

# **Ramelius Resources Limited**



**Mark Zeptner - Managing Director** 

**RIU Explorers Conference – 22<sup>nd</sup> February 2017** 



### Qualification



#### **Forward Looking Statements**

This presentation contains certain forward looking statements with respect to 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 Resources Limited 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 is based on information compiled by Kevin Seymour (Exploration Results) who is a Competent Person and Member of The Australasian Institute of Mining and Metallurgy. Kevin Seymour is a full-time employee of the company and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Kevin Seymour consents to the inclusion in this report of the matters based on their information in the form and context in which it appears.

### 2017 - Key Focus Areas



#### Mine-life extensions

- Extensional drilling at Mt Magnet (ongoing) & Vivien (Mar '17)
- Greenfields exploration follow up in the Tanami (Apr '17)

### **Fast-track project development**

- Accelerate project commencement;
  - Water Tank Hill underground (underway)
  - Milky Way open pit (mid-2017)
- Actively pursue value accretive opportunities

Maintain strong capital position

- Target for FY2017 of 135,000 ounces at AISC ~A\$1,050/oz
- Strong cash balance, nil corporate debt, risk mitigating forward sales ~A\$1,673/oz to June 2018
- Capital management options available

# **Corporate Summary**



Corporate Structure: at 31 January 2017						
Shares on Issue	525M					
Market Cap	<b>A\$315M</b> (US\$236M) @ A\$0.60/share					
Liquidity	30-day 4.5M shares					
Cash & Gold	A\$95M (US\$71M)					
Enterprise Value	A\$220M (US\$165M)					

Major Shareholders: at 31 January 2017	
Van Eck Ass. Corp.	16.0%
USAA Investment Mgt. Co.	2.6%
Ante (Tony) Guina	2.1%
Robert Kennedy	2.0%
Bell Potter Nominees Aust. Ltd	1.9%
Dimensional Fund Advisors LP	1.9%
IFM Investors	1.7%
Acadian Asset Management LLC	1.7%
Oppenheimer Funds	1.7%
Acorn Capital Ltd	1.5%
Top 20	41.7%

### **Share Price Performance (ASX:RMS)**

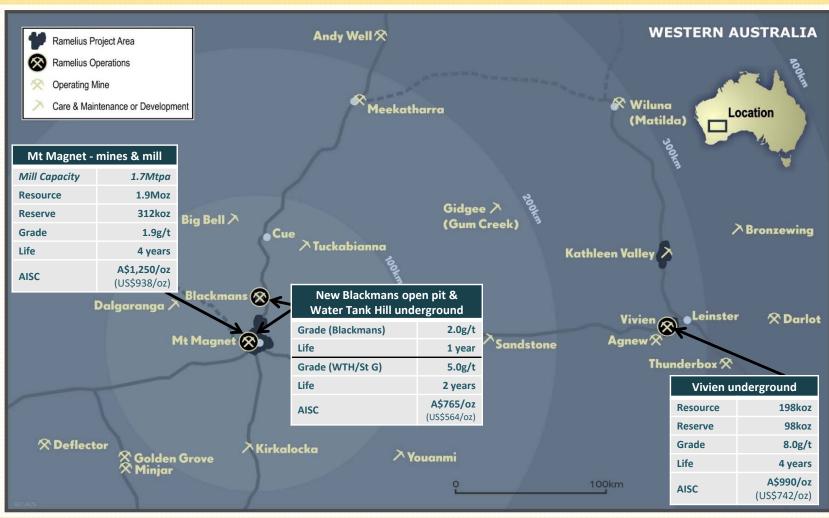


Board	
Robert Kennedy	Non Executive Chairman
Mark Zeptner	Managing Director
<b>Kevin Lines</b>	Non Executive Director
Mike Bohm	Non Executive Director
Dom Francese	Company Secretary

Management	
<b>Duncan Coutts</b>	Chief Operating Officer
Simon lacopetta	Chief Financial Officer
<b>Kevin Seymour</b>	GM Exploration & BD
Rob Hutchison	Mine Geology Manager
Tim Blyth	GM Mt Magnet Gold
<b>Danny Doherty</b>	UM Vivien Gold Mine

