#### RAMELIUS PRESOURCES

ACN 001 717 540 A\$X code: RMS

## 10 September 2021

#### **ISSUED CAPITAL**

Ordinary Shares: 814M

#### DIRECTORS

Non-Executive Chaire: Bob Vassie Managing Directore: Mark Zeptner Non-Executive Directores: Michael Bohm David Southam Natalia Streltsova

COMPANY SECRETARY: Richard Jones

www.rameliusresources.com.au ramelius@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 10 September 2021

# **RESOURCES AND RESERVES STATEMENT 2021**

RELEASE

# Mineral Resources up 15%, Ore Reserve depletion replaced

Ramelius Resources Limited (**ASX: RMS**) is pleased to announce new estimates of Mineral Resources and Ore Reserves as at 30 June 2021, with Mineral Resources **up 15%**, after mining depletion.

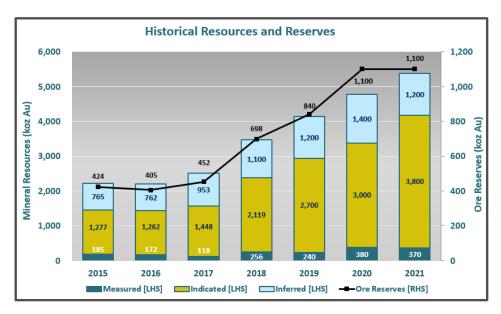
Total Mineral Resources are estimated to be;

110 Mt at 1.6 g/t Au for 5.4 Moz of gold

Total Ore Reserves are estimated to be;

#### • 17 Mt at 2.0 g/t Au for 1.1 Moz of gold

Increases in Mineral Resources were achieved via exploration drilling and resource additions at Ramelius' Eridanus, Galaxy and Edna May gold projects in Western Australia. As in previous years, the Company's ability to consistently meet production guidance has been underpinned by realistic resource modelling and deliverable reserve estimates. Ore Reserves have been maintained, with mining depletions matched by additions. Studies on conversion of the new resources to reserves are in progress.



This ASX announcement was authorised for release by the Board of Directors. For further information contact:

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# **MINERAL RESOURCES**

## Table A: Mineral Resources

		MIN	MINERAL RESOURCES AS AT 30 JUNE 2021 - INCLUSIVE OF RESERVES										
Project	Deposit	N	leasured		l	ndicated			Inferred		Tota	l Resour	ce
		t	g/t	OZ	t	g/t	OZ	t	g/t	OZ	t	g/t	ΟZ
	Morning Star				4,900,000	1.9	300,000	4,300,000	1.5	210,000	9,200,000	1.7	510,00
	Bartus Group	49,000	2.2	4,000	110,000	2.1	8,000	240,000	1.6	12,000	400,000	1.9	24,00
	Boomer				1,200,000	1.8	68,000	790,000	1.0	26,000	2,000,000	1.5	94,000
	Britannia Well				180,000	2.0	12,000				180,000	2.1	12,000
	Brown Hill				1,100,000	1.6	59,000	490,000	1.2	19,000	1,600,000	1.5	78,00
	Bullocks				200,000	3.3	21,000	40,000	2.5	3,000	240,000	3.1	24,00
	Eastern Jaspilite	150,000	2.2	10,000	120,000	2.8	11,000	130,000	2.5	11,000	400,000	2.5	32,00
	Eclipse				170,000	2.2	12,000	41,000	2.1	3,000	210,000	2.2	15,00
	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	750,00
	Franks Tower				2,000,000	1.5	97,000	480,000	1.5	23,000	2,400,000	1.5	120,00
	Golden Stream				150,000	2.9	14,000	67,000	1.2	2,700	220,000	2.4	17,00
	Golden Treasure				780,000	1.1	28,000	880,000	1.0	28,000	1,700,000	1.0	56,000
Mt Magnet	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
	Spearmont-Galtee							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	37,00
	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	2,100,00
	Galaxy UG			,	7,000,000	2.1	470,000	1,500,000	2.0	93,000	8,500,000	2.1	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	340,00
	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	79,00
	Shannon	56,000	19.2	35,000	57,000	5.4	9,800	18,000	5.0	3,000	130,000	11.2	47,00
	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 Mt Magnet	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 May	Greenfinch				970,000	0.9	29,000	520,000	0.8	14,000	1,500,000	0.9	43,00
	ROM & LG stocks	600,000	0.5	8,900	010,000	0.0	20,000	020,000	0.0	11,000	600,000	0.5	8,90
	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 UG	250.000	6.1	48,000	240,000	5.1	40,000	88,000	3.7	11,000	580,000	5.3	99,00
Symes	Symes Find	200,000	0.1	10,000	570,000	1.9	35,000	39,000	1.2	1,500	610,000	1.9	37,00
e y moo	Dolly Pot				340,000	1.7	18,000	47,000	1.6	2,400	390,000	1.7	21,00
	Python				340,000	1.7	18,000	180,000	1.8	10,000	520,000	1.7	28,00
Marda	Golden Orb				380,000	2.9	35,000	200,000	1.7	11,000	580,000	2.5	47,00
marua	King Brown				110,000	2.9 4.3	15,000	49,000	1.7	2,800	150,000	3.5	47,00
	Die Hardy				1,500,000	4.5 1.5	72,000	49,000 550,000	1.0 1.3	2,000	2,000,000	3.5 1.5	95,00
		360 000	17	10.000	1,000,000	1.0	12,000	550,000	1.5	∠3,000	2,000,000		95,00 19,00
	ROM & LG stocks	360,000	1.7	19,000	2 700 000	10	160.000	1 000 000	1 5	50.000		1.6	
Tomaia	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	nia			420,000	19.0	260,000	200,000	6.6	42,000	620,000	15.0	300,000

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

# **Mineral Resource Commentary**

Mt Magnet is comprised of numerous gold deposits contained within a contiguous tenement holding, located within an 8km radius of the Checkers processing facility. Ramelius has operated the project continuously since 2012. Current and recent mining operations include the Eridanus, Milky Way, Stellar and Vegas open pits and the Hill 60 and Shannon underground mines.

The Edna May mine was acquired in October 2017. It comprises of the large-scale Edna May granitoid hosted, stockwork deposit and the related, adjacent Greenfinch deposit. Two higher grade cross-cutting quartz lodes, the Fuji and the Jonathan, are being mined underground within the broader Edna May deposit. Mining at the Greenfinch open pit provided the major ore source during 2021 and has recently been completed. Marda and Tampia will form major mill feed sources going forward.

Vivien is a high-grade quartz lode deposit, located near Leinster. Mining commenced in 2015 and Vivien has been a steady contributor with ore trucked to the Mt Magnet mill.

