



**BLACKHAM**  
Resources Limited



**Australian gold producer with  
exceptional growth opportunity**

Jan 2017

**ASX : BLK**



## Gold producer with exceptional growth opportunity

- Matilda Gold production commenced in Oct 2016
- Expect production of 60-70koz for FY'17
- Market cap ~ A\$197M with strong liquidity ~ A\$35/resource oz
- Expansion study well advanced aiming to grow production beyond 200kozpa
- Resource 6.4Moz @ 3.2g/t, 4 large scaleable gold systems & over 1,000km<sup>2</sup> landholding<sup>(1)</sup>
- **Few Australian gold projects capable of +200koz and long mine life**

# Corporate Information



## CAPITAL STRUCTURE

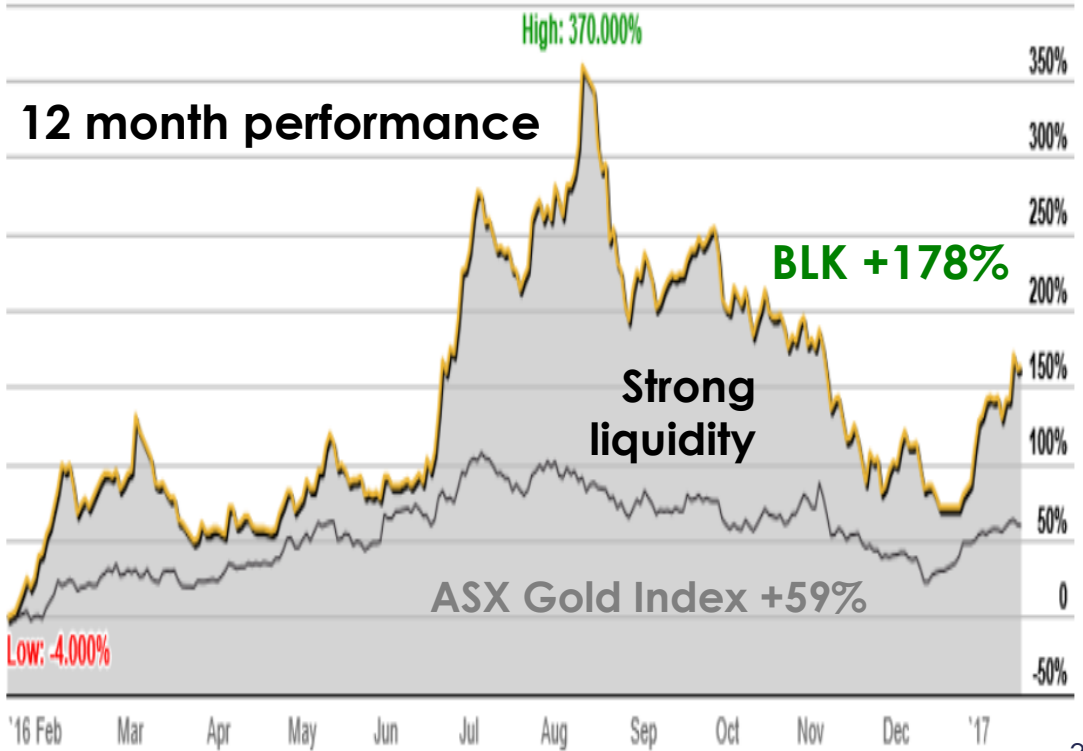
Market cap. @ A\$0.69	A\$197M
Shares on issue	286M
Strong Liquidity - 1 month volume	37M
Options @ avg \$0.26/share	33M
Cash @ 31 Dec 2016	+A\$10.7M
Debt @ 31 Dec 2016	-A\$38M

## SHAREHOLDER ANALYSIS

Hunter Hall	13%
Institutional – Australia	13%
Institutional - Europe & UK	11%
Institutional - Nth America	7%
Institutional – Asia	4%
Retail	52%
Directors and management	5%
Top 20	60%