### **Operational Locations - Western Australia**





## **Operations - Galaxy open pits**





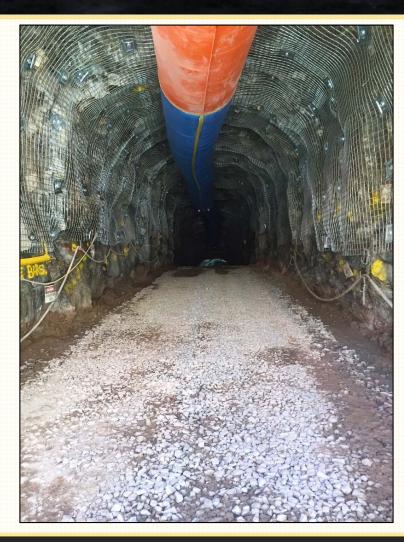
# **Operations - Blackmans open pit**





# **Operations - Water Tank Hill underground**

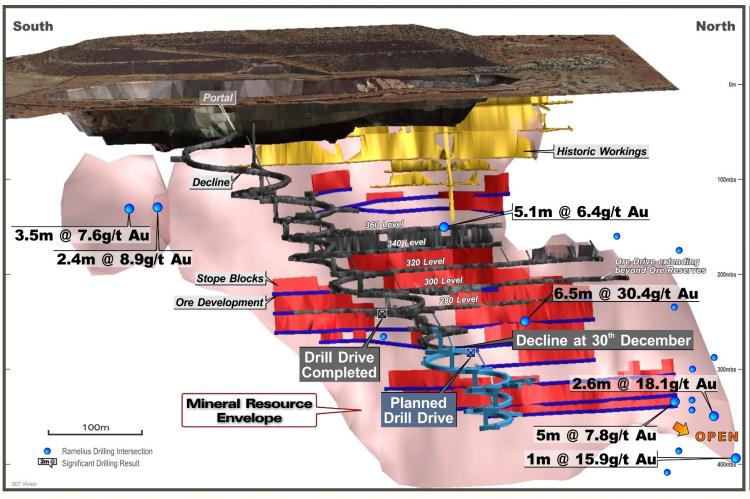






## **Operations - Vivien Gold Mine**



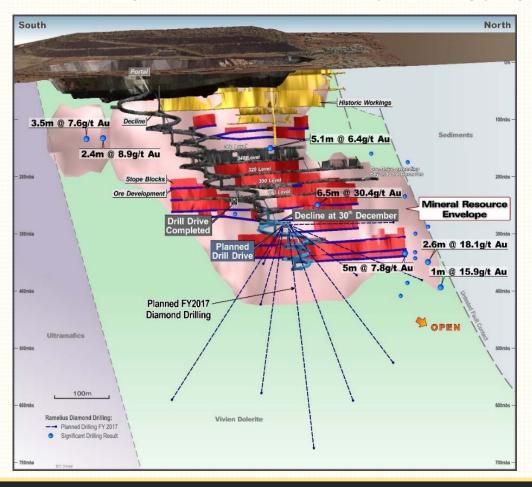


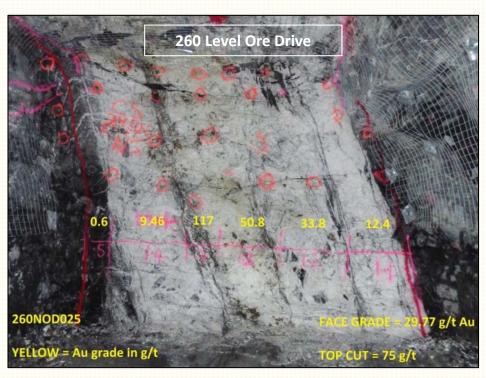


### **Mine Life Extensions - Vivien Gold Mine**



### Almost in position to commence deeper drilling program



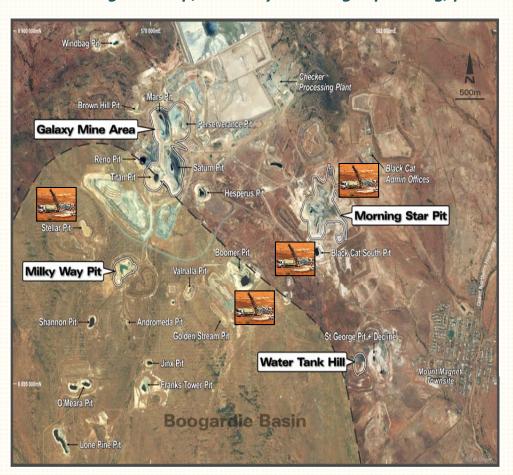


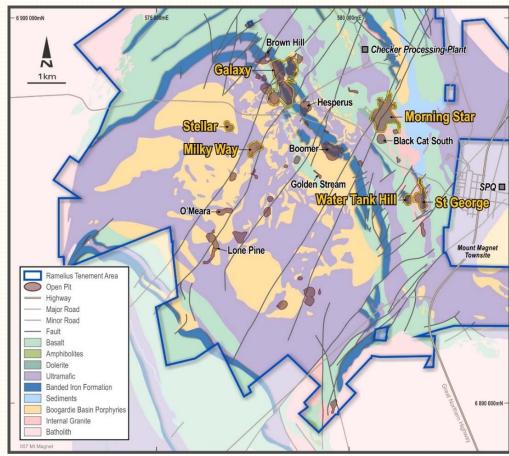
- Bottom drill cuddy (247mRL)
  - · Currently being developed
  - ~4,000m diamond drilling to commence in the current Quarter
  - Exploring for extensions outside current Resource (pink outline)

## Mine Life Extensions - Mt Magnet Gold Mine



> 6Moz gold camp, currently 4 drill rigs operating, plan to spend ~A\$9M in H2 FY2017 to extend mine life

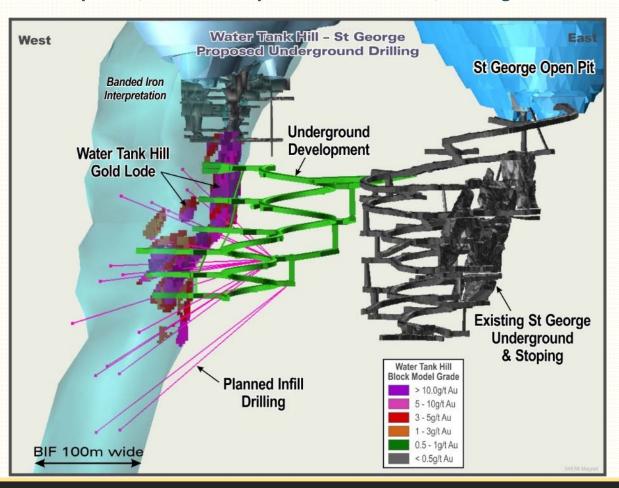




### **Mine Life Extensions - Water Tank Hill**



> Rehab completed, new development commenced, underground drilling planned for late 2017



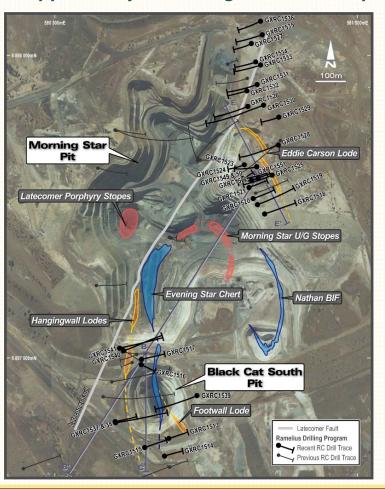
Physicals	Ore Reserve June 2016
Mine Life	2 years
Resource	105koz
Ore Reserve	53koz
Grade	5.0 g/t
Recovery	92.0%

Financials	PFS June 2015
Up Front Capital	<b>A\$11.5M</b> (US\$8.6M)
C1 Cash Cost	<b>A\$580/oz</b> (US\$435/oz)
AISC	<b>A\$765/oz</b> (US\$574/oz)
Total Cost (incl. Up Front)	<b>A\$1,006/o</b> z (US\$754/oz)