Marda mining operations commenced in late 2019. It consists of seven mainly BIF hosted deposits being mined by open pit. It is located 130km north of Southern Cross and ore is hauled and milled at Edna May.

All deposits reported in this update have been depleted for mining during the 2021 financial year.

Continued exploration, resource definition and grade control drilling has delivered increases to resources and reserves for many of the deposits including Eridanus, Galaxy, Edna May, Shannon and Vivien.

See RMS ASX releases below for additional Mineral Resource reporting details:

- > 'Penny & Edna May Study Updates', 9 November 2020
- 'Mt Magnet & Edna May Study Updates', 28 January 2021
- 'Ramelius Mine Plan Increases 27% to 1.84Moz', 2 August 2021

Decreases were largely due to mining depletion with some minor re-modelling and/or re-classification.

The Tampia deposit is hosted within amphibolite facies mafic rocks 12km SE of Narembeen in the WA wheatbelt. Gold is hosted within shallow dipping lode/shear zones and associated with arsenopyrite. Mining commenced in April 2021 and ore is being hauled 140km to Edna May for milling.

Symes Find is located 120km SSE of Edna May, also in the WA wheatbelt, and consists of lateritic and primary mineralisation hosted in mafic gneiss units similar to Tampia.

The Penny project was acquired via the takeover of Spectrum Metals in early 2020. Penny West is a high grade quartzsulphide lode discovered and mined by open pit in the early 1990's. Spectrum discovered the high grade Penny North lode in early 2019 and rapidly drill defined a significant lode resource. Mining Approvals were received in 2021 and site infrastructure works are in progress.

All resources are based on combinations of RC and diamond drillholes. Sampling has been via riffle or cone splitters (RC) or by sawn half core. Assay is carried out by commercial laboratories and accompanied by appropriate QAQC samples. Generally a substantial proportion of drill data is historic in nature or gathered by previous owners, however Ramelius has added significant further drilling for all deposits, especially those forming Ore Reserves. Mineralisation has been modelled via cross-sectional interpretations using deposit appropriate lower cut-off grade envelopes and

geological interpretations. Geological understanding has formed the basis of all ore interpretations and is generated prior to grade interpretations. Ore domain interpretations have then been wireframed using geological software, including Micromine, Leapfrog & Surpac. Mineralisation has been grouped by domain where required and statistical analysis, topcutting and estimation is carried out using anisotropic search ellipses. Estimation uses Ordinary Kriging and/or Inverse Distance methods. Modelling has been undertaken with recognition of the probable mining method and minimum mining widths and the resource classifications reflect drillhole spacing, data quality, geological and grade continuity.

Density information for fresh rock is generally well established and new measurements have frequently been obtained. Nearly all deposits listed, with the exceptions of Tampia and Symes, have had some degree of recent production or historic mining. Resources are reported using cut-offs approximating an A\$1,800 - \$2,300/oz gold price.

Further details are commonly available in prior RMS ASX Releases for individual projects. Additional detailed information relating to generation of the Resource estimates is attached below in Table 1 – JORC 2012 Reporting Criteria.

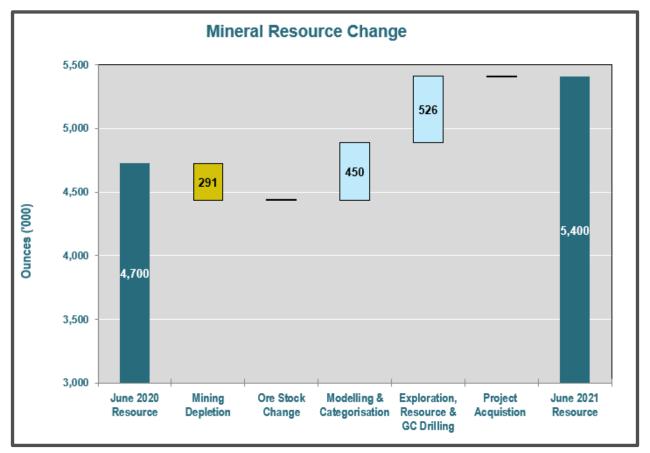


Figure 1: Mineral Resource Change

# **Mineral Resource Diagrams**

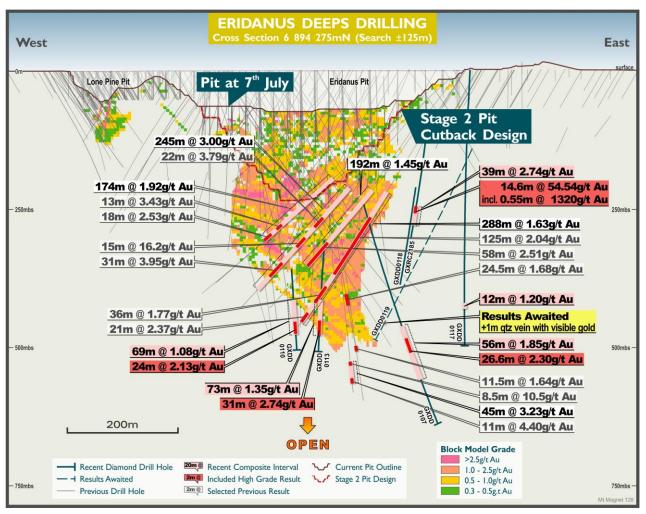


Figure 2: Eridanus Longsection - looking North showing Drilling & Model, July 2021

