# Australian Gold Producer with Outstanding Growth Opportunity



July 2018

ASX: BLK





- Gold production in Jun'18 half of 40,024oz at AISC of A\$1,294/oz (US\$961/oz)
- Free milling mine plan targeting 77k-89koz annual production at AISC of A\$1,250-1,450/oz
- Drilling has advanced brownfield opportunities to strengthen and lengthen reserves – focussed on building a "rolling" five year free milling mine plan
- Operating cash flows improving balance sheet and funding growth opportunities
- 1.2Moz reserves with long mine life
- Outstanding long-term upside from dominant land position and 6.5Moz (65Mt @ 3.1g/t) resource base

#### **Directors and Management** Milan Jerkovic **Executive Chairman Bryan Dixon** Managing Director **Greg Miles Non-Executive Director** Greg Fitzgerald Non-Executive Director **Tony James** Non-Executive Director **Richard Boffey Chief Operations Officer Chief Financial Officer** Anthony Rechichi **Capital Structure** Shares on issue 1.266 million Share price @ 16 Jul'18 6.9 cents Market capitalisation \$87 million \$8.4 million Net debt @ 30 Jun'18 \$96 million Enterprise value Options – quoted (8c, 31 Jan'19) 534 million **Options** – unquoted 55 million

# WILUNA GOLDFIELD – A PREMIER PRODUCTION ASSET

WILUNA

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- +1,100km<sup>2</sup> of tenure & 55km of strike in Australia's biggest gold belt – the Norseman – Kalgoorlie – Wiluna belt
- Regional endowment > 40Moz
- Resource 65Mt @ 3.1 g/t for 6.5Moz Au <sup>(1)</sup>
- Blackham has consolidated the Wiluna goldfield with all deposits < 20km from the plant</li>
- 4 separate large gold systems, providing good mix of base load open pit & high grade underground ore sources
- Matilda-Wiluna Operation has an 11Moz endowment
  - >4.4Moz of past production
  - Avg. of 101kozpa over last 27 years of operations









## **OPERATIONS GENERATING SOLID CASH FLOWS**





- 40koz production in Jun'18 half, demonstrating strong project economics:
  - moderate AISC (A\$1,294/oz)
  - processing rate of 2.02Mtpa at 84% recovery
- Free milling mine plan targeting 77k to 89koz annual production at AISC of A\$1,250-1,450/oz



# FOUR LARGE SCALE GOLD SYSTEMS



- Four large scale gold systems, capable of sustaining a sizeable long life operation
- Free milling resources of 22.8Mt @ 1.76g/t for 1.3Moz
- Free milling open pit mine plan is supported by Reserves at Matilda, Galaxy and Williamson open pit mines and the Golden Age underground mine
- Golden Age underground mine plan recently extended, further extensions being targeted
- Multiple drill ready targets
- Ongoing exploration drilling targeting a "rolling" free milling open pit mine plan of at least 5 years and "rolling" underground mine plan of 6-12 months

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# MATILDA OPEN PIT MINE

- Soft, deeply weathered oxide ore
- Grade increases below depletion zone
- 10km of stacked, repeating gold lodes with very limited drilling outside the immediate mine plan
- Very limited deeper drilling
- Matilda open pits have been generating operating cash flow since Jan'18

Matilda Resources (depleted to 30 June 2017)	Mt	Grade	koz
Measured	0.9	1.5	44
Indicated	6.2	1.8	350
Inferred	4.7	1.7	255
Total	11.8	1.7	649





# **GOLDEN AGE UNDERGROUND**

- Golden Age underground mine has generated strong cash flows for the last 3 quarters
- Successful move to owner operator predominately air leg mining method in October 2017 has reduced costs and risk
- Grades in March 2018 quarter averaged 7.6g/t Au
- Evaluation of the economics of the remaining UG resource of 0.9Mt @ 4.5g/t for 129koz Au ongoing
- Golden Age mining studies have now extended the underground mine plan another 6 months to December 2018
   @ ~3,000oz per quarter
- Exploration targets currently being drilled with the aim of increasing reserves and rate of mining









# **BUILDING A "ROLLING" 5 YEAR MINE PLAN**





- Advanced brownfields opportunities to strengthen and lengthen reserves
- Ongoing drilling focussed on achieving a "rolling" free milling mine plan of at least 5 years through extensions, resource conversion to reserves and discovery of new orebodies
- Multiple targets for additional mineralisation identified across multiple systems
- Initial drill program focussed on:
  - extensions of open pit oxide mineralisation at Matilda and Wiluna
  - Lake Way extensional and infill programmes
  - extensions at Golden Age to maintain a 6 to 12 month underground mine plan