## Mine Life Extensions - Morning Star targets



### > Opportunity exists to grow current open pit Reserves & underground Resources



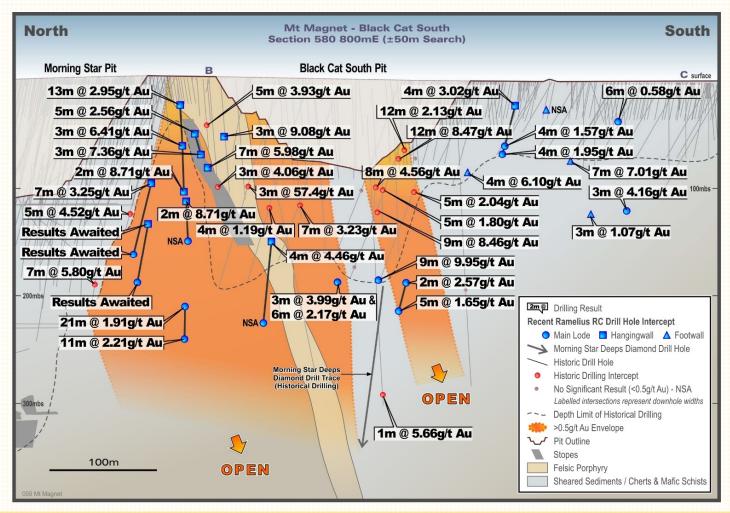
### **Historical Production**

Mino	Per	iod	Tannas	Grade	Ounces	
Mine	From	То	Tonnes	Grade		
Star Shaft	1893	1987	882,849	8.4	238,431	
Star Pit	1988	1993	6,178,030	3.4	675,346	
Low grade	1988	1993	1,783,000	0.85	48,727	
Star Decline	1993	2005	3,279,065	4.59	483,478	
Grand Total			12,122,944	3.71	1,445,982	

- Mining ceased in July 2005 (gold price A\$550/oz)
- Multiple lodes, with geological understanding increasing with additional drilling
- Existing pit depth 130mbs, underground 980mbs
- Hill 50 (Galaxy) was mined to ~1,500mbs

### Mine Life Extensions - Morning Star open pits





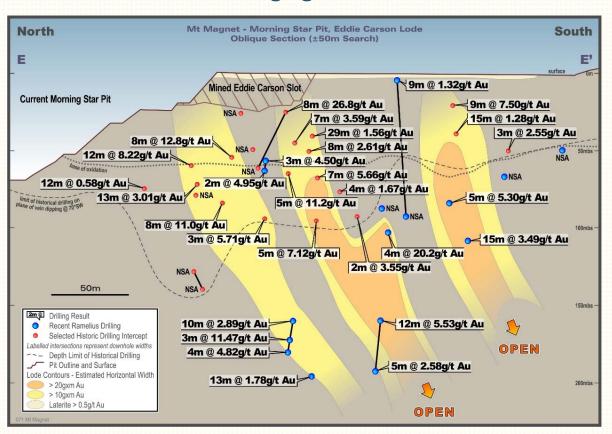
#### **Current open pit Ore Reserve**

- Morning Star 478,000kt @ 2.8g/t for 43koz
   (Mineral Resource of 1,770kt @ 1.8g/t for 103koz)
- Numerous additional hits between Morning Star & Black Cat South pit, south of Black Cat pit & below both pits
- Better results include:
  - > 9m @ 9.95g/t
  - > 7m @ 7.01g/t
  - > 12m @ 2.95g/t
  - > 7m @ 5.98g/t
  - > 4m @ 6.10g/t
- Results awaited for several holes below Morning Star open pit

### Mine Life Extensions - Morning Star open pits



■ Eddie Carson Lode — high grade narrow vein ore shoots plunging steeply southwest



#### **Eddie Carson Lode**

Released 31 January 2017

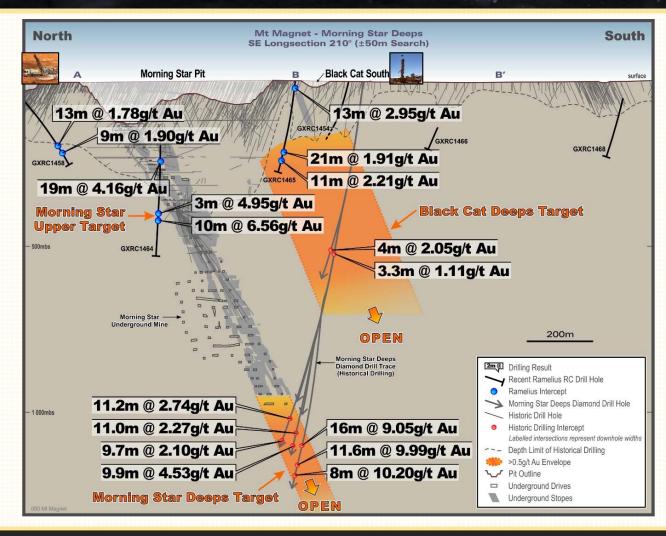
- > 15m @ 3.49g/t from 111m
- > 10m @ 2.89g/t from 166m
- > 3m @ 11.47g/t from 180m
- > 4m @ 20.21g/t from 113m
- > 12m @ 5.53g/t from 173m

**New results (see Appendix)** 

- > 3m @ 4.50g/t from 70m
- > 2m @ 4.95g/t from 79m
- > Additional drilling being incorporated into re-modelling of entire Morning Star open pit area

## Mine Life Extensions - Morning Star underground





### **Current u/g Mineral Resources**

### **Morning Star Upper**

- Nil Resources New Target
- 10m @ 6.56g/t (~80m from decline)

#### **Black Cat Deeps**

- Nil Resources New Target
- 4m @ 2.05g/t (undrilled zone)

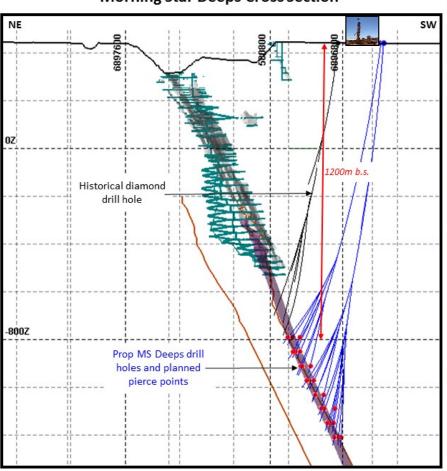
#### **Morning Star Deeps**

- 528,000 tonnes @ 4.7g/t for 79koz
- 8m @ 10.20g/t (deepest intercept)
- Not in current LoM plan
- Long-life potential based on expected orebody continuity