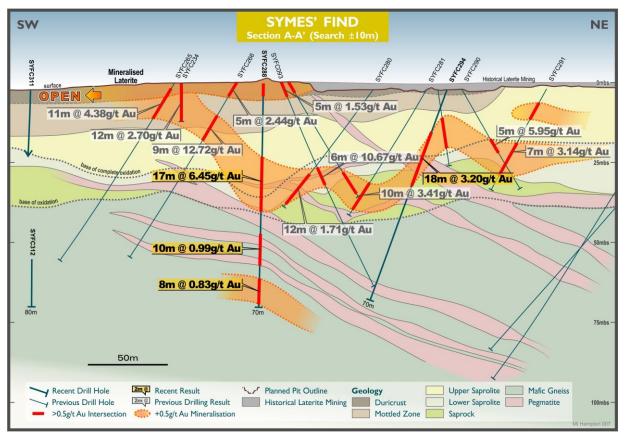


Figure 3: Symes Find section - view to NW - RMS drilling & geology

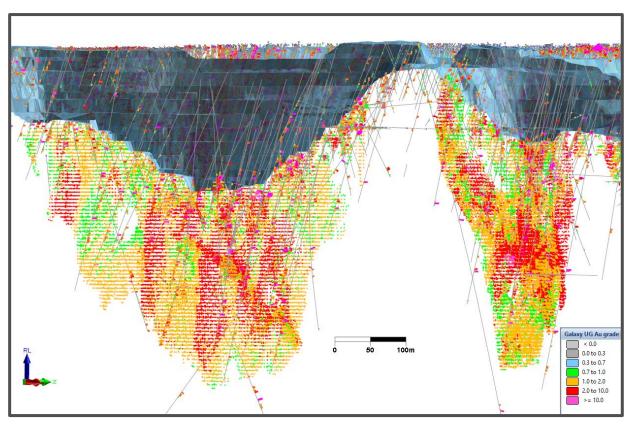


Figure 4: Galaxy Underground BIF Drilling & Model - 3D view to NW

# **ORE RESERVES**

#### Table B: Ore Reserves

		ORE R	ESERVI	E STATEME	NT AS AT 30	JUNE 2	021			
Project	Mine		Proven		ŀ	Probable		Total Reserve		
	WILLE	t	g/t	OZ	t	g/t	OZ	t	g/t	OZ
	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 Total	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
Т	otal Reserve	5,600,000	1.0	180,000	11,000,000	2.5	910,000	17,000,000	2.0	1,100,000

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

# **Ore Reserve Commentary**

All Ore Reserves have been estimated from Measured and Indicated Resources only. All current pit and underground operations were depleted to 30 June 2021.

All Ore Reserves have been generated from design studies using appropriate cost, geotechnical, slope angle, stope span, dilution, cut-off grade and recovery parameters. Ore Reserves are utilised in the current Mine Plan. Mining approvals processes are in progress for the Die Hardy open pit.

A maximum A\$2,250/oz gold price has been used to estimate Ore Reserves and determine appropriate cut-offs.

Mining, milling and additional overhead costs are based on currently contracted and budgeted operating costs. Mill recoveries for all ore types are based upon operating experience or metallurgical testwork. Stockpiles consist of ROM stocks & low-grade stocks mined under Ramelius's ownership.

Further detailed information relating to generation of the Ore Reserve estimates is attached below in Table 1 - JORC 2012 Reporting Criteria.

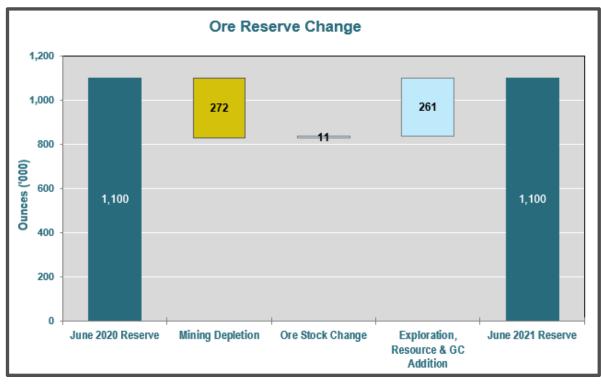
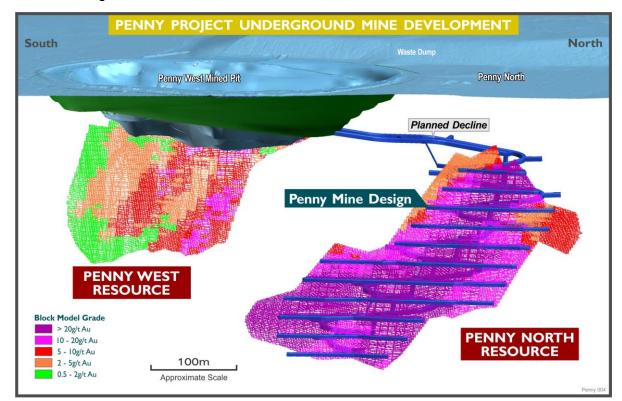


Figure 5: Ore Reserve Change



# **Ore Reserve Diagrams**

Figure 6: Penny 3D long section looking W, partial pit cutback & underground development design



Figure 7: Tampia Open Pit commencement, looking North, July 2021

# 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.

# **COMPETENT PERSONS**

The information in this report that relates to Mineral Resources and Ore Reserves is based on information compiled by Rob Hutchison (Mineral Resources) and Paul Hucker (Ore Reserves), who are Competent Persons and Members of The Australasian Institute of Mining and Metallurgy. Rob Hutchison and Paul Hucker are full-time employees of the company. Rob Hutchison and Paul Hucker 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". 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.

#### Table 1: JORC 2012 REPORTING CRITERIA

Section 1	Sampling Techniques and D	Data					
Project	<b>Mt Magnet</b> , includes Galaxy group, Cosmos group, Morning Star, Eridanus, Shannon, Hill 60 and numerous other deposits.	<b>Edna May</b> , includes Edna May UG lodes & Greenfinch deposit	Tampia	Marda	Vivien	Penny	Symes
Project History	Field discovered in 1891. Hill 50 UG mine operated 1934-1976 & 1981-2007. Recorded production of 6.0 Moz. Operated by numerous companies including WMC, Metana Minerals, Hill 50 Gold and Harmony Gold. Project acquired by Ramelius Resources Ltd (RMS) in 2010, with exploration, mining and milling recommencing early 2012. Ramelius gold production to 2019 is +600koz.	Discovered in 1911. UG mining of quartz reefs from 1911-47 producing 360koz. Modern mining comencing 1984 with Australian Consolidated Minerals, followed by Catalpa & Evolution. Total production over 1Moz. Acquired by Ramelius in 2017.	Discovered by BHP in 1987. Drilled by BHP and Nexus Minerals. Limited exploration until acqusition by Auzex Ltd in 2012. Company evolved into Explaurum Ltd and significant resource drilling conducted 2015-2018. Ramelius acquistion & drilling 2019.	Marda area discovered in late 1800's. Minor historical workings at Dolly Pot deposit. Modern exploration by Chevron 1980's, Cyprus Gold 1990's, Savage Resources late 1990's and Southern Cross Goldfields/Black Oak Minerals from 2011- 2014. Ramelius acquistion & drilling 2019.	Historic underground production in early 1900's. Early drilling by Asarco, Wiluna Mines and Australian Goldfields (AGFNL). Pit mined on 1997/98 by AGFNL. Major drilling by Agnew Gold Mining Company in 2000's. RMS acquisition & drilling 2013. Ramelius gold production to date is 150koz	Penny West was discovered and mined in early 1990's. Spectrum discovered Penny North Iode in early 2019 and drill defined high grade lode. Ramelius acquistion via takeover in early 2020.	The Symes Find mining lease has previously been drilled and mined by small scale prospectors and syndicates. Broad shallow workings occur to around 10m depth. RMS acquired the project in 2018 and commenced a series of drill programs.
Sampling techniques	Sampling was completed using a and a sub-sample collected via a remaining portion was laid out on 2m or 4m composites. Diamond D mineralised zones is not always s All sampling by conventional gold for all intervals. Sampling Technique details for hi incomplete or lacking for the majo cross-over subs which could affect samples and manually riffle split.	riffle or cone splitter. Tampi the ground for logging. Occ Drilling (DD) core was samp ampled. industry drilling methods. R storic drilling are often partia prity of older data or exists ir	a drilling used a Metzke p asional wet samples were led as 1m or geologically s eccent RC drilling has dup al or unknown. At Mt Magn hardcopy formats which	owered rotary splitter. A sp e not split but collected in a selected intervals. Core wa licate samples collected to net numerous reports exis have not been systematic	blit portion weighing 2-3kg a plastic bag then spear sa as sawn to provide half co test sample representivit t referencing similar metho ally investigated. Early RC	was in collected in number impled. Some historic san re samples for analysis. C y. Tampia drilling had dup ods of sampling, however drill sampling (pre 1990's	ered sample bags. The apples were collected as core outside lode or licate sample collected detailed information is b) is likely to have used