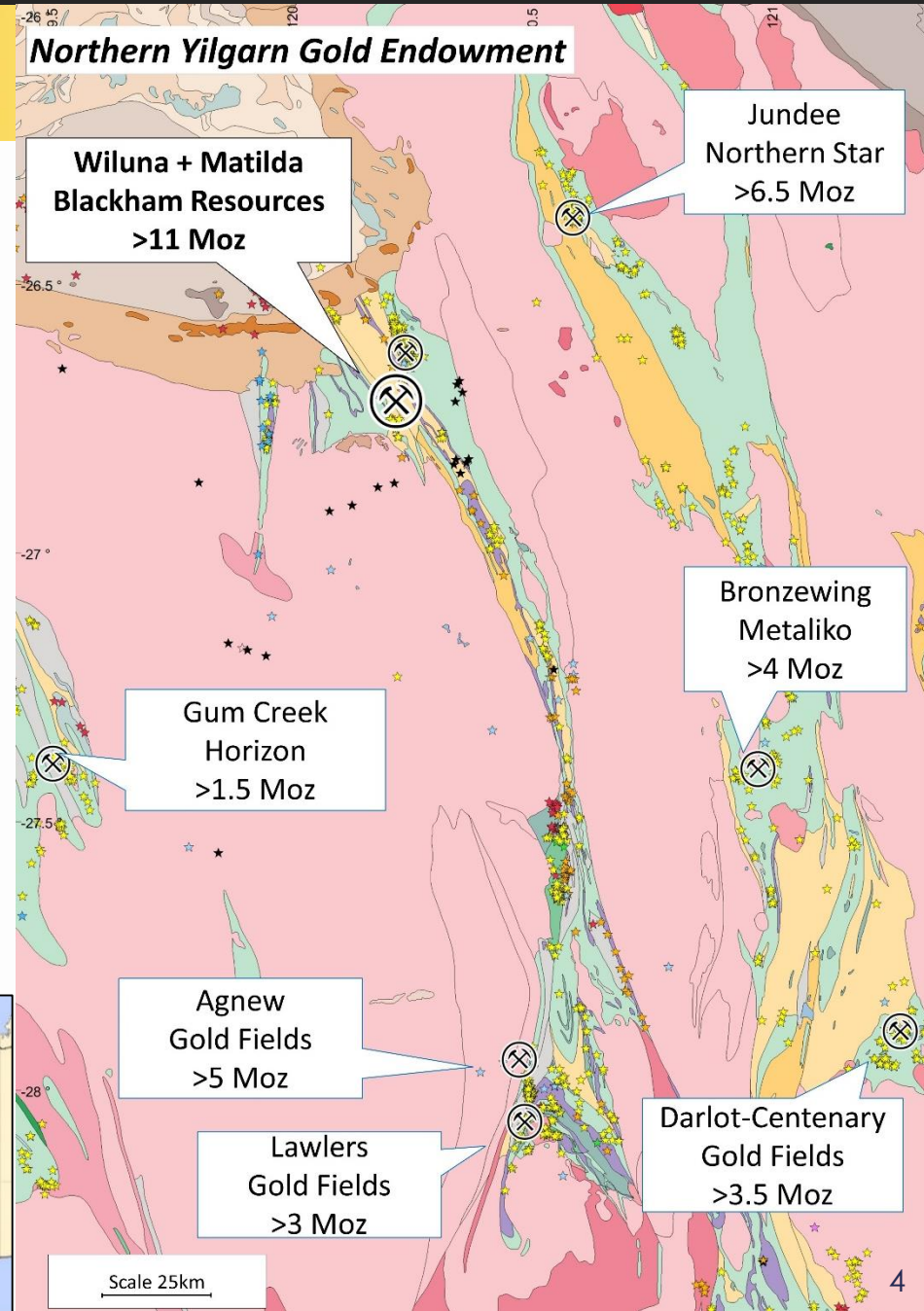
## BOARD OF DIRECTORS

Bryan Dixon	Managing Director	Mining Develop't & Corporate
Alan Thom	Director – COO	Mining Develop't & Operation
Milan Jerkovic	Non-Exec Chairman	Mining Develop't & Operation
Greg Miles	Non-Exec Director	Geology
Peter Rozenauers	Non-Exec Director	Mining Finance & Corporate



# Australia's best 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 for new discoveries and economic development of existing resources