### Mine Life Extensions - Morning Star targets



#### **Morning Star Deeps Cross Section**



### **2017 Plan**

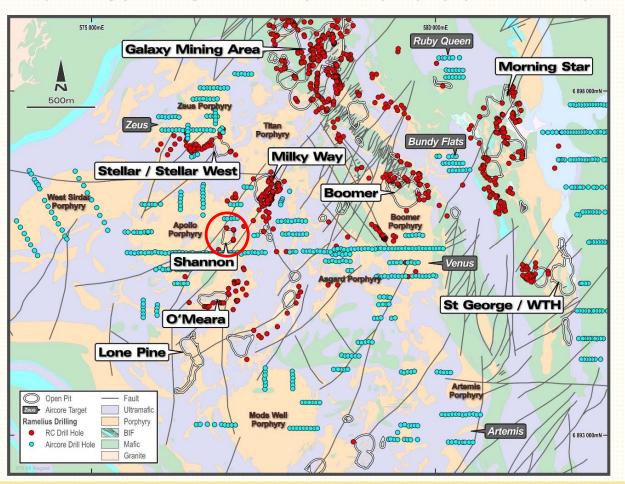
- Current Resource 79koz (from 980-1,200mbs)
- Exploration Target of 225-275koz @ 4-6g/t<sup>1</sup>
  - ➤ Based on 500ovm between 1,000–1,500mbs
  - > First 1,350m deep parent hole completed yesterday
  - Core to be cut & sampled, results awaited



## Mine Life Extensions - Porphyry targets



> Exploring for large, low strip ratio porphyry hosted deposits



#### Milky Way

- Mineral Resource of 3,918kt @ 1.3g/t for 164koz
- Ore Reserve of 1,875kt @ 1.3g/t for 78koz

#### Stellar & Stellar West

- Mineral Resources of 1,271kt @ 1.6g/t for 65koz
- Ore Reserve work in progress

#### Shannon

Several good intersections, resource modelling underway

#### Zeus

- 8m @ 12.20g/t from 65m
- 19m @ 1.31g/t from 32m

#### Venus

- · Broad area of low grade mineralisation
- Up to 28m @ 0.67g/t from 36m to EOH to date

#### Hesperus East

- 12m @ 2.44g/t from 26m
- 20m @ 1.23g/t from 31m

#### Artemis

 New area with 22m @ 0.69g/t from 48m depth (including 12m @ 1.01g/t)

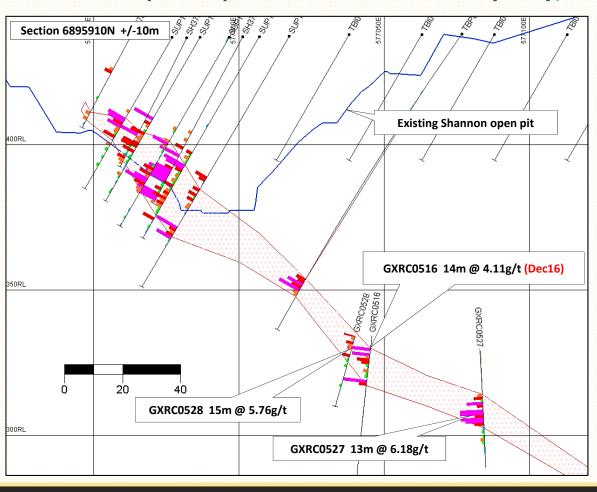
#### Bundy Flats

 New area with 16m @ 1.63g/t from 16m depth (including 4m @ 5.63g/t)

## Mine Life Extensions - Porphyry targets



### > Shannon deposit - potential addition to Milky Way/Stellar mine plan



#### Shannon

- New RC drilling (see Appendix) has displayed high grade intersections down dip from original pit including;
  - > 7m @ 11.4 g/t from 103m
  - > 5m @ 13.4 g/t from 105m
  - > 12m @ 1.95 g/t from 123m
  - > 13m @ 6.18 g/t from 138m
  - > 15m @ 5.76 g/t from 111m
- Re-running resource model & optimisation