Drilling techniques	Recent (+2009): 2228 RC and 104 DD surface holes, plus UG DD holes. RC using face sampling bit. Diamond drilling (DD) consists of NQ or HQ drill core. Most core not orientated. <i>Old</i> : Exploration/resource database contains 74,000 holes, with around 23,000 RC and 5,000 DD. Not all hole types recorded. Older RC holes may have used cross-over subs. Some RAB, AC or VAC holes may be included in shallow resource estimates (i.e. surficial laterites). Underground drilling includes some smaller core sizes such as BQ and grade control sludge holes.	Deeper resource drilling below current pit is largely diamond or RC pre-collared diamond tail holes. The non-GC drill dataset is over 200,000m. 227 holes are greater than 200m and maximum depth is 835m. Typically NQ core. Ramelius drilled 108 holes (100 DD) for 13,715m in 2017/18.	Majority of drilling is 267 RC holes drilled by Explaurum in 2017, plus 53 RC holes and 63 'grade control' RC holes drilled by Explaurum/RMS in 2018-2019. 21 DD holes and around 100 earlier RC holes are also used to varying degrees. The Mace paleochannel zone has a further 350 short RC holes drilled in 2018.	Numerous holes drilled by Gondwana (1990's) and Southern Cross Gold (2011) as mostly RC drilling, plus moderate DD holes. RMS drilled a further 45 RC infill holes in 2019 which confirmed earlier drillholes.	Surface drillholes comprise 70 RC and 158 DD holes. DD holes are NQ size and normally have RC precollars. ≈80% of drilling is post 2002 and deeper holes are mostly Diamond. Ramelius drilled 12 infill, geotechnical and exploratory DD holes (3 x HQ3, 7 x NQ2) in 2013. Ezymark Core orientation. 155 UG DD holes drilled for 27,340m since 2016.	All Penny North lode drilling is new RC and DD completed by Spectrum or RMS in 2019 & 2020. Historic drilling from 1989 on exists for Penny West and Magenta lodes and used in combination with additional recent Spectrum & RMS infill drilling.	RMS has drilled 330 RC holes for around 15,000m. This drilling effectively replaces all historic drill data. Three diamond holes completed late 2020.
Drill sample recovery	Core recovery has been logged a recovery is generally not logged b Sample recovery at all deposits is dry chip samples or using significa	out noted if wet sample or of generally excellent in weat	her issues (rare). Voids re hered and fresh rocks. Re	elating to historic UG work	ings are logged as open o	r filled stope voids. d air capacity to maximise	recovery and provide
	interval accuracy. No indication of sample bias is ev	ident or has been establish	ed.				
	Recent drilling (+2009) has been retained for most RC holes. Older drilled and logged specifically for	drilling generally has a mir	imum of lithology is logge	d for +90% of holes, with	varying degrees of other in	formation. All projects hav	
Logging	Drillhole logging of RC chips & DE all projects.	D core is qualitative on visua	al recordings of rock formi	ng minerals & estimates c	of mineral abundance. Pho	tography exists for recent	(+2002) DD core from
	The entire length of drillholes are						
	Core holes are sawn and sampled have been hand split in some inst					re available were similar. C	Dld Mt Magnet core may
Sub-sampling techniques	Recent RC holes were sub-sample sampled from plastic bags or dried	ed by rig mounted cone or d and riffle split post drilling	riffle splitter. Tampia used	Metzke powered rotary s	plitter. Majority of old drillin	ig details unknown. Occas	ional wet samples spear
and sample preparation	Sub-sample methods appear app	ropriate for deposit and san	nple type using excepted i	ndustry practices.			
F. 562.01011	Recent RC samples have field du referencing similar methods, howe investigated.						

	All recent samples sub-sampled u analysis. At Tampia significant nu good to moderate correlation.										
	Sample sizes are generally appro may be less representative than la		terial types being sample	d, although nuggety gold e	xists at Edna May, Penny	/ & Shannon and small sar	nples, i.e. half NQ core,				
	Recent assaying (+2002) has all been by commercial laboratories including ALS, SGS, KalAssay and Genalysis, typically by 40-50g Fire Assay to give total contained gold. Subsequent Screen Fire Assays have been used for some high grade Fire Assays and replace earlier values. Historic assaying includes a number of techniques and laboratories and details are often incomplete or unknown. Some older Mt Magnet assays use PAL method conducted by onsite laboratories.										
Quality of assay data and laboratory	No field analyses of gold grades a pXRF analysis of Arsenic was cor						t Tampia handheld				
tests	Recent assaying (+2002) has had QAQC measures including certified reference standards, field duplicates, blank samples and umpire laboratory check samples carried out for all deposits and shows acceptable levels of accuracy and precision. For older data reports and tables exist, referencing similar QAQC methods, however detailed information is incomplete or lacking fo the majority of old data. Tampia resource drilling had significant QAQC measures conducted.										
	The Competent person has verifie	ed significant intersections of	of recent drilling during the	e resource modelling proce	SS						
Verification of	In most projects holes were not twinned deliberately, but there are frequent holes that effectively twin other due to varied drill angles, collar location limitations and hole density. All significant projects have holes drilled more recently as a check of older drilling data. The new Eridanus resource has a number of scissor and orthogonal holes drilled as checks and to understand geology. Tampia has an area of 10m x 10m infill drilling which overlaps earlier Resource drilling.										
sampling and assaying	Recent (+2002) data is captured using logging software (i.e. Field Marshall or Logchief)) and transferred to a central databases (i.e. SQL). Assay results are loaded electronically. All drillhole data is visually validated prior to resource modelling. For old data detailed information for verification of sampling and assaying is generally not available. In limited cases hardcopy data is available and checks have been conducted to verify original and electronic datasets.										
	No adjustment of assay data										
	Recent (+2002) collars have beer gyroscopic survey tools. Old: Coll surveys not available for all older camera tool.	ar survey method is not alw	ays recorded for all old ho	oles, however at Mt Magne	et and Vivien mine site sur	rveyors were available and	used. Downhole				
Location of data points	All new drilling post 2009 uses MGA94 grid. Local grids have been used for resource modelling of most deposits, unless they are parallel to MGA grid. Older holes may have been surevyed in local grid or AMG grids and then translated. Original survey coordinates are retained.										
	Quality topographic surfaces have been generated more recently from aerial photogrammetry or detailed surveys. Some older drillhole RL data has been adjusted to match accurate topography, i.e. Die Hardy (Marda)										
Data spacing and distribution	The majority of Mt Magnet deposits are drilled on a 25m based sections and frequently closed to 12.5m. On section hole spacing is generally 20- 50m, with spacings generally closer near surface and wider at depth. Some deposits are drilled on 20m section spacings.	Resource holes on 25m sections with variable 10-50m on section spacing. Density decreasing at depth.	Dominant resource pattern of 40m x 40m. Ramelius has added selected infill drilling on 20m infill sections on variable 20-50m spacings. 6 lines of 10m x 10m infill RC were included in the	Marda Central 12.5 sections x 12.5m, Golden Orb 20m sections x 8-20m, King Brown 12.5 sections x 6-10m, Die Hardy 40m sections x 10-20m,	Drilling pattern generally on 25m sections and 10-30m eastings.	Drilling largely of 40m sections with 30m hole spacing and some 20m infill sections.	Dominant pattern of 20m x 20m holes with frequent closer spaced infill (20m x 10m)				