# Matilda Progress to Date



- **Matilda Progress to Date**

- Mar 2014, acquired gold plant and mine and consolidated the Wiluna Goldfield
- Dec 2014, scoping study - Mineral Inventory **5.0Mt @ 2.8g/t for 454,000oz Au**
- June 2015, BLK completed \$38.5M deal with Orion Mine Finance
- DFS published in Feb 2016 and improved to June 2016
  - Mine Plan **9.3Mt @ 2.9g/t for 873,000oz Au** <sup>(2)</sup>
  - Reserves **7.0Mt @ 2.5g/t for 560,000oz Au** <sup>(2)</sup>
  - Very strong conversion of Mine Plan to Reserves to date
- Resource 6.4Moz @ 3.2g/t(49% indicated) with acquisition and exploration cost of <\$6/oz <sup>(1)</sup>
- June 2016 mining approvals & July 2016 Mining commenced
- **Oct 2016 first gold production**
- **Gold production ~ 16 months** after receiving the Orion funding deal
- Ramped up to 4,900oz production in month of Dec 2016.

- **Matilda Operating Plan**

- Nameplate production this quarter
- Continue to improve and optimise operations and mine plan
- Further reserve upgrades expected with **>5Moz resource outside the mine plan**
- Finalise expansion plans to fully utilise vast and diversified resource base

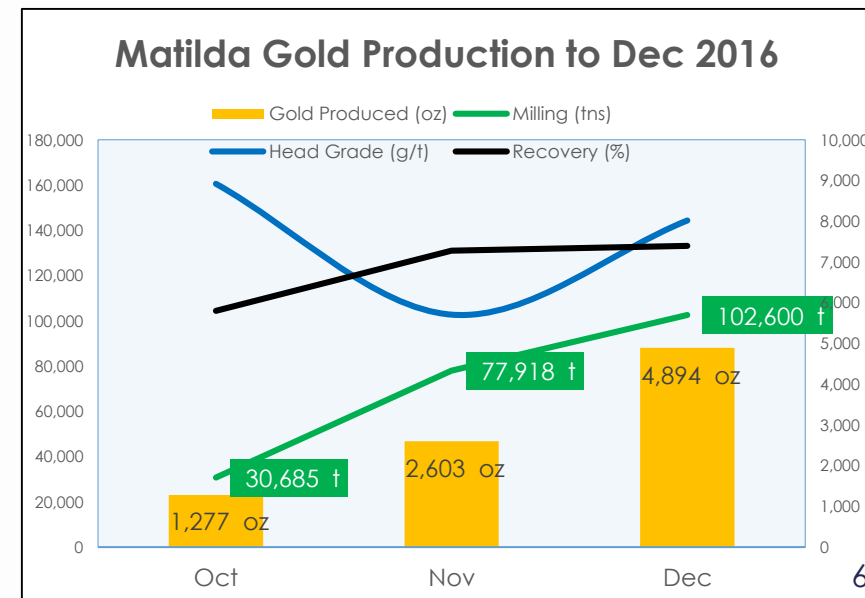
1) Refer to ASX release dated 13<sup>th</sup> December 2016