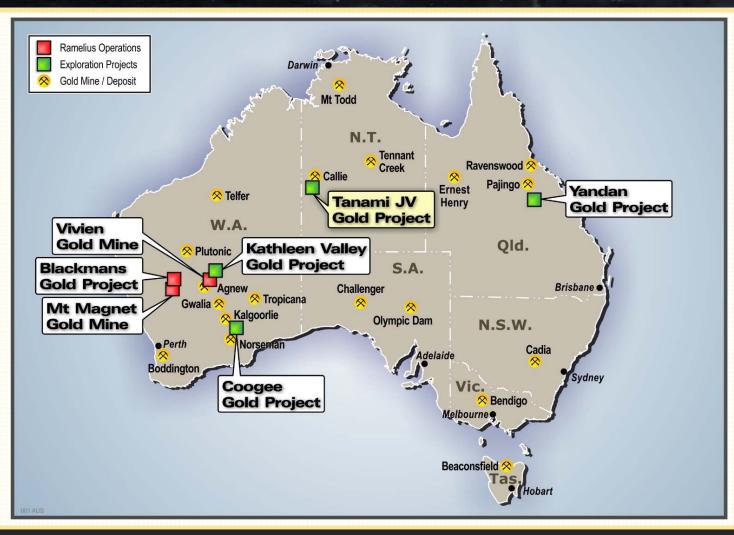


**Greenfields Exploration** 



## **Exploration - Project Locations**

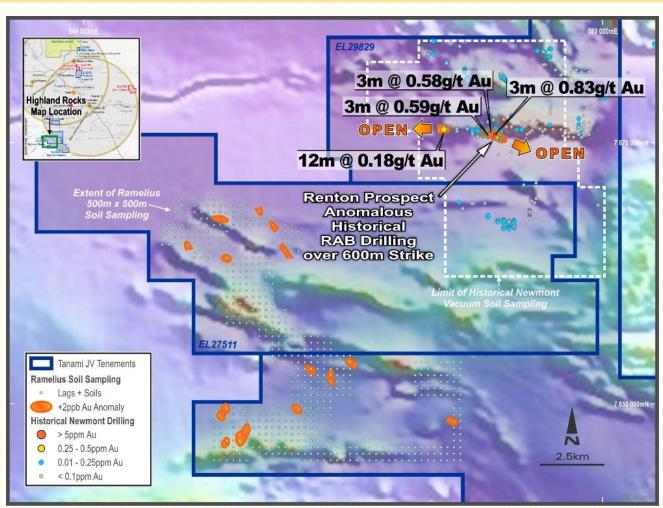




### **Exploration - Tanami JV (NT) → Ramelius 85%**



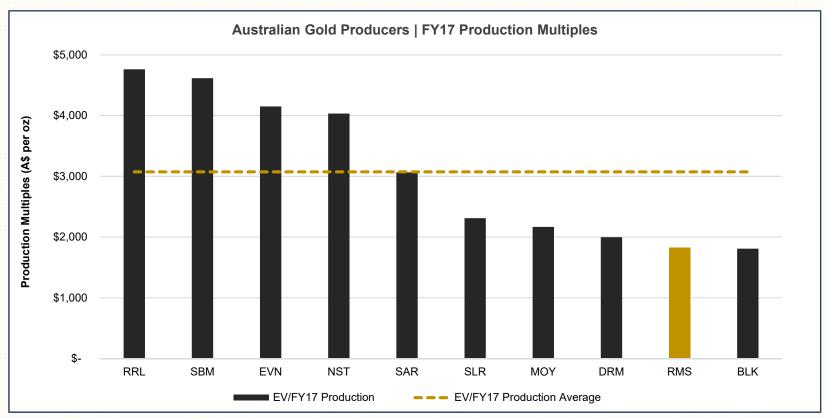
- 1,700km<sup>2</sup> of highly prospective geology
- Tychean (ASX: TYK) free carried through to DTM
- Strategic land holding within 100km of;
  - Newmont's +20Moz Callie Gold Mine, and
  - Granites Treatment Plant
- Highland Rocks granted December 2015
  - Completed 500m spaced reconnaissance soil sampling & regolith mapping over western half
  - Encouraging (2–5 ppb Au) soil & lag anomalies
  - RC drilling carried out in December 2016 Qtr
  - Soil anomalies to be followed up during 2017 field season



## Significantly undervalued gold producer



#### > RMS well below average EV/Production multiple based on 135,000 ounces in FY17



<sup>\*</sup> Based on FY17 production guidance or aspirational targets

<sup>\*</sup> EV data taken as at 31 December 2016

<sup>\*</sup> MOY production based on CY16 guidance

<sup>\*</sup> BLK production assumes 100koz in FY17 as per DFS

# Thank you





### **Exploration Targets, Mineral Resources & Ore Reserves Note**



For detailed information relating to Mineral Resources and Ore Reserves see ASX Release (RMS) 30 September 2016, 'Resources and Reserves Statement' and ASX Release (RMS) 31 January 2017, 'December 2016 Quarterly Activities Report'.

¹ Morning Star Deeps Exploration Target currently has no drilling between 1,200mbs and 1,600mbs. The target, based upon an extrapolation of the mined lodes within the historical underground mine will be tested by two deep parent diamond drill holes and approximately 20 daughter holes (wedges off the parents) that are designed to pierce the projected lode positions on nominal 40m centres, over 400 vertical metres, from 1,200mbs to 1,600mbs. The timeframe required to complete the drilling programme with one diamond drill rig is estimated to be eight months. Diamond drilling commenced in late January 2017. The grade range is based upon historical underground mine performance of the Star Decline depicted in Slide 16 until the closure of the Morning Star mine in 2005. Limited previous drilling to 1,200mbs (as previously reported – see ASX Release (RMS) 31 January 2017, 'December 2016 Quarterly Activities Report') confirms the continuity of gold mineralisation below the limit of historical underground mining to 980mbs.

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.

# Mineral Resource Statement



Measured			Indicated				Inferred		To	tal Reso	ource	
Deposit	Tonnes	Au	Au	Tonnes	Au	Au	Tonnes	Au	Au	Tonnes	Au	Au
	('000s)	g/t	Oz	('000s)	g/t	Oz	('000s)	g/t	Oz	('000s)	g/t	Oz
Galaxy	780	1.5	37,000	5,531	1.9	329,000	4,040	1.2	160,000	10,351	1.6	526,000
Morning Star				1,765	1.8	103,000	4	1.4	-	1,770	1.8	103,000
Total major deposits	780	1.5	37,000	7,296	1.8	432,000	4,044	1.2	160,000	12,121	1.6	629,000
Bartus Group	49	2.2	4,000	115	2.1	8,000	238	1.6	12,000	402	1.8	24,000
Blackmans				334	2.5	27,000	134	2.4	10,000	468	2.5	37,000
Boomer				1,194	1.8	68,000	786	1.0	26,000	1,980	1.5	94,000
Britannia Well				179	2.0	12,000				179	2.0	12,000
Bullocks				202	3.3	21,000	40	2.5	3,000	242	3.2	25,000
Eastern Jaspilite	146	2.2	10,000	121	2.8	11,000	134	2.5	11,000	401	2.4	32,000
Eclipse				167	2.2	12,000	41	2.1	3,000	208	2.1	14,000
Golden Stream				154	2.9	14,000	7	1.7	-	160	2.8	15,000
Hill 60							309	4.6	46,000	309	4.6	46,000
Lone Pine	199	2.5	16,000	277	1.7	15,000	147	1.7	8,000	623	1.9	38,000
Milky Way				2,660	1.3	114,000	1,258	1.2	50,000	3,918	1.3	164,000
O'Meara Group				231	2.5	18,000	151	1.5	7,000	383	2.1	26,000
Shannon	94	2.5	8,000	35	2.5	3,000	42	2.6	3,000	170	2.5	14,000
Spearmont - Galtee				25	2.9	2,000	207	4.3	28,000	232	4.1	31,000
Stellar	160	2.1	11,000	87	1.9	5,000	59	1.8	3,000	306	2.0	19,000
Welcome - Baxter	222	1.6	11,000	276	1.6	15,000	198	1.8	11,000	696	1.7	37,000
Total satellite deposits	869	2.1	60,000	6,056	1.8	345,000	3,751	1.8	221,000	10,676	1.8	626,000
Hill 50 Deeps	279	5.5	49,000	932	7.0	209,000	396	6.4	81,000	1,607	6.6	339,000
Morning Star Deeps				195	4.2	26,000	334	5.0	53,000	528	4.7	79,000
Saturn UG							1,607	2.5	127,000	1,607	2.5	127,000
St George UG	110	4.9	17,000	149	4.2	20,000	42	4.0	5,000	302	4.4	42,000
Water Tank Hill UG				229	6.6	49,000	89	4.9	14,000	318	6.1	63,000
Total UG deposits	390	5.3	66,000	1,504	6.3	304,000	2,468	3.5	280,000	4,362	4.6	650,000
Mt Magnet Stockpiles	313	0.9	9,000			-		=		313	0.9	9,000
Mt Magnet Total	2,352	2.3	172,000	14,857	2.3	1,081,000	10,262	2.0	661,000	27,472	2.2	1,914,000
Western Queen South				104	3.6	12,000	81	3.4	9,000	185	3.5	21,000
Coogee				31	3.6	4,000	65	3.3	7,000	96	3.4	11,000
Vivien				485	8.8	137,000	306	4.4	43,000	791	7.1	180,000
Kathleen Valley				238	3.7	28,000	523	2.5	42,000	761	2.9	70,000
Non Mt Magnet Total				857	6.6	181,000	976	3.2	101,000	1,833	4.8	282,000
Total Resources	2.352	2.3	172,000	15,714	2.5	1,262,000	11,238	2.1	762,000	29,305	2.3	2,196,000