	Drill spacing is sufficient to establ RC: Vast majority of samples are composited to 1m lengths for reso	1m, with minor 2 or 4m con			ond: 1m samples or geolo	gically defined 0.3 - 1.5m	samples. All data
Orientation of data in relation to geological structure	Orientation of geological structure and deposit geometry is varied at Mt Magnet. Intercept angles are usually orthogonal or high-angle to stratigraphy and vary to suit individual deposits. Mineralisation is frequently complex with structurally controlled stratigraphic and cross-cutting sub-vertical trends. Drillhole dip angles are generally at a moderate to high angle to steeply dipping stratigraphy and mineralisation.	Drillholes are orientated orthogonal to the geological and mineralised trend. Intercept angles are moderate to high angle. Typically as -60° south dipping holes drilling a steeply -80° west dipping gneiss unit. High grade UG quartz reefs have been targeted with orthogonal UG DD holes	Drillholes are orientated orthogonal to the geological and mineralised trend. Intercept angles are mostly at a high angle and often >85°. Typically as -60° northwest dipping holes drilling shallow 30° east dipping lode zones.	The core drilling and RC drilling is completed orthogonal to the interpreted strike of the deposits. A number of scissor holes exist at most deposits. Marda ore zones are generally vertical. Die Hardy - 40° SW dipping lode zone. New RMS drilling is -60° to the NE.	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° NW dipping holes drilling a -75° SE dipping lode zone.	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.	Drillholes generally orthogonal with vertical to -70° holes intersecting flat to shallow dipping supergene and lode zones.
	No bias considered present for al	I deposits. Minor potential for	or orientation bias for som	e individual holes exists, b	out no bias is believed evid	ent at deposit scales.	1
Sample security	Recent: All samples have been ca samples against the sample disp				v by commercial transport of	companies. The laboratory	v receipts received
Audits or reviews	No external audits or reviews of s	ampling techniques and dat	ta collection have been ur	ndertaken.			

Section 2	Reporting of Exploration Re	esults					
Mineral tenement and land tenure status	Mt Magnet resources and reserves fall within the contiguous Mt Magnet tenement group. Total of 62 Mining Leases and 6 Prospecting leases 100% owned by Mt Magnet Gold Pty Ltd, a wholly owned subsidiary of RMS.	Edna May falls within M77/88 owned 100% by RMS subsidary Edna May Operations Pty Ltd.	The Tampia deposit is located on M70/815 &M70/816, owned 100% by Ramelius.	Marda ore deposits are located on Mining Leases owned 100% by RMS subsidary Marda Operations Ltd.	Vivien falls within M36/34 owned 100% Ramelius Resources Ltd	Penny falls within M57/180 & M57/196 owned 100% by Ramelius subsidary Penny Operations Ltd.	Symes falls within M77/1111 owned 100% by Ramelius Resources Ltd
	Operating mine site. No known impediments.	Operating mine site. No known impediments.	RMS owns underlying freehold farmland. Operating mine site.	Previous 2014 mine plan was granted a Mining Approval & Clearing Permit.	Operating minesite.	Minesite in development at June 2021.	Lease is on Freehold land. Mining access deal to be completed.

