



# Australian gold producer with exceptional growth opportunity

ASX : BLK

Diggers and Dealers Kalgoorlie Aug 2017

### **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, and actual results or performance may differ materially from those projected in the forward-looking statements. The Company does 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 Gold Project is based on information compiled or reviewed by Mr Bruce Kendall, who is a full-time employee of the Company. Mr Kendall 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Kendall 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.

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 Matilda/Wiluna Gold Operation 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 dated 3rd August 2017 continue to apply and have not materially changed.

The information contained in the report that relates to ore reserves at the Matilda Gold Project is based on information compiled or reviewed by Matthew Keenan. Matthew 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 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. He is a Member of The Australasian Institute of Mining and Metallurgy, has reviewed the Report to which this consent statement applies and is an employee working for Entech Pty Ltd having been engaged by Blackham Resources Ltd to prepare the documentation for the Matilda Gold Project on which the Report is based, for the period ended 17 June 2016. 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. He 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.





# Gold producer with exceptional growth opportunity

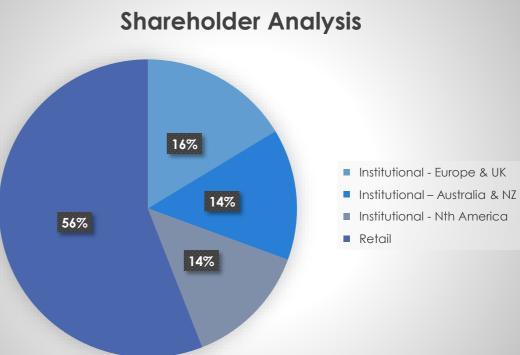
- Matilda/Wiluna Gold production commenced in Oct' 2016
- FY17 Gold production 39,400oz
- Market cap ~ A\$13/resource oz with strong liquidity
- Resource 6.2Moz @ 3.1g/t, 4 large scale gold systems & over 1,000km<sup>2</sup> landholding<sup>(1)</sup>
- +3 years worth of oxide reserves
- Initial Expansion Study confirmed plan to grow production beyond 200kozpa with long mine life<sup>(2)</sup>



#### **BOARD OF DIRECTORS & KEY MANAGEMENT**

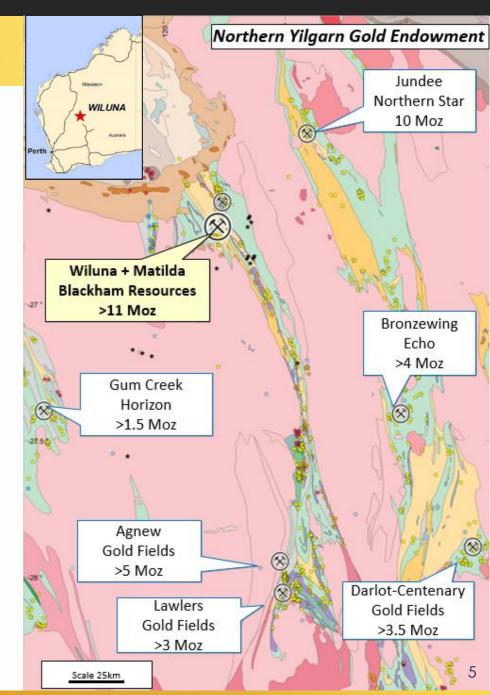
Bryan Dixon	Managing Director	Mining Develop't & Corporate
Milan Jerkovic	Non-Exec Chairman	Mining Develop't & Operation
Greg Miles	Non-Exec Director	Geology & Mining Evaluation
Peter Rozenauers	Non-Exec Director	Mining Finance & Corporate
Richard Boffey	General Manager	Development & Operations





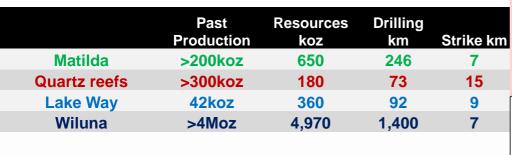
### Australia's biggest gold belt

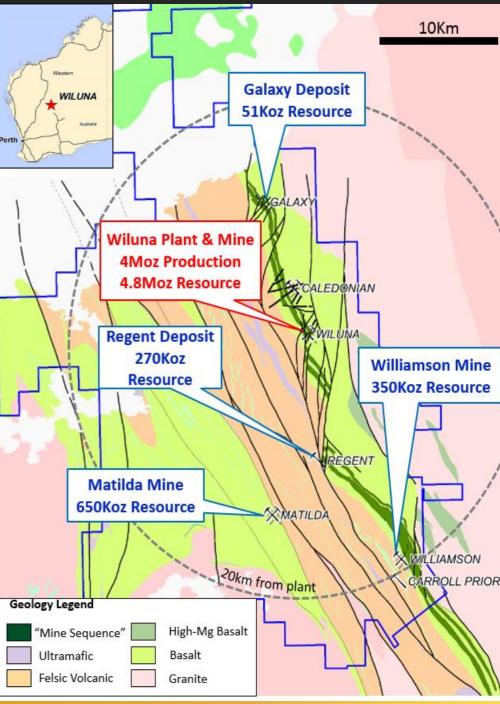
- In Australia's largest gold belt stretching from Norseman through Kalgoorlie to Wiluna
- Regional endowment > 40Moz
- Matilda/Wiluna Operation has over 11Moz endowment including
   >4.3Moz of past production – largest endowment in region
- Positioned economic development of existing resources and new discoveries



#### Large scale geology

- Resource 61Mt@ 3.1 g/t for 6.2Moz Au (1) - 51% Indicated Resource level
- Consolidated Wiluna goldfield with all deposits < 20km of plant</li>
- Good mix of open pit & high grade UG ore
- +1,000km<sup>2</sup> of tenure & 55km of strike
- 4 large gold systems capable of sustaining a long mine life
- Average gold production of 101,000ozpa over 27 years of operations





