.1	24,000
	Eastern Jas pilite	150,000	2.2	10,000	120,000	2.8	11,000	130,000	2.5	11,000	400,000	2.5	32,000
	Eclipse				170,000	2.2	12,000	41,000	2.1	3,000	210,000	22	15,000
	Eridanus	980,000	1.1	35,000	14,000,000	1.3	580,000	4,000,000	1.0	130,000	19,000,000	1.2	750,000
	Franks Tower				2,000,000	1.5	97,000	480,000	1.5	23,000	2,400,000	1.5	120,000
	Golden Stream				150,000	2.9	14,000	67,000	1.2	2,700	220,000	2.4	17,000
	Golden Treasure				780,000	1.1	28,000	880,000	1.0	28,000	1,700,000	1.0	56,000
Mit Milagnet	Lone Pine				490,000	1.3	21,000	390,000	1.7	21,000	870,000	1.5	42,000
	Milky Way				820,000	1.1	29,000	1,600,000	1.1	57,000	2,400,000	1.1	86,000
	Orion				1,900,000	1.7	100,000	240,000	2.8	21,000	2,200,000	1.8	120,000
	Spearmort-Gatee							580,000	2.6	48,000	580,000	2.6	48,000
	Welcome - Baxter	220,000	1.6	11,000	280,000	1.6	15,000	200,000	1.8	11,000	700,000	1.7	37,000
	Open Pit deposits	1,400,000	1.3	60,000	29,000,000	1.5	1,400,000	14,000,000	1.3	620,000	45,000,000	1.4	2,100,000
	Galaxy UG				7,000,000	2.1	470,000	1,500,000	2.0	93,000	8,500,000	21	560,000
	Hill 50 Deeps	280,000	5.5	49,000	930,000	7.0	210,000	400,000	6.4	81,000	1,600,000	6.6	340,000
	Hill 60	310,000	3.7	36,000	160,000	3.3	17,000	30,000	2.0	2,000	500,000	3.4	56,000
	Morning Star Deeps				190,000	4.2	26,000	330,000	5.0	53,000	530,000	4.7	79,000
	Shannon	56,000	19.2	35,000	57,000	5.4	9,800	18,000	5.0	3,000	130,000	11.2	47,000
	UG deposits	640,000	5.8	120,000	8,300,000	2.7	730,000	2,200,000	3.2	230,000	11,000,000	3.0	1,100,000
	ROM & LG stocks	4, 200, 000	0.6	84,000							4, 200, 000	0.6	84,000
	Total MtMagnet	6,300,000	1.3	260,000	37,000,000	1.8	2,100,000	17,000,000	1.6	850,000	60,000,000	1.7	3,200,000
	Edna May				23,000,000	1.0	730,000	7,000,000	1.0	230,000	30,000,000	1.0	960,000
	Edna May UG				290,000	4.3	40,000	36,000	5.2	6,000	320,000	4.4	46,000
Edna M ay	Greenfinch				970,000	0.9	29,000	520,000	0.8	14,000	1,500,000	0.9	43,000
	ROM & LG stocks	600,000	0.5	8,900							600,000	0.5	8,900
	Total Edna May	600,000	0.5	8,900	24,000,000	1.0	800,000	7,600,000	1.0	240,000	33,000,000	1.0	1,100,000
Vivien	Vivien U G	250,000	6.1	48,000	240,000	5.1	40,000	88,000	3.7	11,000	580,000	5.3	99,000
Symes	Symes Find				570,000	1.9	35,000	39,000	1.2	1,500	610,000	1.9	37,000
	Dolly Pot				340,000	1.7	18,000	47,000	1.6	2,400	390,000	1.7	21,000
	Py thon				340,000	1.7	18,000	180,000	1.8	10,000	520,000	1.7	28,000
Marda	Golden Orb				380,000	2.9	35,000	200,000	1.7	11,000	580,000	2.5	47,000
	King Brown				110,000	4.3	15,000	49,000	1.8	2,800	150,000	3.5	17,000
	Die H ardy				1,500,000	1.5	72,000	550,000	1.3	23,000	2,000,000	1.5	95,000
	ROM & LG stocks	360,000	1.7	19,000							360,000	1.6	19,000
	Total Marda	360,000	1.6	19,000	2,700,000	1.9	160,000	1,000,000	1.5	50,000	4,000,000	1.8	230,000
Tampia	Tampia	390,000	2.4	31,000	7,700,000	1.7	420,000	130,000	1.8	7,400	8,200,000	1.7	460,000
Penny	North, West & Mage	nta			420,000	19.0	260,000	200,000	6.6	42,000	620,000	15.0	300,000
Tot	al Resource	7,900,000	1.5	370,000	73,000,000	1.6	3,800,000	26,000,000	1.5	1,200,000	110,000,000	1.6	5,400,000

For detailed information relating to Mineral Resources see ASX Releases (RMS) "Resources and Reserves Statement 2021", 10 September 2021.