Exploration done by other parties	In all deposits significant explorat Asarco, Wiluna Mines, Australian Southern Cross Goldfields. Penny surveys, data collation and model	Goldfields and Agnew Gold / - EastMet, Metana, GMA,	Mining Company. Edna I	May - Westonia Mines, AC	M, Catalpa. Tampia - BHI	P, Nexus, Explaurum. Mar	da - Chevron, Cyprus,			
Geology	Archaean gold mineralisation. Mineralisation is principally hosted within Banded Iron Formations (BIF) where gold is spatially associated with NE trending faults and associated with pyrrhotite or pyrite mineralisation. Additionally gold is commonly found in late stage felsic intrusives or structurally controlled zones which cross- cut stratigraphy on NE trend. Interpretation for Mt Magnet resources is based on a long- history of exploration, open-pit and underground mining. Numerous geological interpretations, pit fact maps and reports exist & almost all resources (except Eridanus) have been previously mined	Hosted by the Edna May Gneiss, a metamorphosed granitoid with strike length of 1km, width of 140m and depth extent of 700m and bounded by a mafic-ultramafic stratigraphy. Mineralisation relates to widespread quartz veining, which occurs as thin sheeted foliation parallel or larger cross- cutting reef veins with a polymetallic sulphide assemblage. Mineralisation forms a broad low-grade stockwork throughout the gneiss. Greenfinch deposit very similar.	Tampia is hosted within Archaean mafic- felsic granulite facies units. Gold mineralisation is hosted within a mafic gniess unit dominated by pyroxene- plagioclse -amphibole minerals. Late granitic sills intrude the mafic gniess. Gold mineralisation occurs as shallow dipping (20°-30°), 2-20m thick lode zones sub- parallel to the granitic sills. Gold mineralisation of associated with disseminated pyrrhotite, arsenopyrite, chalcopyrite and rare pyrite.	Mineralisation is likely controlled by shear zones/fault zones passing through competent BIF rock units, hosted with mafic/ultramafic stratigraphy. Gold is associated with pyrite alteration in brecciated BIF, +/- quartz. Deep weathering has likely generated supergene enhancement of gold within the weathered zone.	Vivien is a typical orogenic structurally controlled Archaean gold lode system. It is a steeply dipping narrow quartz vein hosted within a dolerite/gabbro unit. It has strong geological continuity and is well understood from diamond drill core and historic mining and investigation. Mineralisation is related to a secondary phase of quartz veining with associated sulphide 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 VG. High Ag grades (1:1 Au) are noted.	Shallow dipping gold lodes are hosted within mafic gneiss units, often occurring between intruding pegmatite sill units. Significant mineralisation occurs in shallow flat supergene or in surface laterites.			
Drill hole	This report relates to resources a previously reported.	nd reserves based on existi	ng drillhole datasets. No r	new exploration results are	reported. All previous RM	IS significant new drilling i	results have been			
information	This report relates to resources a previously reported.	nd reserves based on existi	ng drillhole datasets. No r	new exploration results are	e reported. All previous RM	1S significant new drilling I	results have been			
Data	No exploration results are reporte on deposit style and whether ope	d. Intercepts used in resour n pit or underground mining	ce modelling are typically scenario. Topcuts not ge	defined by cutoff and/or g nerally applied to drill inter	eological interpretation. Lo	ower reporting cutoffs vary	r from 0.4 to 2 g/t based			
aggregation methods	Weighted averages are applied to determine the grade of the anomalous interval when irregular sample intervals have been used.									
	No metal equivalents, gold only									
Relationship between mineralisation widths and intercept lengths	This report relates to resources a	This report relates to resources and reserves based on existing drillhole datasets. No new exploration results are reported. True width or relationship is generally reported where known.								
Diagrams	Appropriate plans and section are	e reported with previous RM	S drilling result releases	Example resource/reserve	nictures are presented at					

Balanced reporting	This report relates to resources and reserves based on existing drillhole datasets. No new exploration results are reported. All previous RMS significant new drilling results have been previously reported. Generally all holes are reported.
Other substantive exploration data	All deposits have had some degree of additional sampling or testwork in regard to geotechnical investigation, geochemical characterisation, metallurgical testwork and density measurement, usually on specific selected diamond core holes. Other exploration data is useful in understanding geology and mineralisation types but is generally not material to resource estimation.
Further work	Further work will consists of ongoing infill or extensional drilling on material projects likely to convert to reserves and extend mine life.   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
Database integrity	Recent (+2002): Ramelius employs an SQL central database using Datashed information management software. User access to the database is regulated by specific user permissions. Only specific users can overwrite data. Data collection uses Field Marshall or Log Chief software with fixed templates and lookup tables for collecting field data electronically. A number of validation checks occur upon data upload to the main database. Recent data from Edna May (Evolution), Vivien (AGMC), Tampia (Explaurum) & Penny (Spectrum) has employed similar measures. <i>Old</i> : The majority of data has been inherited as SQL or access databases and integrity measures is largely unknown. Numerous old resource reports list previous validation exercises, however new checks have not been systematically undertaken.
	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	The Competent Person is a full time employee of Ramelius Resources Ltd and has made multiple site visits to all deposits, except Symes. Visits have confirmed understanding of deposits and datasets.
	Confidence in the geological interpretation of the deposits is high. Most deposits have had a significant history of exploration and recent mining. Mining has just commenced at Tampia. Geological interpretations have been formulated over many years and multiple drilling campaigns.
	Data used includes drilling assays & logging from a number of generations of drilling. Numerous geological interpretations, pit or underground maps and reports exist and most resources have been previously mined to some degree. Drillhole geological logging and mapping data is the primary information used to interpret geological and fault wireframes.
	No alternate interpretations have been considered necessary
Geological interpretation	Geology forms the base component of all interpretations. At Mt Magnet mineralisation is principally hosted within Banded Iron Formations (BIF) where gold is spatially associated with NE trending faults and associated with pyrrhotite and pyrite mineralisation. Additionally gold is commonly found in late stage felsic intrusives which cross-cut stratigraphy in NE trend. For resource modelling the geology has generally been interpreted first followed by a separate interpretation of mineralisation envelopes. At Vivien & Penny mineralisation is hosted by a steeply dipping quartz veins within a mafic to intermediate stratigraphy and strongly associated with sulphide mineralisation within the vein. At Edna May is a large scale vein stockwork within an altered metamorphosed granitoid, with a number of higher grade quartz 'reefs'. Tampia mineralisation is hosted in a mafic gniess and occurs in shallow dipping lode/shear zones sub-parallel to the banding and granitic sills.
	Continuity is affected by geological extents and mineralisation as currently defined by drilling