	Dec'16 Qtr	Mar'17 Qtr	Jun'17 Qtr	YTD
Total Milled (t)	211,200	338,000	416,100	965,300
Mill Feed Grade (g/t Au)	1.5	1.5	1.3	1.4
Overall Plant Recovery	88.5%	93.7%	91.7%	91.7%
Gold Produced (oz)	8,773	14,920	15,720	39,413

#### Table 1 – Gold production increasing quarter on quarter

#### Sept'17 Qtr gold production stronger

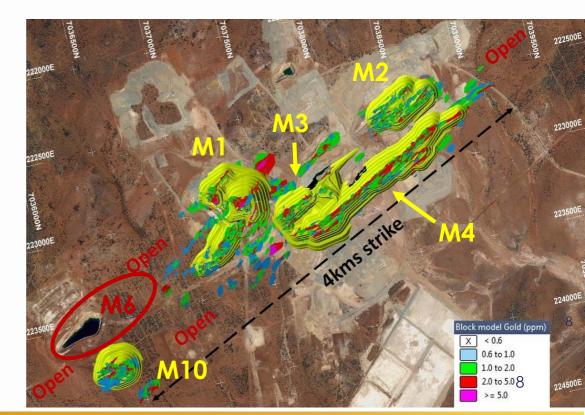
- Targeting throughput 450,000t for Sep'17 Qtr
- Low grade stockpiles made up 25% Jun'17 Qtr plant feed
- Open pit high grade ore for Jul'17 1.6g/t Au
- Grade control ore models reconciled with in 2% of the milled grade for FY17.
- 80% of the FY18 years mining ore has been grade controlled
- Costs per ounce decreasing
- Stripping ratio in FY17 14:1 reducing to 6.4:1 in FY18
- Mining costs per BCM and processing cost per tonne in line with DFS

### Matilda Mine – Base Load Ore



- 10kms stacked, repeating gold lodes
- Soft, deeply weathered oxide ore
- Production (1987-1993):
  - 2.2 Mt@ 2.6g/t = 181,000oz au
- Mine Plan
- Soft rock & ore with significant free dig
- Designing new M6 pit to the south following recent drill success
- Currently mining M4 pit which is 2kms long

Resources	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

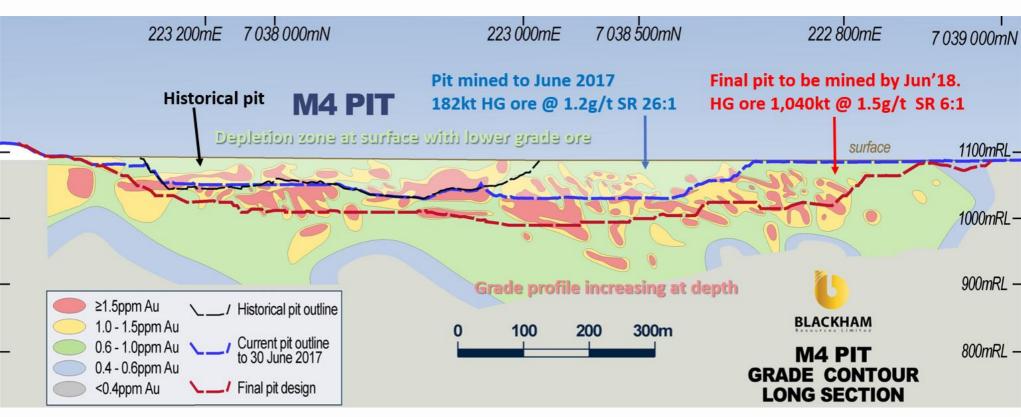


#### Matilda Mine – Base Load Ore



In FY 2017-18

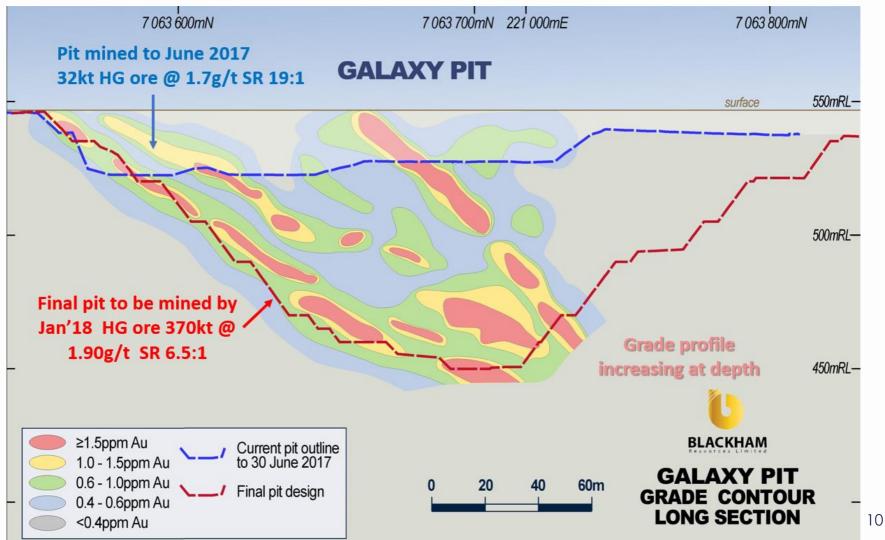
- Average grade increasing
- Strip ratio decreasing



#### Galaxy orebody



#### Same story for Galaxy

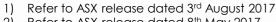


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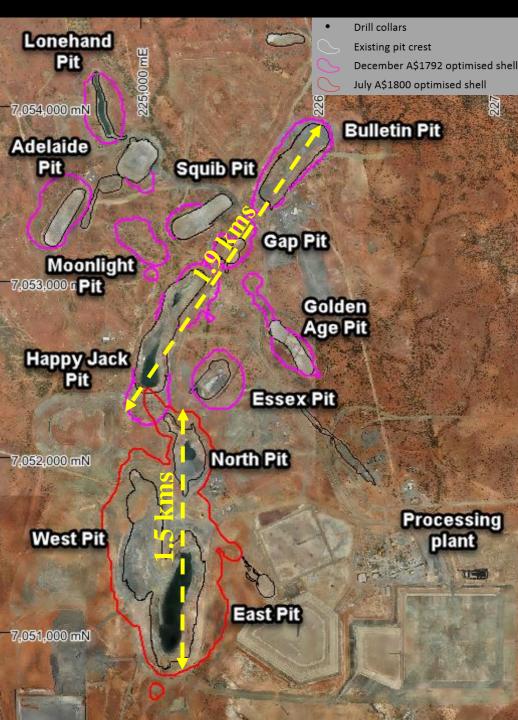
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# Stage 2: Wiluna 5.0Moz