### **OUTSTANDING IMMEDIATE GROWTH OPPORTUNITIES**



Lake Way All free milling targets

Matilda / Mentelle All free milling targets

Wiluna Free milling and sulphide targets

Wiluna Tailings Retreatment (Wiltails)

- Williamson 360Koz resource open along strike and down dip, with only 70Koz included in current mine plan
- Williamson South 22m @ 2.97g/t, 19m @ 2.63g/t open in all directions
- Carroll 20m @ 2.68g/t, 23m @ 1.53g/t open in all directions
- Prior 9m @ 5.30g/t, 6m @ 4.57g/t open in all directions
- Drilling of these sizeable targets commenced in May
- Matilda northern extensions intercept of 4m @ 13.9g/t 2km north of M4
- M11 intercept of 6m @ 13.9g/t Au
- Mentelle intercepts of 20m @ 1.27g/t Au and 6m @ 4.57g/t Au on sub-parallel structure to Matilda
- Golden Age extensions & offset high grade quartz vein hosted mineralisation results include 6.9m @ 15.5g/t Au
- Golden Age open pit high grade mineralisation results include 2m @ 28.3g/t Au and 6m @ 7.97g/t
- East/West cross structures drilling has identified high grade mineralisation from surface including 38m @ 2.3g/t Au from 0m and 16m @ 4.4g/t Au from 2m
- East/West open at depth and to the south
- Bulletin-Happy Jack oxide extensions
- **Regent** 270koz resource over 700m of strike open along strike and down dip, not included in current mine plan
- +30Mt of historical tails accumulated since 1984 Drilling completed awaiting resource estimate
- Last 13 years of operations tails grade averaged 0.72g/t. 27 initial air core holes drilled confirm averaged 0.71g/t.
- Scoping metallurgical test work suggests whole of ore CIL Leach achieves 42-50% recovery with no requirement to re-grind, or concentrate

# **GOLDEN AGE UNDERGROUND LOWER**

Underground drilling aimed at further extending the mine plan commenced late last month.

- Approximately 180Koz @ 9g/t Au has been historically mined from Golden Age Middle area.
- Blackham drilling located 150-300m below the current mining levels has intersected:
  - 6.9m @ 15.5 g/t Au 107 g\*m
  - 2.0m @ 11.8 g/t Au 23 g\*m
  - 3.0m @ 15.4 g/t Au & 0.5m @ 118g/t 46 g\*m
  - 2.0m @ 10.5 g/t Au 23 g\*m
- Golden Age successful drill results will see drilling programme extended further.
- Resources and reserves will be re-estimated off the back of these positive drill results.



## **GOLDEN AGE NORTH**



Amenable to open pit & underground drilling mining

Underground access within 200m of the Golden Age mineralisation

Underground drilling appears to have intercepted the Golden Age North structure at a depth of 370m below surface -**1.0m @ 15.5 g/t** Au GAGC0241



# WILUNA – FREE MILLING RESERVE POTENTIAL





- Generally oxide and transitional ore in the top 60m has been oxidised and is free milling
- During CY17 Blackham completed 77,000m of drilling into the Wiluna open pits which successfully delineated significant oxide and transitional open pit probable reserves
- Metallurgical results averaged leach recoveries on the oxide and transitional ores of 90.8% and 84.3% after 24 hours
- Drilling ongoing, targeting shallow free milling targets close to the plant
- Open pit resources and reserves to be revised following recent successful drilling

### **EW CROSS STRUCTURE – HIGH GRADE OXIDE FROM SURFACE**





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# LAKE WAY – LARGE TONNAGE FREE MILLING POTENTIAL 🕑 BLACKHAN

- High priority targets identified to extend free milling mine life
- Williamson Mineral Resource of 360koz
- Regent Mineral Resource of 270koz including 78koz of oxide
- 90,000m of air core drilling demonstrates potential for large tonnage open pits
- Auger drilling, gravity and SAM surveys have defined extensive new targets
- Very limited drilling into primary mineralization
- Multiple targets with >1g/t intercepts
- Last drilled 12 years ago. Reconnaissance and infill exploration drilling commenced in May 2018.