Dimensions	Numerous variations. Examples: Saturn pit cutback 700m long, 350m wide & 190m deep. Main Saturn BIF hosted orezone strikes length of pit, is 5-30m wide, subvertical and currently drilled to 350m vertical depth. Higher grade zones typically occurring as vertical shoots in BIFs. Minimum width in resource interpretations generally 3-4m, example Golden Stream narrow sub- vertical BIF hosted resource over 270m strike length, drilled to 90m down-dip.	Edna May gneiss unit is a lenticular body, typically 50-150m thick, 1000m long and defined down-dip to 700m. It strikes east- west and dips N at 50- 60°. Internal high-grade quartz reefs occur and strike N-NE and dip 45- 50 W.	The deposit has a strike of 1000m, down- dip width of around 400m and depth extent of around 150m. The mafic gniess, granite sills and mineralised lodes have a shallow SE dipping, gently folded orientation forming a 'bowl' shaped geometry.	Lode and shear hosted styles. Strikes range from 140m (Dugite) to 450m (Golden Orb) and dip at 70-90°. Average lode width approximately 10m, mostly ranging between 2- 20m. Down-dip extents typically 50-75m.	Narrow vein/lode style. Strikes NNE and dips at 70° to ESE. Average width approximately 2.7m, ranging between 1- 7m. Established strike length of 600m and down dip extent of 400m.	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 250m by 200m. Penny West similar and Magenta & Columbia are much smaller.	The main shallow lode zone has a strike of 120m to NE and dips around 25° to the SE with a thickness of 4- 12m. Flat lying supergene zones are around 20-40m wide and 40-100m long. Laterite ore is extensive i.e. 500m x up to 200m, except where previously mined.
Estimation and modelling techniques	3D mineralisation wireframes are interpreted in Micromine. Often multiple domains were generated to reflect geological host, mineralisation style or local spatial trends and hard bound assay information at a nominal 0.2 - 0.5g/t (open-pit) cutoff. Estimation by anisotropic Ordinary Kriging or ID methods using 1m composited assay data in parent cells only. Eridanus uses a estimated grade indicator values (+/- 0.25g/t) generate ore & waste domains. Topcuts applied by domain determined by review of population stats. All resources have previous versions to compare. Models were validated visually against assay data.	The Edna May Gneiss unit forms the main mineralised domain and grades were generated within it using anisotropic Ordinary Kriging. Population statistics were reviewed and appropriate topcuts and parameters applied. Quartz reefs were constrained within interpreted lode shapes and estimated separately.	3D mineralisation wireframes interpreted in Micromine. Lode domains interpreted based on 0.2-0.5g/t cutoff and or/+400ppm As. A minimum thickness of 2-3m is used. Two internal high-grade sub domains where interpreted to control zones of notably higher grade. Grade within each domain is estimated using Inverse Distance <sup>1</sup> . Ordinary Kriging grades were generated and compared.	3D mineralisation wireframes interpreted in Micromine. Lode domains interpreted based on 0.6-0.8g/t cutoff. Hard bounded grade estimation by Inverse Distance method using 1m composited topcut assay data to parent cells only. Anisotropic search ellipse based on interpretation of continuity.	3D mineralisation wireframe interpreted in Micromine. Single lode domain interpreted based on quartz vein position, with minimum 1.5m downhole width. Grade estimation by Ordinary Kriging method using 1m composited topcut assay data to parent cells only. Anisotropic search ellipse using strike and dip and with NE plunge used reflecting previous interpretations and variography.	3D mineralisation wireframe interpreted in Micromine. Lode domains are interpreted based on quartz vein position, with minimum 2m downhole width. Grade estimation by Inverse Distance method using 1m composited topcut assay data to parent cells only. Anisotropic search ellipse interpreted plunge continuity to the south.	3D mineralisation wireframes interpreted in Micromine. Ore domains interpreted based on a nominal 0.5g/t cutoff. Hard bounded grade estimation by Inverse Distance method using 1m composited topcut assay data to parent cells only. Anisotropic search ellipse interpreted continuity.
	All deposits have previous resour occurred and allowed comparisor No by-products			st current estimates. Signif	icant mining by RMS at M	t Magnet, Vivien, Edna Ma	ay and Marda has also

	No non-gold elements of significa	nce. Low sulphur or sulphu	r directly related to ore gra	de material. Arsenic grad	e is estimated at Tampia	and used in the calculation	of mill recoveries.	
	Eridanus block size 5m(X) x 5m(Y) x 5m(Z) with limited subcelling (50%). Parent cell estimation only. Other deposits similar sizes - frequently 5m(X) x 10m(Y) x 2.5m(Z). Anisotropic searches - maximum range 120m	Block size 10m(X) x 5m(Y) x 5m(Z) with limited subcells (quartz reefs). Parent cell estimation only. Anisotropic search - maximum range 100m	Block size 5mE x 10mN x 5mRL with sub-cells to minimum of 1mE x 2mN x 1mRL. Parent cell estimation only. Anisotropic search - maximum range 100m	Block size typically 10mE x 5mN x 5mRL with subcelling to minimum of 2mE x 1mN x 2.5mRL. Parent cell estimation only. Anisotropic search - maximum range 75m	Block size 5m(X) x 5m(Y) x 5m(Z) with subcells. Parent cell estimation only. Anisotropic search - maximum range 65m	Block size 5mE x 10mN x 5mRL with frequent subcelling to minimum of 1mE x 2mN x 1mRL. Parent cell estimation only. Anisotropic search - maximum range 75m	Block size 5m(X) x 5m(Y) x 5m(Z) with subcells. Parent cell estimation only. Anisotropic search - maximum range 60m	
	Parent block size is generally ass	umed to match SMU size.						
	Grades assumed to correlate alor	ng mineralised trends/wirefr	ames and/or estimated us	ing anisotropic searches r	matching correlation direc	tions		
	Mineralisation wireframes are con	nstructed with reference to g	geological/mineralisation ir	terpretations				
	All gold deposits with lognormal g	rade distributions. Top cutt	ing used in all estimates as	s per normal industry prac	ctice, generally in 97.5 to 9	9.5 percentile range.		
	Validation has generally included visual comparison against drillhole grades, volume comparisons, global grade statistic comparison and swath grade plots							
Moisture	All tonnages are estimated on a d	-						
Cut-off parameters	Reporting cut-off grades are adop deposits interpretation cutoff is typ mineralised zone where gold grac geology, nugget effect and minea	pically in the 0.2 to 0.8g/t ra de is highly nuggety. These	nge. Tampia interpretation cutoffs encapsulate the m	n cutoffs range around 0.2 ineralisation effectively ar	-0.5 g/t Au and 200-400pp nd typically discriminate ec	om As. Arsenic is an impo	rtant indicator of the	
Mining factors	Eridanus, Morning Star and most economic cutoffs based on currer consideration of extraction by con bulked underground mining scena	nt contract mining equipmer aventional sub-level open st	nt and milling facilities. UG	deposits, including Galax	y, Hill 60, Shannon, Vivier	n, Edna May lodes and Pe	nny are modelled with	
Metallurgical factors	Metallurgical treatment is based of mill (Westonia), a 2.8Mtpa CIL go (≈50%) and high total recoveries ( been carried out. Recovery is vari grade for use in evaluations.	ld plant. Mt Magnet deposit (≈94%). Vivien is processed	is are currently or have rec at Mt Magnet with recover	cently been processed with pries of around 96%. For T	h recoveries around 91-94 Fampia siginifcant number	4%. Edna May has signific of historic and recent met	ant gravity recoveries allurgical tests have	
Environmental factors	All sites are now operating or rece Approvals processes are underwa			ant with all legal and regu	latory requirements. No si	gnificant environmental is:	sues are envisaged.	
Bulk density	All deposits have a number of der are enough to give representative provides an extra density measure	e average density values to	use in ore and waste tonn	age calculations. At Tamp				
	Density measurements are availa previous mining data and the CP's		ed measurements exist for	oxidised or transitional ma	aterials. Oxidised densitie	s used often include assur	ned values based on	