- Total resources 40Mt @ 3.9g/t for 5.0Moz <sup>(1)</sup>
  - OP resources 17Mt@ 2.7g/t for 1.5Moz
  - UG resources 23Mt@4.8g/t for 3.5Moz
- Operating data gives good understanding of processing costs & recoveries
  - 83% average recoveries over 20 years
- Mining plan the key to unlocking the value
  - Substantial mine development 5 declines
  - 2 open pits and 2 declines operating gives flexible and sustainable mine plan
- Feasibility and scoping confirms sulphides are economic - AISC A\$1,170/oz<sup>(2)</sup>
- 50,000m infill and extension programme completed
- Estimating maiden Wiluna open pit reserves following successful maiden resources



2) Refer to ASX release dated 8th May 2017



#### Wiluna Expansion Study confirms +200kozpa long mine life opportunity

Initial Expansion Study Highlights<sup>1</sup>

Combined processing capacity of 3.2Mtpa and to maintain +200,000ozpa gold production

- Targeted Production 1.3Mtpa and growing
  - Base load Open Pit Mining Inventory
    14Mt@2.0g/t for 890koz
  - High grade Underground Mining Inventory 4Mt@4.9g/t for 630koz
  - Total Mining Inventory
    18Mt@2.7g/t for 1.52Moz
- LOM All in sustaining costs A\$1,170/oz or U\$\$860/oz
- Expansion PFS due out this month following 50,000m of drilling

#### Wiluna Expansion Study confirms +200kozpa long mine life opportunity

#### **Initial Expansion Study Highlights**

- Staged pathway to a flexible processing facility capable of unlocking the value of the both oxide and sulphide resources
- Combined oxide/sulphide operation has the ability to produce over 200,000oz Au per annum with a long mine life
- 50,000m Wiluna open pit resource and reserve drilling programme completed has the potential to strengthen and lengthen the base load reserves profile
- Wiluna underground has **21Mt @ 4.6g/t for 3.1Moz** outside the mine plan with the economics still to be fully evaluated which will include assessing bulk mining opportunities
- Ability to finance expansion capital out of Stage 1 cash flow and debt re-sizing

# East West Pit - large scale pit getting bigger

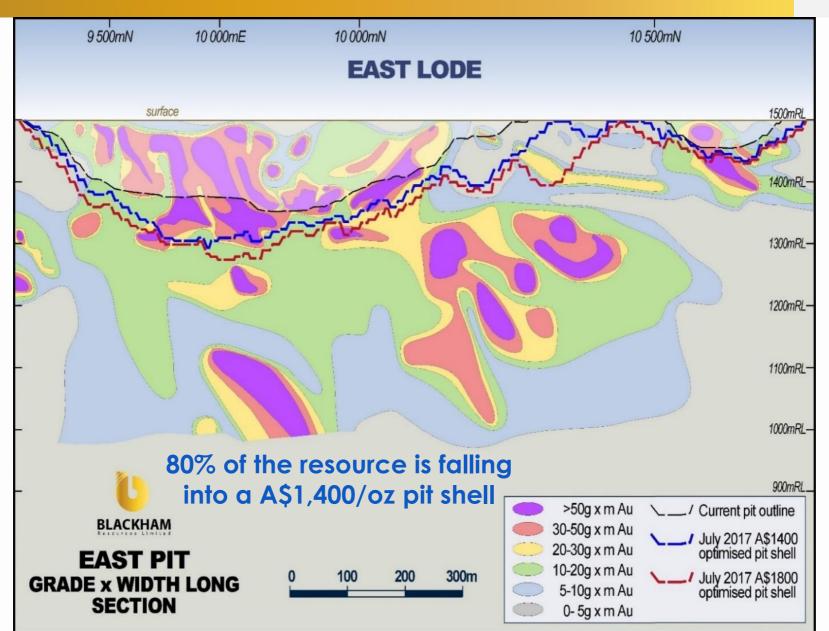


- PES open pit 5.6Mt @ 2.3g/t for 424,000oz & 9:1 strip ratio<sup>(1)</sup>
- Open pit resources for East and West lodes now 8.5Mt @ 2.8g/t (diluted) for 770,000oz within an A\$1,800/oz pit shell (76% Indicated)<sup>(2)</sup>
  - high grade for an open pit
  - 23% increase in grade on a diluted basis compared with previous model
  - 80% of the resource in a A\$1,400/oz pit shell
  - Ore Reserves to be published this month
- Resource has grown 860% in less than a year from 80,000oz to 770,000oz (76% Indicated). Very low resource addition cost of \$5.80/oz.