For detailed information relating to Mineral Resources see ASX Release (RMS) 30 Sept 2016, 'Resources and Reserves Statement 2016'. No material change has occurred.

Note: Figures rounded to nearest 1,000 tonnes, 0.1g/t and 1,000 ounces. Rounding errors may occur.

# **Ore Reserve Statement**



				MENT AS AT 30 JUNE 2016			Total Reserve		
		Proven		Probable					
	Tonnes	Au	Au	Tonnes	Au	Au	Tonnes	Au	Au
	('000s)	g/t	Oz	('000s)	g/t	Oz	('000s)	g/t	Oz
Galaxy Pits									
Titan	667	1.4	30,000	483	1.4	21,000	1,150	1.4	51,000
Perseverance				162	2.4	12,000	162	2.4	12,000
Brown Hill				109	2.6	9,000	109	2.6	9,000
Morning Star Cutback									
Morning Star				478	2.8	43,000	478	2.8	43,000
Satellite Pits									
Milky Way				1,875	1.3	78,000	1,875	1.3	78,000
Boomer				132	2.9	12,000	132	2.9	12,000
Lone Pine				258	1.8	15,000	258	1.8	15,000
O'Meara				46	3.4	5,000	46	3.4	5,000
Golden Stream				95	3.0	9,000	95	3.0	9,000
Underground									
Water Tank Hill				176	6.5	37,000	176	6.5	37,000
St George	73	3.6	8,000	86	3.0	8,000	159	3.3	16,000
Stockpiles	313	0.9	9,000				313	0.9	9,000
Mt Magnet Total	1,053	1.4	47,000	3,900	2.0	249,000	4,953	1.9	296,000
Vivien Underground				382	8.0	98,000	382	8.0	98,000
Kathleen Valley	68	3.1	7,000	28	4.5	4,000	95	3.5	11,000
Total Reserves	1,121	1.5	54,000	4,309	2.5	351,000	5,430	2.3	405,000

For detailed information relating to Ore Reserves see ASX Release (RMS) 30 Sept 2016, 'Resources and Reserves Statement 2016'.

Note: Figures rounded to nearest 1,000 tonnes, 0.1g/t and 1,000 ounces. Rounding errors may occur.

# Appendix to RIU Explorers Conference February 2017 Presentation

Attachment 1: Significant (>0.5 g/t Au) RC drilling, Mount Magnet, WA

		N. a.	A /D:		F/Depth		T ( )	Interval	// A
Hole Id	Easting	Northing	Az/Dip	RL	(m)	From (m)	To (m)	(m)	g/t Au
GXRC0522*	577064	6895824	296/-55	439	120 Incl.	103 105	110 107	7 2	11.4 36.1
GXRC0523*	577027	6895800	309/-56	438	118	91	95	4	2.10
GXRC0524*	577057	6895828	300/-52	439	124 Incl.	105 105	110 106	5 1	13.4 47.5
GXRC0525*	577061	6895841	313/-60	439	135	111	117	6	1.20
GXRC0526*	577069	6895853	349/-71	439	175	123	135	12	1.95
GXRC0527*	577075	6895969	169/-67	439	210 Incl.	138 144	151 148	13 4	6.18 14.2
GXRC0528*	577068	6895973	209/-61	439	150	111	126	15	5.76
GXRC1528**	581236	6897704	249/-51	442	Incl. 244	<b>114</b>	<b>118</b> 20	3	<b>16.5</b> 1.01
						70	73	3	4.50
						<b>79</b> 90	<b>81</b> 92	<b>2</b> 2	<b>4.95</b> 1.09
						142	144	2	0.89
						214	215	1	2.75
GXRC1529**	581238	6897796	249/-60	443	124	24	25	1	0.70
OVD04500**	504400	0007005	040/ 57	445	200	75	77	2	3.95
GXRC1530**	581188	6897835	248/-57	445	329	1 17	2 20	1 3	1.10 1.22
						82	84	2	1.13
						156	157	1	0.58
						163	169	6	4.01
						179	183	4	0.73
						313	314	1	0.74
GXRC1531**	581167	6897903	250/-60	445	203	320 <b>26</b>	321 <b>29</b>	3	2.71 <b>6.42</b>
						35	42	7	1.24
GXRC1532**	581133	6897882	250/-62	445	137				NSR
GXRC1533**	581178	6897968	250/-65	445	215	41	43	2	2.68
						92	93	1	0.59
GXRC1534**	581162	6897978	250/-57	446	135	109	113	4	<b>4.90</b> NSR
GXRC1535**	581183	6898067	250/-60	445	179	21	22	1	0.60
G/((O1000	001100	0000007	2007-00	140	173	138	142	4	2.55
						166	176	10	0.95
GXRC1536**	581178	6898112	245/-60	447	161	117 124	121 127	4 3	0.85 1.80
GXRC1537***	580698	6896790	079/-55	444	119	124	121	Abn	Hole
GXRC1538***	580700	6896786	078/-62	444	293	101	102	1	2.52
						107	108	1	0.71
						116	118	2	3.29
				1		216 233	218 234	2	2.57
						233	234	1 1	0.95 0.73
				1		251	256	5	1.66
GXRC1539***	580968	6896875	245/-50	447	239	212	213	1	8.07
						224	233	9	9.95
CVDC4540***	500700	6007004	074/00	440	Incl.	229	230	1	77.2
GXRC1540***	580726	6897024	074/-63	448	251	<b>109</b> 123	<b>116</b> 251	<b>7</b> Results	<b>3.25</b> Awaited
GXRC1541***	580713	6897032	076/-67	448	275	0	275	Results	Awaited