# WILLIAMSON – A 360koz RESOURCE





# LAKE WAY – CARROLL PRIOR PROSPECTS





# **REGENT PROSPECT**



- 270koz Mineral Resource including 78koz of oxide
- 700m of strike open in all directions
- Significant intercepts outside resource area excellent grades and widths
- Mining studies advanced more drilling to bring it into mine plan









### EXPANSION GROWTH STRATEGY ~ 3Mtpa @ 3g/t





## WILUNA OPEN PITS – VERY LONG AND HIGH GRADE



3.5km 270m Wiluna Open pits mine plan \$1800 Pit Optimisation 817koz @ 2.7g/t 13:1 SR (PFS) 2000mh Wiluna north resource increased 310koz 1000mN since PFS East - West New reserves to Reserve 637koz be estimated 2.8e/

Blue: West Lode UG 3.0g/t **Optimised Shapes** 

Orange: East Lode UG 3.0g/t **Optimised Shapes** 

Adelaide, **Moonlight**, Lone Hand Resource to be updated



290m

### East West Underground Mine Plan



Mining Inventory 1.6Mt @ 5.0g/t for 250koz



Extensive historical development to 600m depth

1.5Moz of historical production with stopes up to 30m wide

### East West Underground Opportunity





Blue: West Lode UG 3.0g/t Optimised Shapes Underground bulk mining assessments to be completed Orange: East Lode UG 3.0g/t Optimised Shapes





#### **Gold Peer Company Valuations**



Capital Group







- Free-milling production plan delivering operational cashflow
- Balance sheet significantly strengthened over last 6 months ~ Net debt A\$8M
- 1.2Moz reserves with long mine life
- Exploration programmes ongoing to strengthen and lengthen reserves multiple targets in multiple mineralised systems
- Outstanding long-term upside from dominant land position and 6.5Moz (65Mt
  @ 3.1g/t) resource with well defined geology

# CONTACT

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OPEN PIT RESERVES										
Mining Centre	Proven			Probable			Total			
	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	
Matilda Mine OP	0.9	1.2	37	2.2	1.6	114	3.1	1.5	151	
Galaxy OP	0.7	1.3	29	0.1	0.8	4	0.8	1.2	33	
Williamson Mine				1.4	1.5	67	1.4	1.5	67	
Wiluna Open Pits				7.7	2.7	669	7.7	2.7	669	
Stockpiles				0.4	0.9	11	0.4	0.9	11	
OP Total	1.6	1.3	66	12	2.3	865	13	2.2	931	
			U	NDERGROUND RE	SERVES					
Mining Centre	Proven			Probable			Total			
	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	
Golden Age UG	0.04	5.6	7	0.02	8.7	4	0.06	6.4	12	
East West UG				0.56	5.0	91	0.56	5.0	91	
Bulletin UG1				1.15	4.6	168	1.15	4.6	168	
UG Total	0.04	5.6	7	1.73	4.7	263	1.8	4.7	271	
Grand Total	1.7	1.4	73	13.6	2.6	1,128	15.2	2.6	1,201	

1) Bulletin Underground includes reserves from the Essex, Creakshear and Lennon underground mining areas

Calculations have been rounded to the nearest 10,000 t of ore, 0.1 g/t Au grade and 1,000 oz. Au metal. Refer to ASX release dated 30th August 2017 for additional details



OPEN PIT RESOURCES												
Mining Centre	Measured			Indicated			Inferred			Total 100%		
	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au
Matilda Mine OP	0.9	1.5	44	6.1	1.7	340	4.1	1.4	185	11.1	1.6	569
Galaxy	0.7	1.4	32	0.1	3.7	5	0.2	2.8	16	1.0	1.6	53
Williamson Mine				3.3	1.6	170	3.8	1.6	190	7.1	1.6	360
Wiluna OP <sup>1</sup>				13.6	2.6	1150	3.3	3.3	355	16.9	2.8	1,505
Regent				0.7	2.7	61	3.1	2.1	210	3.8	2.2	271
Stockpiles				0.4	0.9	11				0.4	0.9	11
OP Total	1.6	1.5	76	24	2.2	1,737	15	2.1	956	40	2.1	2,769
					UNDERGRO	UND RESOUR	CES					
Mining Centre	Measured			Indicated			Inferred			Total 100%		
	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au
Golden Age UG	0.1	4.2	8	0.2	7.1	46	0.6	3.8	75	0.9	4.5	129
Wiluna UG				8.2	5.5	1441	14.6	4.4	2086	23	4.8	3,527
Matilda Mine UG				0.1	2.5	10	0.6	3.6	70	0.7	3.6	80
UG Total	0.1	4.2	8	9	5.5	1,497	16	4.4	2,231	24	4.8	3,736
Grand Total	1.7	1.5	84	33	3.1	3,234	30	3.3	3,187	65	3.1	6,505

Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location shape and continuity of the occurrence and on the available sampling results. The figures in the Table above are rounded to two significant figures to reflect the relative uncertainty of the estimate. See ASX announcement 12 October 2017 for further information

### **DISCLAIMERS AND IMPORTANT INFORMATION**



This presentation includes certain statements that may be deemed 'forward-looking statements'. All statements that refer to any future production, resources or reserves, exploration results and events or production that Blackham Resources Ltd ('Blackham' or 'the Company') expects to occur are forward-looking statements. Although the Company believes that the expectations in those forward-looking statements are based upon reasonable assumptions, such statements are not a guarantee of future performance and actual results or developments may differ materially from the outcomes. This may be due to several factors, including market prices, exploration and exploitation success, and the continued availability of capital and financing, plus general economic, market or business conditions. Investors are cautioned that any such statements are not guarantees of future performance may differ materially from those not assume any obligation to update or revise its forward-looking statements, whether as a result of new information, future events or otherwise.

The information contained in the report that relates to Exploration Targets and Exploration Results at the Matilda/Wiluna Gold Operation ("Operation") is based on information compiled or reviewed by Mr Cain Fogarty, who is a full-time employee of the Company. Mr Fogarty is a Member of the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australianan Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Fogarty in Australianan to the still and context in which it appears.

The information contained in the report that relates to Mineral Resources is based on information compiled or reviewed by Mr Marcus Osiejak, who is a full-time employee of the Company. Mr Osiejak, is a Member of the Australian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is 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'. Mr Osiejak has given consent to the inclusion in the report of the matters based on this information in the form and context in which it appears. With regard to the Operations Mineral Resources, the Company is not aware of any new information or data that materially affects the information included in this report and that all material assumptions and parameters underpinning Mineral Resource Estimates as reported in the market announcements 12 October 2017 continue to apply and have not materially changed.

The information contained in the report that relates to Ore Reserves for the underground mines at the Operation is based on information compiled or reviewed by Matthew Keenan. Mr Keenan confirmed that he has read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012 JORC Edition). He is a Competent Person as defined by the JORC Code 2012 Edition, having more than five years' experience which is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which he is accepting responsibility. Mr Keenan is a Member of The Australasian Institute of Mining and Metallurgy, has reviewed the Report to which this consent statement applies and is a full time employee working for Entech Pty Ltd having been engaged by Blackham Resources Ltd to prepare the documentation on which the Report is based, for the period ended 30 June 2017. He disclosed to the reporting company the full nature of the relationship between himself and the company, including any issue that could be perceived by investors as a conflict of interest. Mr Keenan verifies that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in his supporting documentation relating to Ore Reserves.

The information contained in the report that relates to Ore Reserves for the Operations Open Pits is based on information compiled or reviewed by Steve O'Grady. Mr O'Grady confirmed that he has read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012 JORC Edition). He is a Competent Person as defined by the JORC Code 2012 Edition, having more than five years' experience which is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which he is accepting responsibility. Mr O'Grady is a Member of The Australasian Institute of Mining and Metallurgy, has reviewed the Report to which this consent statement applies and is a full time employee working for Intermine Engineering Consultants having been engaged by Blackham Resources Ltd to prepare the documentation for the Operation on which the Report is based, for the period ended 30 June 2017. He disclosed to the reporting company the full nature of the relationship between himself and the company, including any issue that could be perceived by investors as a conflict of interest. Mr O'Grady verifies that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in his supporting documentation relating to Ore Reserves.

The information contained in the report that relates to Ore Reserves for the Golden Age Underground is based on information compiled or reviewed by Richard Boffey. Mr Boffey confirmed that he has read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012 JORC Edition). He is a Competent Person as defined by the JORC Code 2012 Edition, having more than five years' experience which is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which he is accepting responsibility. Mr Boffey is a Member of The Australasian Institute of Mining and Metallurgy, has reviewed the Report to which this consent statement applies and is a full time employee working for Blackham Resources Limited and prepared and reviewed the documentation for the Golden Age Underground area at the Operation on which the Report is based, for the period ended 30 June 2017. He disclosed to the reporting company the full nature of the relationship between himself and the company, including any issue that could be perceived by investors as a conflict of interest. Mr Boffey verifies that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in his supporting documentation for Reserves.