The Company confirms that it is not aware of any new information or data that materially affects the information included in this presentation and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.





#### **APPENDIX 2 - 2021 ORE RESERVE STATEMENT**

	ORE RESERVE STATEMENT AS AT 30 JUNE 2021									
Project	Mine		Proven			Probable		Tot	al Reserv	e
1 lojout	WILL	t	g/t	0Z	t	g/t	0Z	t	g/t	0Z
	Boomer				130,000	2.7	11,000	130,000	2.7	11,000
	Brown Hill				620,000	1.6	31,000	620,000	1.6	31,000
	Eridanus				3,900,000	1.3	160,000	3,900,000	1.3	160,000
	Golden Stream				91,000	2.9	8,500	91,000	2.9	8,500
Mt Magnet	Morning Star				1,100,000	1.9	68,000	1,100,000	1.9	68,000
	Total Open Pit				5,800,000	1.5	280,000	5,800,000	1.5	280,000
	Hill 60	290,000	3.2	31,000	110,000	3.2	12,000	410,000	3.2	43,000
	Shannon	160,000	7.2	37,000	16,000	3.8	1,900	180,000	6.9	39,000
	Total Underground	190,000	5.9	36,000	470,000	3.7	55,000	660,000	4.3	91,000
	ROM & LG stocks	4,200,000	0.6	84,000				4,200,000	0.6	84,000
	Mt Magnet T otal	4,700,000	1.0	150,000	6,000,000	1.5	290,000	11,000,000	1.3	440,000
Edna May	Edna May UG				380,000	3.2	40,000	380,000	3.2	40,000
	Greenfinch				200,000	1.2	7,800	200,000	1.2	7,800
	ROM & LG stocks	600,000	0.5	8,900				600,000	0.5	8,900
	Edna May Total	600,000	0.5	8,900	590,000	2.5	47,000	1,200,000	1.5	56,000
Vivien	Vivien UG				180,000	5.1	30,000	180,000	5.1	30,000
	Dolly Pot				100,000	1.6	5,300	100,000	1.6	5,300
	Python				38,000	3.8	4,600	38,000	3.8	4,600
	Golden Orb				290,000	2.7	25,000	290,000	2.7	25,000
	King Brown				65,000	3.9	8,100	65,000	3.9	8,100
	Die Hardy				790,000	1.5	38,000	790,000	1.5	38,000
	ROM & LG stocks	360,000	1.7	19,000				360,000	1.6	19,000
	Total Marda	360,000	1.6	19,000	1,300,000	2.0	82,000	1,600,000	1.9	100,000
Tampia	Tampia				3,000,000	2.4	230,000	2,500,000	2.7	230,000
Penny	Penny North & Magenta				500,000	14.0	230,000	500,000	14.0	230,000
T	otal Reserve	5,600,000	1.0	180,000	11,000,000	2.5	910,000	17,000,000	2.0	1,100,000

For detailed information relating to Ore Reserves see ASX Releases (RMS) "Resources and Reserves Statement 2021", 10 September 2021.

The Company confirms that it is not aware of any new information or data that materially affects the information included in this presentation and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

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



#### **APPENDIX 3 - ERIDANUS DIAMOND DRILLING RESULTS**

Hole ID	Easting	Northing	RL	Az/Dip	F/Depth (m)	From (m)	To (m)	Interval (m)	g/t Au
GXDD0119	577102	6894417	432	255/-64	549.9	40	41	1	10.6
						252	254	2	3.90
						387	395	12	1.76
						411	420	9	1.15
						445	451	6	1.28
						475	494	19	1.12
						514.4	517.3	2.9	78.3
					incl.	514.4	514.8	0.4	536

#### Notes

Reported significant gold assay intersections (using a 1 g/t Au lower cut) are reported. 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 top-cut is applied. NSR denotes no significant results. Coordinates are MGA94-Z50. Eridanus consists of a stockwork vein array hence true widths are variable as noted above.



# **APPENDIX 3 - JORC TABLE I REPORT FOR DIAMOND DRILLING**

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

Criteria	JORC Code explanation	Commentary
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 pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>At all projects potential gold mineralised and Diamond intervals are systematically sampled using industry standard 1m intervals or sub 1m intervals to geological control.</li> <li>Drill hole locations were designed to allow for spatial spread across the interpreted mineralised zone. 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.</li> <li>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.</li> </ul>
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	Drilling was completed using best practice NQ diamond core at Mount Magnet.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	All diamond core is jigsawed to ensure any core loss, if present is fully accounted for and recorded.
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> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	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	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Duplicate samples are collected as quarter core from every 25th sample</li> <li>All core samples 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.</li> <li>All samples submitted to the laboratory are sorted and reconciled against the submission documents. In addition to duplicates a high grade or low grade standard is included every 25th sample, a controlled blank is inserted every 100th 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.</li> <li>The sample size is considered appropriate for the type, style, thickness and consistency of mineralization.</li> </ul>