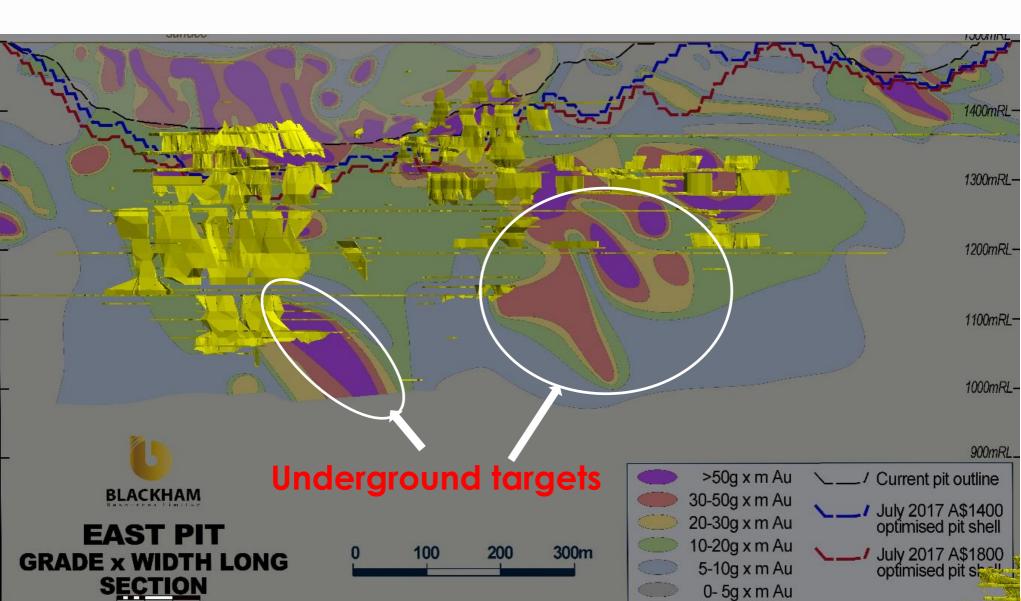


- Refer to ASX released dated 8<sup>th</sup> May 2017 Refer to ASX release dated 3rd August 2017

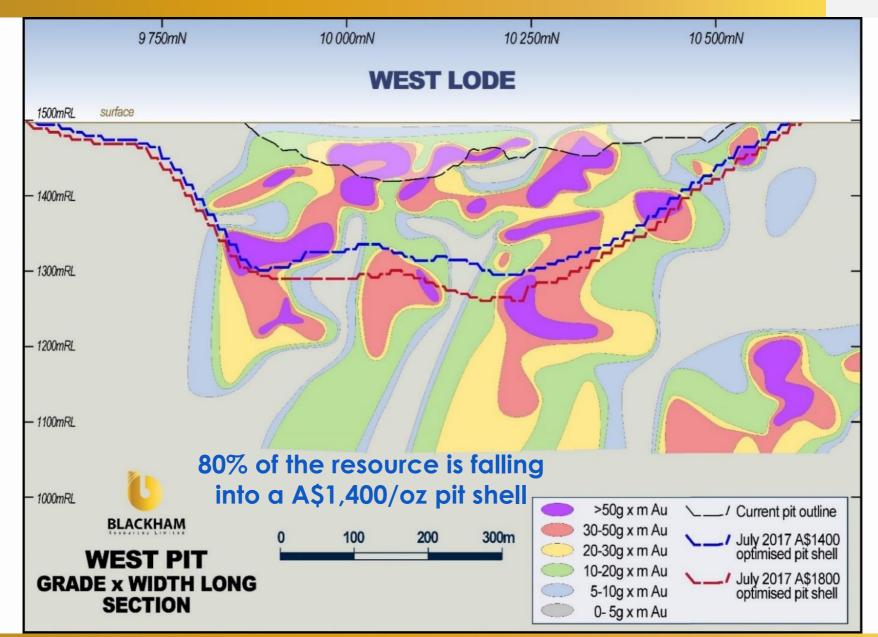
### East West Pit - large scale pit getting bigger