	All resources have dry densities assigned by geologically interpreted weathering horizon, plus rocktype where appropriate. At Vivien a variable density calculation is applied to fresh quartz lode based on ore grade. This fits with measured densities and the correlation between sulphide content with gold grade.
	It is assumed the deposit densities can be represented by the average values determined or estimated by rocktype and oxidation type.
	Mineral Resources have been classified into Measured, Indicated and Inferred categories based on drillhole spacing, geological confidence, information quality and grade continuity. Only a small proportion of resources have been classed as Measured and generally occur in areas of high drilling density where grade control data is available.
Classification	Appropriate account has been taken of all factors
	The classification reflects the Competent Person's view
Audits or reviews	The Edna May and Vivien mineral resource estimates have been reviewed by an external geological consultant. While a number of minor changes and enhancements were recommended, no significant flaws to the resource models were found. Historic drilling data information quality was not reviewed. Other Mt Magnet resources have not been externally reviewed. For Tampia a resource geological consultant was used to generate alternative slightly earlier versions of the resource and several methodologies were adopted from this work. This also gave a model for comparison.
Discussion of relative	All deposits have a number of previous resource estimates for comparison. Much of the drilling data used however is historic (exceptions Eridanus, Penny & Tampia) and methodology detail and quality assurance information is not always complete or in hardcopy records which have not been systematically investigated. Hence the bulk of resources have been assigned an indicated or inferred status. At the Mt Magnet deposits: Galaxy, Morning Star, Hill 60 and at Vivien, historic underground mining voids exist and surrounding remnant resources if existing are given a maximum of Indicated status. Confidence levels are reflected by the classifications applied and reported.
accuracy /confidence	The estimates are global estimates
	Many of the resources have current production data to compare, including, Eridanus, Shannon, Hill 60, Vivien, Marda and Edna May and reconcile within -10% to +20% of estimates.

Section 4	Estimation and Reporting of Ore Reserves							
Mineral Resource estimate for conversion to Ore Reserves	Mt Magnet ore reserves are based on revised resource estimates generated by RMS from 2012 to 2021	Edna May ore reserves are based on current Ramelius resource models	Tampia ore reserves are based on current Ramelius resource models	Marda ore reserves are based on current Ramelius resource models	Vivien ore reserves are based on current Grade Control model	Penny ore reserves based on current Ramelius resource model	N/A	
	Mineral Resources are reported inclusive of Ore Reserves							
Site visits	The Competent Person is a full time employee of Ramelius Resources Ltd and has made multiple site visits, except Symes. Visits have confirmed understanding of reserve work.							
	At Mt Magnet, Edna May and Vivien reserves are based on budgeted production, life of mine planning, feasibility and pre-feasibility studies conducted within the last 4 years.							
Study status	Ore Reserves have been generated after studies appropriate to the deposit type, mining method and scale and are considered to be at least Pre-Feasibility level carried out both internally and using external consultants with appropriate geotechnical, hydrological, equipment, metallurgical and mining method information. C current budgeted mining, milling and administration costs. Environmental, social and other factors have been considered internally.							
Cut-off Parameters	Cut Off grades vary between 0.6 and 0.9g/t depending upon haulage and processing costs of treatment plant. Cut Off grades are inclusive of administration overheads.							

Mining factors or assumptions	Models have been created with a parent block size to reflect likely SMU block size and mining resolution prior to optimisation and design work to generate ore reserves. Some models have had blocks regularised to generate an appropriate SMU size.					
	Appropriate mining methods are used. Open pit mining methods for open pit projects using current design, mining equipment and cost parameters. Selective open stoping underground methods are used for Mt Magnet & Edna May underground reserves. For Vivien and Penny a conventional, narrow, top-down, long hole stoping method, with partial backfilling is used.					
	Geotechnical parameters are derived from current mining practises and regular inspection & reporting by geotechnical consultants for all operating mines. All new projects have a number of geotechnical drillholes and assessments generated. Grade control processes are well established and generally consist of RC drilling within pits or face sample grade control and drilling in undergrounds.					
	Dilution factors are used for all pits and range between 2 - 15% based on deposit style, resource model block size, orientation and mining method. Underground ore reserves are based upon designed excavations indicative of planned dilution and additional unplanned dilution allowances.					
	Open pits mining recoveries range between 85-98%. Underground mining recoveries include allowances for designed pillars, minimum mining widths and unplanned dilution.					
	Generally a minimum width of around 3m is assumed for open pit and 1.5 - 2m for underground with increased applied dilutions for narrower widths.					
	Inferred mineral resources for pits have been tested in optimisations but are not included in Ore Reserves or final pit economic evaluations. The project viability is not dependent on the inferred resource.					
	Milling will use Checkers mill at Mt Magnet and Edna May mill, conventional gravity recovery and CIL processing circuits. Significant milling information historical and/or current testwork is available for all deposits.					
	Process is proven technology.					
Metallurgical factors or assumptions	For Tampia significant testwork was used to generate a recovery curve based on Arsenic grade. A recovery calculation is applied to the block model and recoveries range from 40-95%. Average recovery is partially dependent on ore cutoff grade but is around 87%. The Edna May mill will be operated to target grind size to 125µm for processing of Tampia ore.					
accumptione	No deleterious elements present					
	No bulk samples or bulk sample requirement					
	No specifications, gold					
Environmental	Environmental studies including waste rock characterisation studies from drill samples, flora and fauna and hydrological surveys have been carried out for all projects. Mining Approvals are currently granted for the Mt Magnet & Edna May & Marda pits. Mining Approvals are being prepared or in progress for the Die Hardy pit (Marda).					
Infrastructure	cture Site infrastructure is in place for current mining and milling operations. Additional infrastructure required and not yet in place to support the ore reserve include an airstrip and road upgr at Penny and road upgrades at Die Hardy (Marda).					
Costs	Capital costs based on current costs and budget model or recent Feasibility studies.					
	Operating costs based on current costs and budget models.					
	No deleterious elements present					
	Using recent average gold price					

	Cost models use Australian dollar				
	Transport (Vivien, Marda & Tampia ore haulage) cost based on contracted or quoted rates				
	Treatment costs based on known current milling costs. No penalties or specifications				
	Royalty costs are included in budget models, financial evaluations and feasibility models				
Revenue factors	All reserves are generated at \$2250/oz or less.				
Market assessment	Doré is sold direct to the Perth Mint at spot price or used to fill hedging obligations				
	Not industrial mineral				
	Discounted cash flows were carried out to determine relative NPV's, using a 5% annual discount rate.				
Economic	Sensitivity to gold price, grade and costs was also evaluated.				
Social	Agreements are in place with stakeholders including traditional land owner claimants, pastoralists and the local Shires for current operations. Additional agreements required at Penny, Tampia and Symes				
Other	No material risks or impacts are identified.				
	Reserves have been classified according to Resource classification. The majority are Probable with a limited amount of Proven				
Classification	They reflect the Competent Person's view				
	No probable reserves are derived from measured resources				
Audits or reviews	No recent external reviews				
Discussion of relative accuracy /confidence	Confidence is in line with gold industry standards and the companies aim to provide effective prediction for current and future mining operations. No statistical quantification of confidence limits has been generated. Estimates are global by deposit. The Ore Reserve is most sensitive to a) resource grade prediction, and b) gold price.				