Reported significant gold assay intersections (using a 0.5 g/t Au lower cut) are reported using 1m downhole intervals at plus 0.5 g/t gold, with up to 2m of internal dilution. Gold determination was by Fire Assay using a 50gm charge with AAS finishes and a lower limit of detection of 0.01 ppm Au. NSR denotes no significant results. True widths of the Shannon drill holes are estimated to be 81% of the reported downhole intersections. True widths of the reported mineralised intersections at Eddie Carson remain unconfirmed. With limited surface collar access, Eddie Carson Lode holes drilled azimuth west (250°) may be partially drilled down dip but additional infill drilling is required to confirm this, and/or the presence of multiple lodes. True widths of Black Cat South drill holes are estimated to be 60% of the reported down hole intersections. Coordinates are MGA94-Z50. Abn Hole denotes hole was abandoned due to excessive deviation away from its intended target.

- \* Denotes Shannon Deposit drill hole
- \*\* Denote Eddie Carson Lode drill hole
- \*\*\* Denotes Black Cat South drill hole

**Attachment 2:** Anomalous Aircore drilling 4m composite intersections (>0.40 g/t Au over 4m or greater) within the Boogardie Basin - Mt Magnet, WA.

Hole Id	Easting	Northing	Az/Dip	RL	F/Depth (m)	From (m)	To (m)	Interval (m)	g/t Au
GXAC0699	580606	6897748	360/-60	447	67	48	52	4	0.49
GXAC0700	580498	6897895	360/-60	447	84	36 56	48 60	12 4	0.76 6.03
GXAC0707	580498	6897855	360/-60	447	90	40	44	4	2.55
GXAC0718	580443	6893093	270/-60	422	73	64	68	4	0.49
GXAC0726	580394	6893443	270/-60	422	75	68	72	4	2.83
GXAC0738	579255	6890599	270/-60	429	55	8	12	4	3.03
GXAC0739	579308	6890607	270/-60	428	67	8 24	12 28	4	1.03 0.44
GXAC0742	579459	6890599	270/-60	432	55	28	48	20	0.66

Reported anomalous gold assay intersections are constrained using a 0.40 g/t Au lower cut for the 4m composite interval, with up to 4m of internal dilution. Gold determination was by Fire Assay using a 50gm charge with AAS finishes and a lower limit of detection of 0.01 ppm Au. NSR denotes no significant results. EOH denotes end of hole depth. True widths remain unknown at this stage of exploration. Coordinates are MGA94-Z50.

# JORC Table 1 Report for Mt Magnet, RC and Aircore 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 Mt Magnet potential gold mineralised intervals are systematically sampled using industry standard 1m intervals, collected from reverse circulation (RC) drill holes and 4m composites from reconnaissance Aircore traverses.</li> <li>Drill hole locations were designed to allow for spatial spread across the interpreted mineralised zone. All RC samples were collected and riffle split to 3-4kg samples on 1m metre intervals. Aircore samples are speared from piles on the ground and are composited into 4m intervals before despatching to the laboratory. Single metre bottom of hole Aircore samples are collected for trace element determinations</li> <li>Standard fire assaying was employed using a 50gm charge with an AAS finish for all RC and Aircore chip samples. Trace element determination was undertaken using a multi (4) acid digest and ICP- AES finish.</li> </ul>
Drilling techniques	<ul> <li>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).</li> </ul>	<ul> <li>Drilling was completed using best practice 5 ¾" face sampling RC drilling hammers for all RC drill holes and 3" Aircore bits.</li> </ul>
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>	<ul> <li>Bulk RC and Aircore drill holes samples were visually inspected by the supervising geologist to ensure adequate clean sample recoveries were achieved. Note Aircore drilling while clean is not used in any resource estimation work. Any wet, contaminated or poor sample returns are flagged and recorded in the database to ensure no sampling bias is introduced.</li> <li>Zones of poor sample return both in RC and Aircore are recorded in the database and cross checked once assay results are received from the laboratory to ensure no misrepresentation of sampling intervals has occurred. Of note, excellent RC drill recovery is</li> </ul>

Criteria	JORC Code explanation	Commentary
		reported from all RC holes. Good recovery is also noted for all Aircore samples.
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>	<ul> <li>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.</li> <li>Drill hole logging is qualitative on visual recordings of rock forming minerals and quantitative on estimates of mineral abundance.</li> <li>The entire length of each drill hole is geologically logged.</li> </ul>
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 every 25<sup>th</sup> sample from the RC and Aircore chips.</li> <li>Dry RC 1m samples are riffle split to 3-4kg as drilled and dispatched to the laboratory. Any wet samples are recorded in the database as such and allowed to dry before splitting and dispatching to the laboratory.</li> <li>All RC and Aircore chips are pulverized prior to splitting in the laboratory to ensure homogenous samples with 85% passing 75um. 200gm is extracted by spatula that is used for the 50gm 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 25<sup>th</sup> sample, a controlled blank is inserted every 100<sup>th</sup> 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>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>The fire assay method is designed to measure the total gold in the RC and Aircore samples. The technique involves standard fire assays using a 50gm sample charge with a lead flux (decomposed in the furnace). The prill is totally digested by HCl and HNO<sub>3</sub> acids before measurement of the gold determination by AAS. Aqua regia digest is considered adequate for surface soil sampling.</li> <li>No field analyses of gold grades are completed. Quantitative analysis of the gold content and trace elements is undertaken in a controlled laboratory environment.</li> <li>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.</li> </ul>