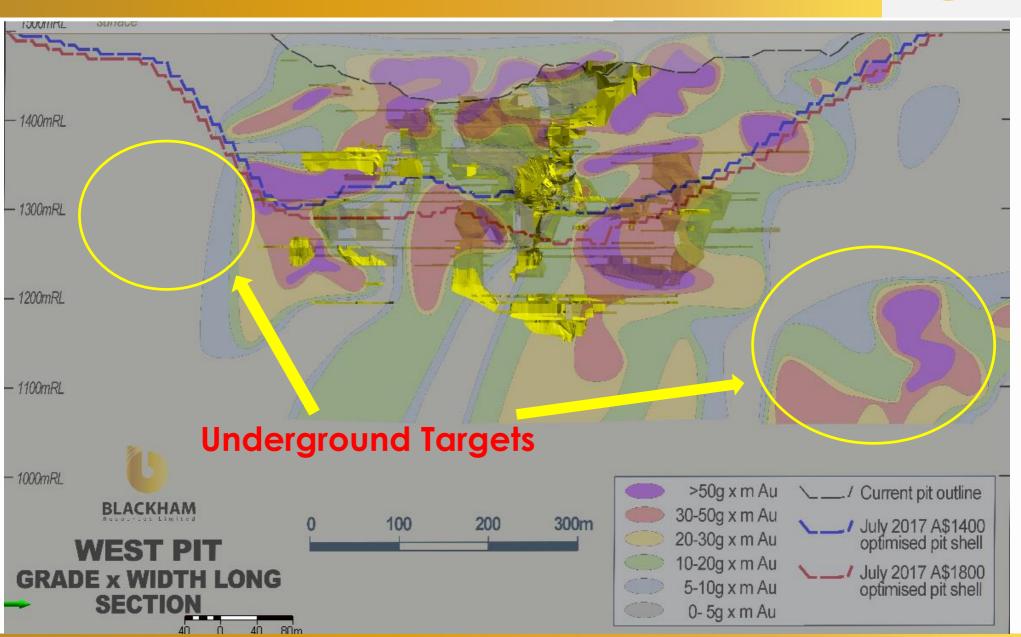
#### East West underground opportunity



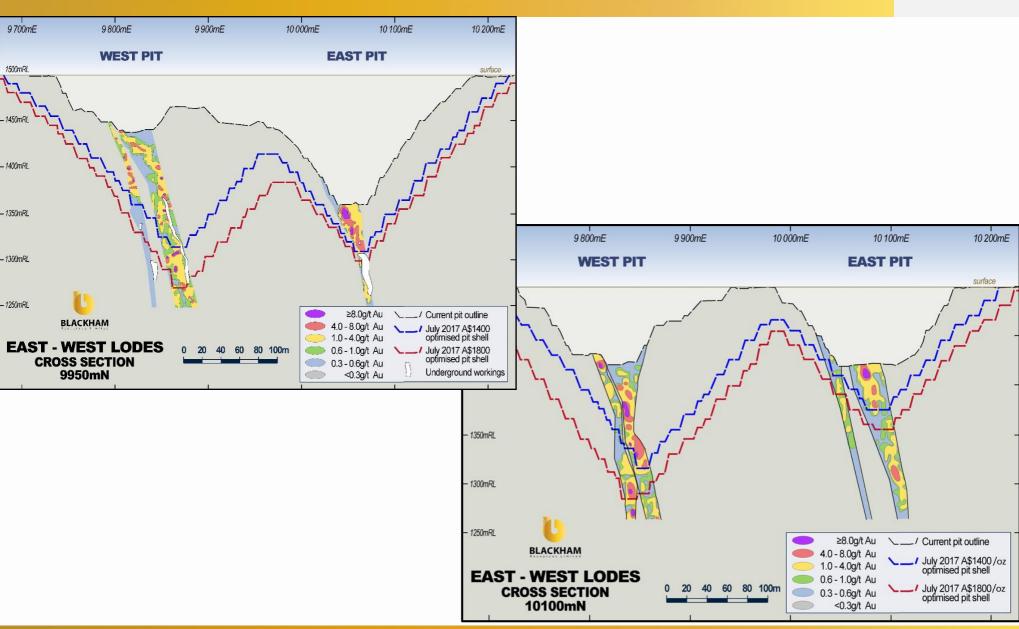
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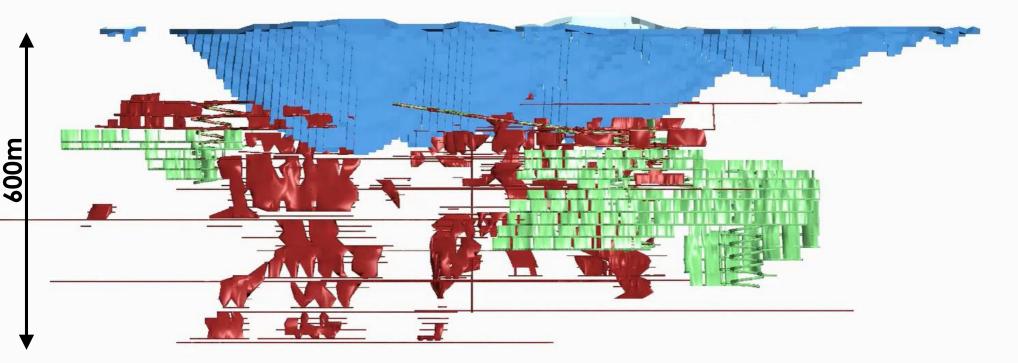
### East-West pit growing



#### East West Underground Mine Plan



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



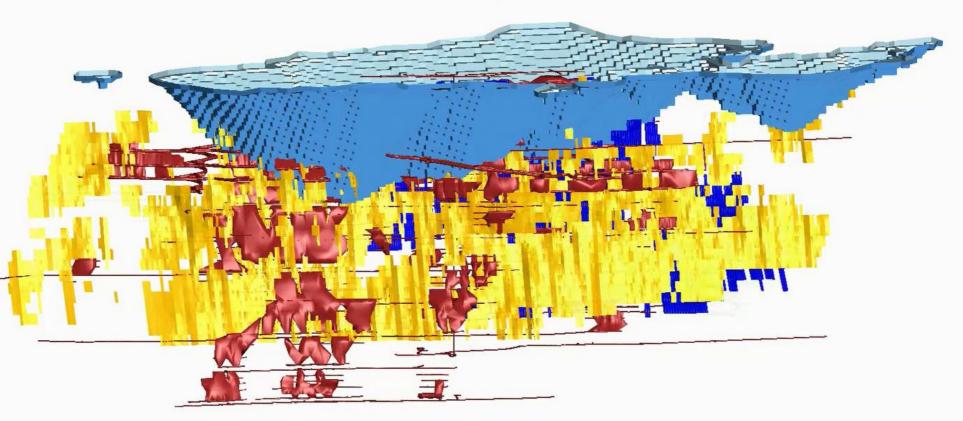
Extensive historical development to 600m depth

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

### East West Underground Opportunity

0

\$1800 Pit Optimisation



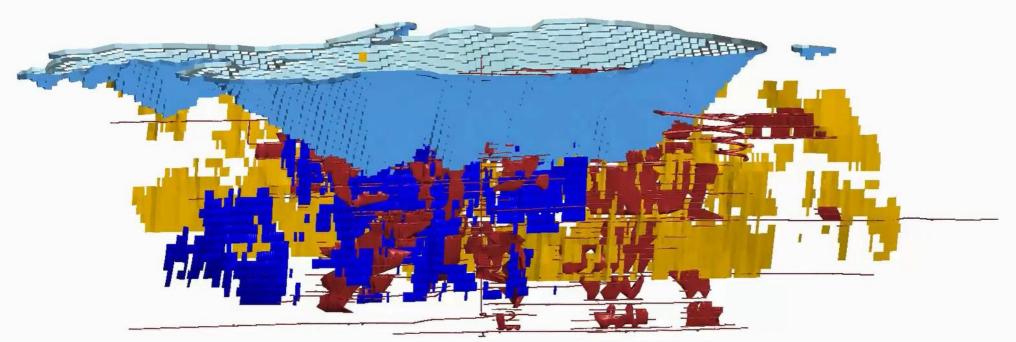
Blue: West Lode UG 3.0g/t Optimised Shapes Underground bulk mining assessments to be completed