# **APPENDIX 3 - JORC TABLE 1 REPORT FOR DIAMOND DRILLING**

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.  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.	• I	The fire assay method is designed to measure the total gold in the diamond core. The technique involves standard fire assays using a 50gm or 30 gm 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. 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.
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 in the field to verify the correlation of mineralised zones between assay results and lithology, alteration and mineralization.  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.  All Mt Magnet 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.
Data spacing and distribution  Orientation of data in relation to geological	•	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.  Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	• (	Drilling reported is resource extensional in nature – stepping out at nominal intervals aimed at testing a target concept Given the previous limited understanding of the target horizons, infill drilling is necessary to help define the continuity of mineralisation.  No sampling compositing has been applied within key mineralised intervals.  The core drilling is generally completed orthogonal to the interpreted strike of the target horizon(s) or plunge projection of higher grade shoots. At Eridanus, some drilling is oriented parallel to the strike of the Eridanus Granodiorite but orthogonal to predicted
Sample security	•	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.  The 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 Perth, 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.



# **APPENDIX 3 - JORC TABLE I REPORT FOR DIAMOND DRILLING**

#### **Section 2 Reporting of Exploration Results**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.  • The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The results reported in this report are located on granted Mining Leases at Mount Magnet in Western Australia (owned 100% by Ramelius Resources Limited's or its 100% owned subsidiaries). The Mt Magnet tenements are located on pastoral/grazing leases. Heritage surveys are completed prior to any ground disturbing activities in accordance with Ramelius' responsibilities under the Aboriginal Heritage Act in Australia.  Currently all the tenements are in good standing. There are no known impediments to obtaining a licences to operate in either area.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Exploration and mining by other parties has been reviewed and is used as a guide to Ramelius' exploration activities. Previous parties have completed RAB, Aircore drilling, RC drilling and Diamond drilling. Open pit and underground mining has previously occurred at Mt Magnet. This report concerns exploration results generated by Ramelius up until September 13, 2021, that were not previously reported to the ASX.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	The targeted mineralisation at all projects is typical of orogenic structurally controlled Archaean gold lode systems. In all instances the mineralisation is controlled by anastomosing shear zones/fault zones passing through competent rock units, brittle-ductile shearing is common in the gneissic rocks.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	<ul> <li>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.</li> <li>Easting and northing are given in MGA94 coordinates as defined in the Attachments for Mount Magnet.</li> <li>RL is AHD</li> <li>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 &lt;10 in the project area. All reported azimuths are corrected for magnetic declinations.</li> <li>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 hole trace.</li> <li>Hole length is the distance from the surface to the end of the hole measured along the drill hole trace.</li> <li>No results currently available from the exploration drilling are excluded from this report. Gold grade intersections &gt;0.4 g/t Au within 4m Aircore composites or &gt;0.5 g/t Au within single metre RC samples (with up to 4m of internal dilution) are considered significant in the broader mineralised host rocks. Diamond core samples are generally cut along geological contacts or up to 1m maximum.</li> <li>Gold grades greater than 0.5 g/t Au are highlighted where good continuity of higher grade mineralization is observed. 0.1 g/t Au cut-offs are used for reconnaissance exploration programmes.</li> </ul>
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>	<ul> <li>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.</li> <li>Weighted average techniques are applied to determine the grade of the anomalous interval when geological intervals less than 1m have been sampled.</li> <li>Exploration drilling results are generally reported using a 0.5 g/t Au lower cut-off for diamond drilling and may include some documented internal dilution. Where extremely high gold intersections are encountered, 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.</li> <li>No metal equivalent reporting is used or applied.</li> </ul>



# **APPENDIX 3 - JORC TABLE I REPORT FOR DIAMOND DRILLING**

Relationship between	•	These relationships are particularly important in the reporting of Exploration Results.		The intersection length is measured down the length of the hole and is not usually the true width. When sufficient knowledge
mineralisation widths and	•	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be		on the thickness of the intersection is known an estimate of the true thickness is provided in the Attachments.
intercept lengths		reported.	•	The known geometry of the mineralisation with respect to the drill holes reported in this report is now well constrained.
	•	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').		
Diagrams	•	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any	•	Detailed drill hole plans and sectional views of Eridanus are provided or have been provided previously. Interpretation and
		significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.		assessment of the significance of the data is ongoing at the time this report was prepared.
Balanced reporting	•	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both	•	All drill holes completed to date are reported in this report and all material intersections as defined) are reported.
		low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.		
Other substantive	•	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological	•	No other exploration data that has been collected is considered meaningful and material to this report.
exploration data		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.		
Further work	•	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large- scale step-out drilling).	•	Future exploration includes step out RC and diamond drilling below deposits to define the full depth extent of the mineralisation discovered to date.
75	•	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations		
		and future drilling areas, provided this information is not commercially sensitive.		