2) Refer to ASX release dated 17<sup>th</sup> June 2016

# Ramp Up and FY 2017 Guidance

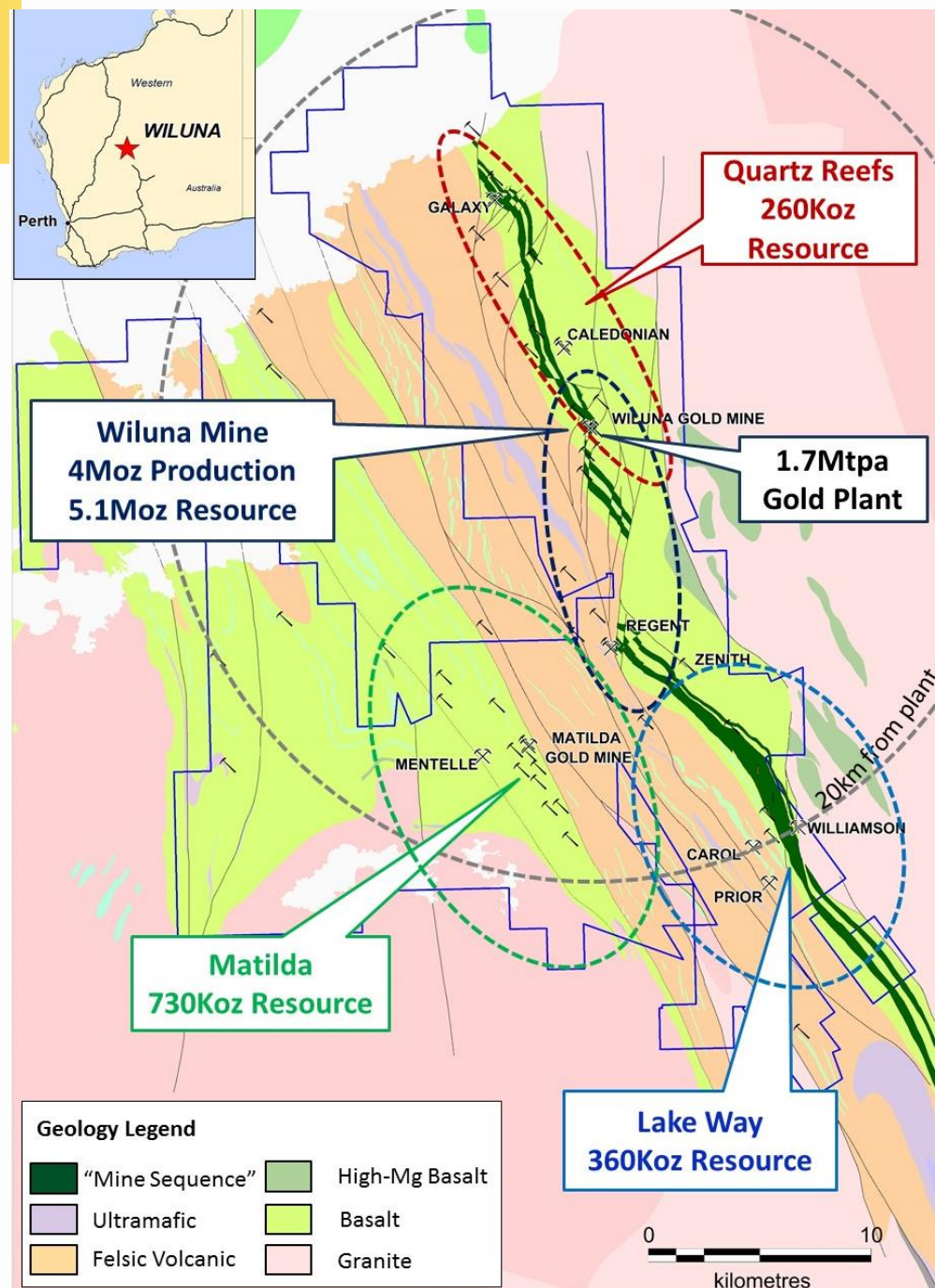


- Crushing circuit availability slowed ramp up but now operating at above 1.7Mtpa feasibility design
- Mills have run at up to 250tph (2.0Mtpa) currently de-bottlenecking to achieve steady state beyond 210tph (1.7Mtpa)
- Grade profile ramping up –
  - Into higher grade in M10 & M3 pits
  - Golden Age development ore averaging 4.9g/t
- Plant recovery 92% - averaged during Nov& Dec'16
- Leach tail 0.11g/t avg during Nov&Dec'16
- **FY2017 production guidance**
  - **Produced 4,900oz in month of Dec 17**
  - **Production building by the month**
  - **Gold production – 60-70koz for 8.5 mths**
  - **C1 A\$840/oz and ASIC costs A\$1,140/oz**



# Prospectivity an Embarrassment of Riches

- Resource **63Mt @ 3.2 g/t for 6.4Moz Au** <sup>(1)</sup>
  - 49% indicated resource level
- Consolidated Wiluna goldfield with all deposits < 20km of plant
- 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
- Averaged gold production of 101,000ozpa over 27 years of operations



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



## **Blackham Strategy**

- Strengthening and lengthening reserves profile
- Game changing discoveries & opportunistic bolt on acquisitions