Orange: East Lode UG 3.0g/t Optimised Shapes

#### East West Underground



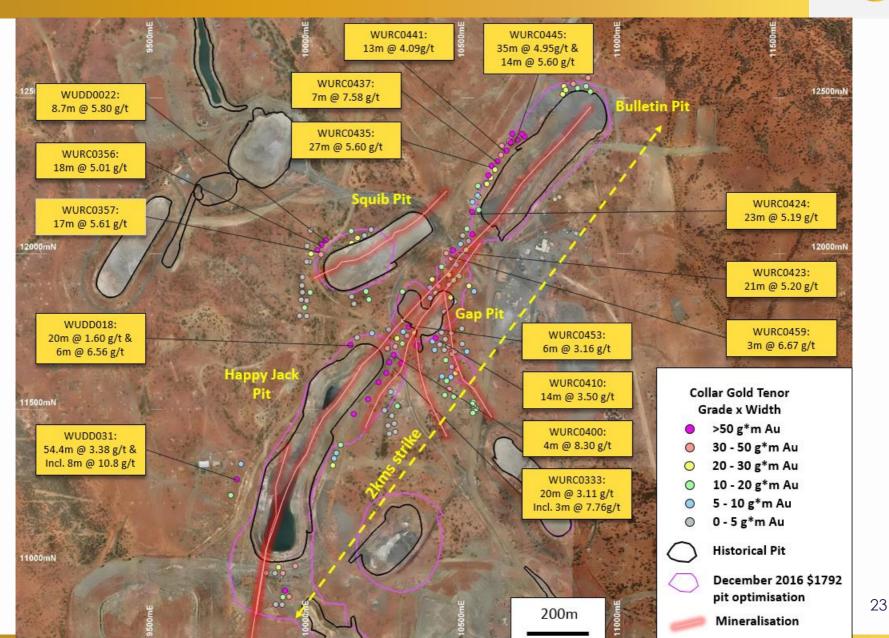
\$1800 Pit Optimisation



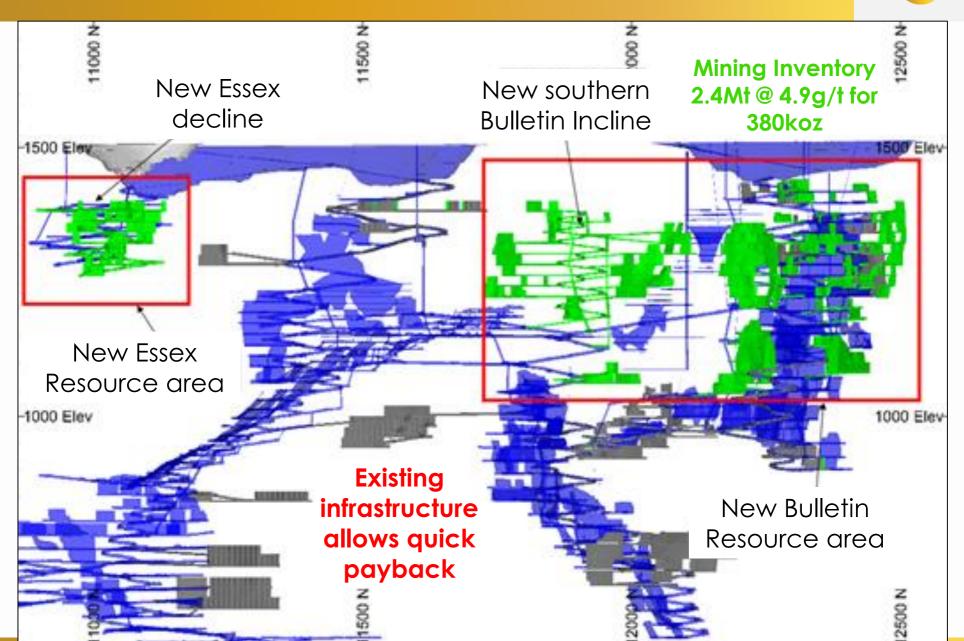
Blue: West Lode UG 3.0g/t Optimised Shapes Underground bulk mining assessments to be completed

Orange: East Lode UG 3.0g/t Optimised Shapes

#### Happy Jack to Bulletin – Resource this quarter

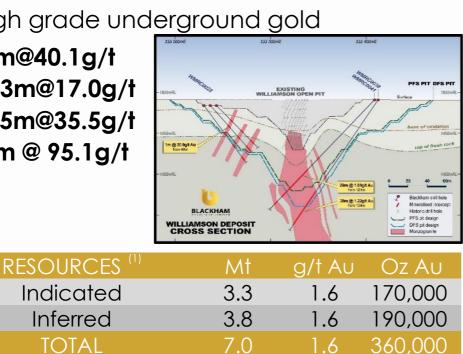


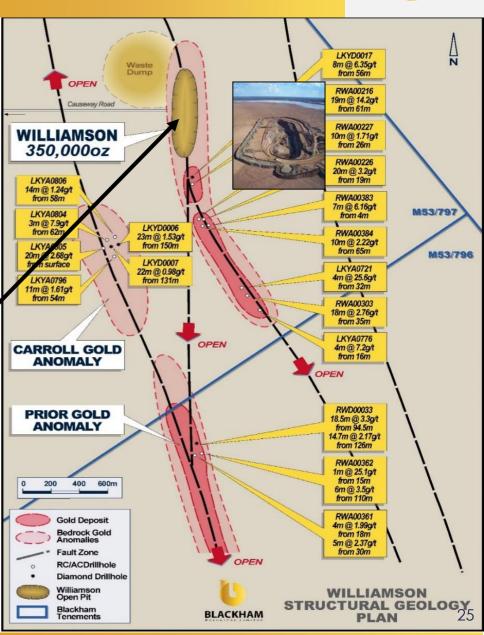
#### Happy Jack to Bulletin UG - 380koz @ 4.9g/t



### Lake Way – large mineralised system with blue sky

- 19km south along strike from Wiluna
- Large tonnage potential
- Historically Willamson produced 663kt@2.0g/t for 42,000Au
- Free milling 95% DFS recoveries
- Main lode up to 40m wide
- High grade underground gold 3m@40.1g/t 4.3m@17.0g/t 3.5m@35.5g/t 1m @ 30.9git Au from 49m 2m @ 95.1g/t