Criteria	JORC Code explanation	Commentary
		Additionally, sample size, grind size and field duplicates are examined to ensure no bias to gold grades exists.
Verification of sampling and assaying  Location of data points	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Alternative Ramelius personnel have inspected the RC and Aircore chips in the field to verify the correlation of mineralised zones between assay results and lithology, alteration and mineralization.</li> <li>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.</li> <li>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.</li> <li>No adjustments or calibrations are made to any of the assay data recorded in the database.</li> <li>No new mineral resource estimate is included in this report.</li> <li>All drill hole collars are picked up using accurate DGPS survey control. All down hole surveys are collected using downhole Eastman single shot surveying techniques provided by the drilling contractors.</li> <li>All Mt Magnet holes are picked up in MGA94 – Zone 50 grid coordinates.</li> <li>DGPS RL measurements captured the collar surveys</li> </ul>
		of the drill holes prior to the resource estimation work.
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>All drilling is reconnaissance in nature, looking for extensions to known mineralised systems. As such the drilling pattern is random and no true continuity has been confirmed to date.</li> <li>Given the limited understanding of the target horizons infill drilling will be necessary to help define the continuity of mineralisation.</li> <li>No sampling compositing has been applied within key mineralised intervals.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key</li> </ul>	<ul> <li>The RC drilling is completed orthogonal to the interpreted strike of the target horizon. Aircore drilling is completed on systematic MGA E-W (or N-S) traverses with holes nominally 50m apart.</li> <li>No diamond drilling (beyond the Morning Star Deeps drilling) has been completed by Ramelius at this</li> </ul>

Criteria	JORC Code explanation	Commentary
	mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	stage.
Sample security	<ul> <li>The measures taken to ensure sample security.</li> </ul>	<ul> <li>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.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>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.</li> </ul>

### Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The results reported in this report are on granted Mining Leases (ML) 58/136 + 187 and ML58/202 all owned 100% by Ramelius Resources Limited. 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.</li> <li>At this time all the tenements are in good standing. There are no known impediments to obtaining a licence to operate in the area.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Exploration and mining by other parties has been reviewed and is used as a guide to Ramelius' exploration activities. Previous parties have completed shallow RAB, Aircore drilling and RC drilling and shallow open pit and underground mining at Morning Star, plus drilling and open pit mining at Shannon plus geophysical data collection and interpretation throughout. This report concerns only exploration results generated by Ramelius since January 1 2017. These results have not been previously reported to the ASX.
Geology	Deposit type, geological setting and style of mineralisation.	• The targeted mineralisation at Morning Star and Shannon is typical of orogenic structurally controlled Archaean gold lode systems. The mineralisation is controlled by anastomosing shear zones passing through competent rock units, brittle fracture and stockwork mineralization is common on the competent BIF or porphyry rock. The bedrock Morning Star mineralisation currently extends over 700m strike and dips steeply westwards and plunges 60deg to the southwest. The historically mined lodes are known to extend to at least 1km below surface. Mineralisation at Shannon appears to plunge gently to the northeast. Eddie Carson is believed to strike NNW and dip steeply to the southwest but it is unclear how many lodes (veins) are present to date. Black Cat South consists of two subvertical lodes, representing the southern strike extension to the Evening Star Chert with the Morning Star pit
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> </ul> </li> </ul>	<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 report.</li> <li>Easting and northing are given in MGA94 coordinates as defined in the Attachments.</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</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>degrees vary by &lt;1º in the project area.</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</li> <li>Gold grades greater than 0.5 g/t Au are highlighted where good continuity of higher grade mineralization is observed.</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 0.1 g/t Au lower cut-off (as described above and reported in the Attachments) and may include up to 4m of internal dilution. Significant resource development drill hole assays are reported greater than 0.5 or 8.0 g/t Au and are also reported separately. For example, the broader plus 1.0 g/t Au intersection of 6.5m @ 30.5 g/t Au contains a higher grade zone running plus 8 g/t Au and is included as 4m @ 48.5 g/t Au. Where extremely high gold intersections are encountered as in this example, the highest grade sample interval (eg 1.0m @ 150 g/t Au) is also reported. All assay results are reported to 3 significant figures in line with the analytical precision of the laboratory techniques employed.</li> <li>No metal equivalent reporting is used or applied.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>The intersection length is measured down the length of the hole and is not usually the true width. When sufficient knowledge on the thickness of the intersection is known an estimate of the true thickness is provided in the Attachment.</li> <li>The known geometry of the mineralisation with respect to the drill holes reported in this report is not well constrained at this stage given the variable orientation of ore shoots historically mined at Morning Star.</li> </ul>
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant</li> </ul>	Drillhole plan and sectional views of Morning Star/Black Cat South pits have been provided previously. Drilling into the Eddie Carson Lode has

Criteria	JORC Code explanation	Commentary
	discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	now enabled a long section to be created, albeit the interpreted estimated horizontal widths contoured on the long section are yet to be verified with additional drilling required. Given the interpreted steep dips of the mineralisation at Morning Star the long sectional view presentation is currently considered the best 2-D representation of the known spatial extent of the mineralization intersected to date.
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>All drill holes completed to date are reported in this report and all material intersections as defined) are reported.</li> </ul>
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples         <ul> <li>size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul> </li> </ul>	No other exploration data that has been collected is considered meaningful and material to this report.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Future exploration includes infill RC and further step out drilling below and along strike of the reported intersections at Shannon, Morning Star, Black Cat South and Eddie Carson to better define the extent of the mineralization discovered to date. Deep exploratory diamond drilling into the Morning Star Deeps commenced in the March quarter 2017.</li> </ul>