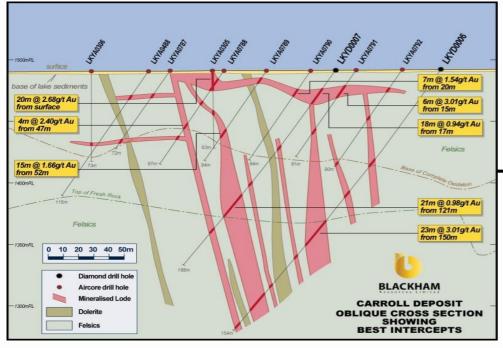


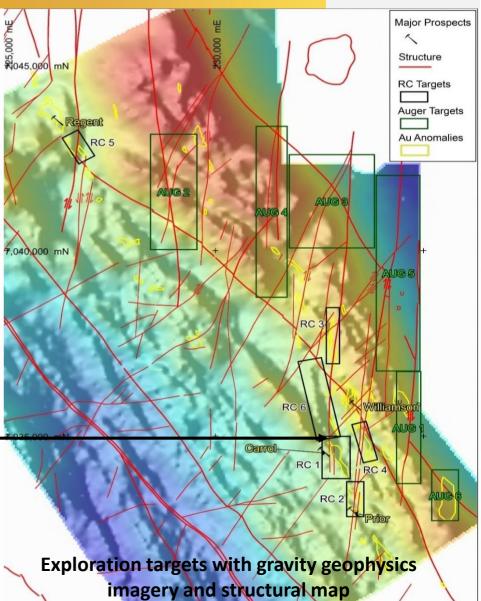
1) Refer to ASX release dated 13<sup>th</sup> December 2016

## Lake Way large tonnage potential



- 2.5kms of strike with continuous mineralisation
- Potential large tonnage, near surface
- SAM's surveys defined structure.
  Existing auger & air core. Gravity and seismic surveys competed
- Very limited drilling into primary mineralisation





### **Blackham's Matilda/Wiluna Vision**

- Gold production growing and costs decreasing each quarter
- + 3 years worth of oxide reserves
- Large scale gold systems with 6.2Moz resource and long mine life likely
- Very few Australian gold operations produce +200,000ozpa with long mine lives







#### Matilda/Wiluna Gold Resources grow 25% for Qtr



Matilda Gold Project Resource Summary												
OPEN PIT RESOURCES												
	Measured			Indicated			Inferred			Total 100%		
Mining Centre	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>				10.4	2.7	920	2.5	3.1	245	12.9	2.8	1,165
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	21	2.2	1,507	14	1.9	846	36	2.1	2,429
			UNE	DERGROU	ND RESOU	RCES						
		Measured		Indicated		Inferred		Total 100%				
Mining Centre	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	0.1	4.2	8	0.2	7.1	46	0.6	3.8	75	0.9	4.5	129
Wiluna				8.7	5.2	1470	14.3	4.5	2050	23	4.8	3,520
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	5.3	1,526	16	4.4	2,195	25	4.7	3,729
Grand Total	1.7	1.5	84	30	3.1	3,033	29	3.2	3,041	61	3.1	6,158

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 3<sup>rd</sup> August 2017 for further information

### Appendix: Gold Reserves



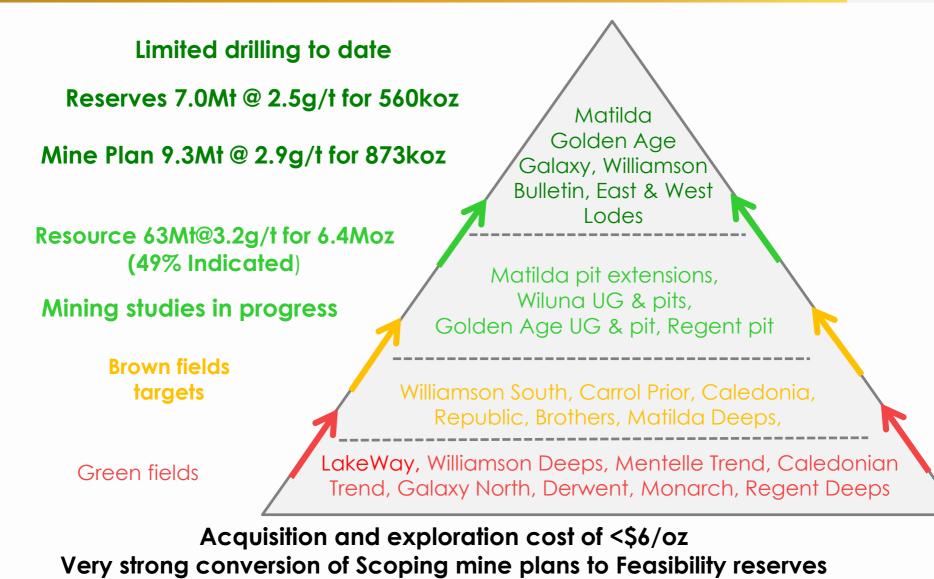
Mine	Category	Tonnes	Mined g/t	Reserve Oz	
Matilda Mine	Proven	195,000	1.9	12,000	
Matilda Mine	Probable	3,297,000	1.8	192,000	
Golden Age	Probable	112,000	6.0	21,000	
Galaxy	Probable	338,000	2.8	30,000	
Williamson	Probable	1,517,000	1.4	69,000	
Bulletin Sulphides	Probable	938,000	4.7	142,000	
East-West Sulphides	Probable	516,000	5.2	87,000	
Stockpiles	Probable	124,000	1.7	7,000	
<b>Total Proven Reserves</b>		195,000	1.9	12,000	
<b>Total Probable Reserves</b>		6,842,000	2.5	548,000	
Total Reserves		7,037,000	2.5	560,000	

#### Reserves currently being updated for increases in underground and open pit resources over the last year

Mineral Reserve estimates are not precise calculations. The figures in the Table above are rounded to two significant figures to reflect the relative uncertainty of the estimate. See 17<sup>th</sup> June 2016 ASX announcement.

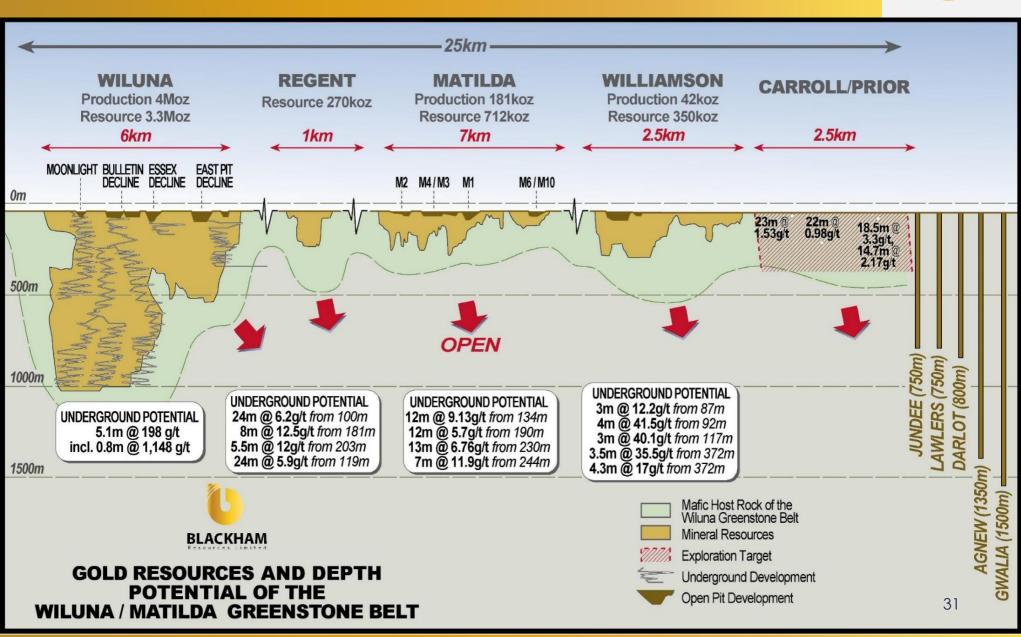
### Growing the Mine Life from Large Gold Systems



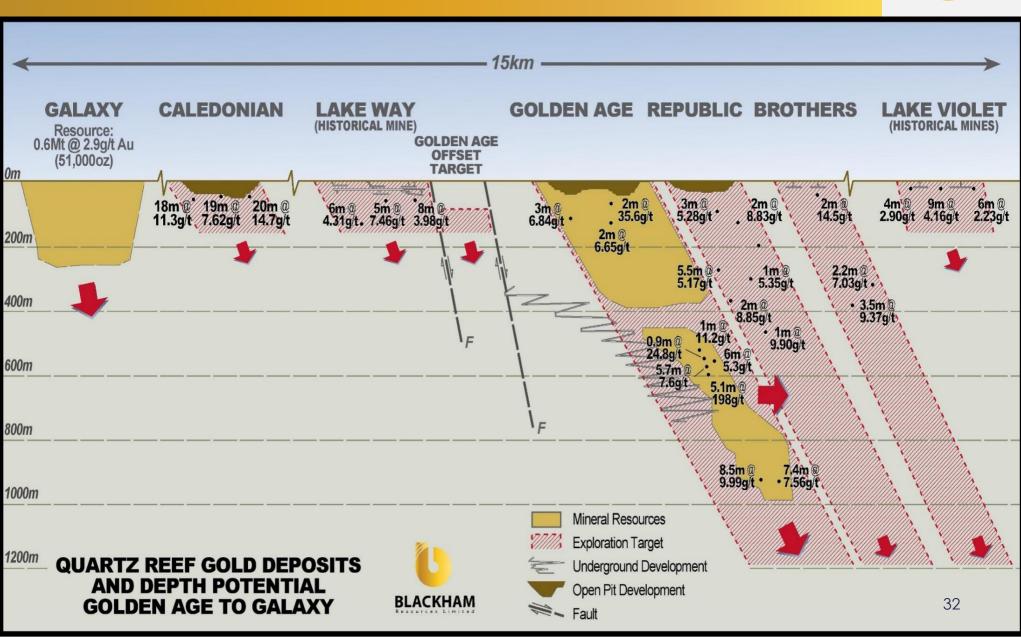


Continuing to extend the mine plan at low costs

### Just Scratching the Surface



# Mining One Reef with 15km of Reef Prospects



## Mining Plan the Key to Unlocking Value

#### Wiluna Gold Mine Production History 2005-2007 Sulphide/oxide 1994-1996 Sulphide / Oxide Cash Milled APEX Produced Au Oz Produced Au Oz Ratio: Cost Tns Acquisition July ratio: 85/15 1997-2004: 100% Sulphide Production \$/oz 80/20 2007 1,000,000 2,000 900,000 1.800 800,000 1,600 137koz 700,000 1,400 600,000 1,200 3 vr Av Prod: 103koz 100koz 500,000 1,000 85% 81koz 8.1g/t 83% 400,000 800 81% Average Recovery 83% 300,000 600 49koz 37koz 200,000 400 Declining Grade 100,000 200 n 2001 2010 1994 1995 1996 1991 1998 1999 2000 2001 2002 2003 2004 2005 2006 2008 2009 2011 2012 2013 33 Gold Produced (koz) Milling (tns) + Grade (g/t) - Revovery (%) - Cash Cost (\$A/oz) ···· Milled Tns Trendline

### 4.3Moz Wiluna production & lot more to come



- ► Long History of Production +4.3Moz
- Historical Oxide, Quartz, Tailings ~1Moz
- BIOX Fitted to Existing Oxide Plant (Comm May 1993)
- 2007: Project broken up Wiluna mine assets sold to Apex for \$29.5M
- Apex spends \$71M on exploration expenditure
- Nov 2011 Blackham acquires Matilda Gold Project for \$1.4M
- Mar 2014 Blackham acquires Wiluna plant and mine for \$2.1M upfront and \$2.6M in deferred consideration