## **Matilda - Stage 1 – 100,000ozpa**

- Gold production started from oxides & high grade free milling reefs
- Soft free milling ore will be used build balance sheet
- Aggressive exploration on high grade reefs & base load oxide ore
- Rapidly growing long term mine plan

## **Matilda & Wiluna - Stage 2 +200,000ozpa**

- Additional ore feed from Wiluna sulphides – 5.1Moz @ 3.9g/t
- Additional milling capacity to supply the existing sulphide circuit
- Wiluna open pit resource success underpins expansion plan
- Open pit mining and processing studies in progress
- **Expansion study aimed at expanding production to +200kozpa**



# Matilda Mine – Base Load Ore and Growing

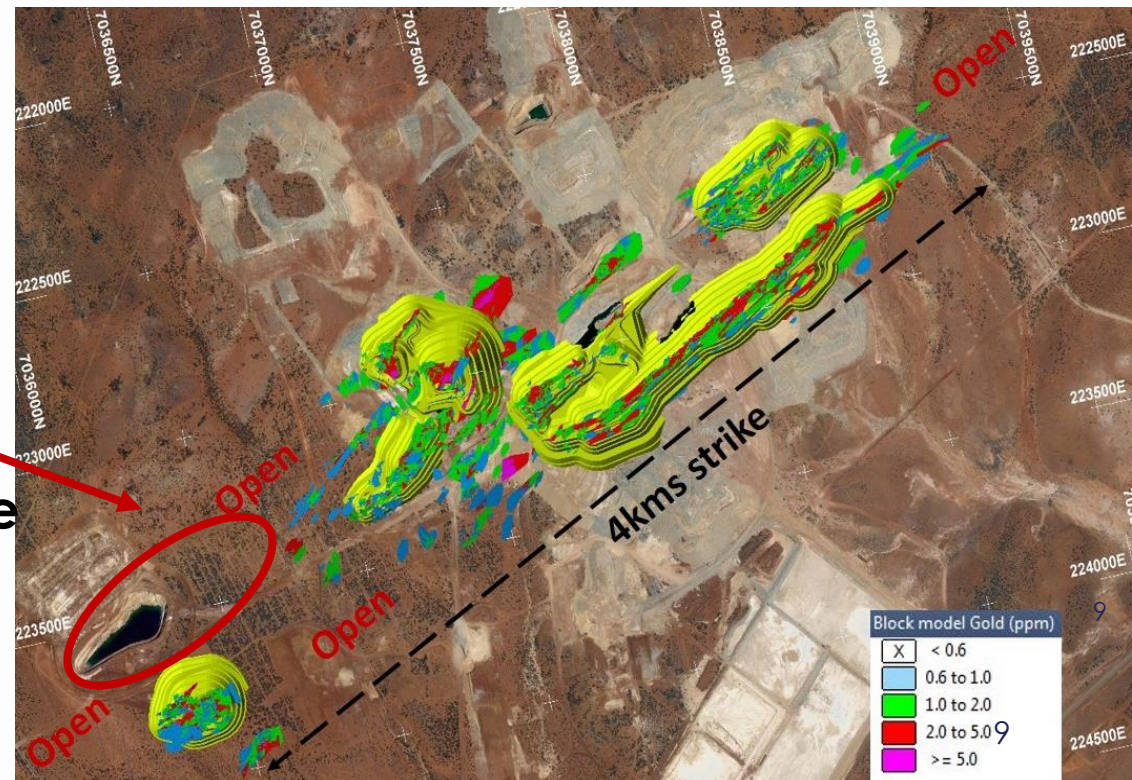


- 10kms stacked, repeating gold lodes
- Soft, deeply weathered oxide ore
- Production (1987-1993):
  - 2.2 Mt@ 2.6g/t = 181,000oz au
- Mine Plan continues to grow
  - 3.7Mt @ 1.8g/t for 213,000oz Au<sup>1)</sup>
  - Gravity & leach recoveries 93%
  - Soft rock & ore with significant free dig

Resources	Mt	Grade	Koz
Measured	0.2	2.0	13
Indicated	7.7	1.8	445
Inferred	4.9	1.7	270
<b>Total</b>	<b>12.8</b>	<b>1.8</b>	<b>728</b>

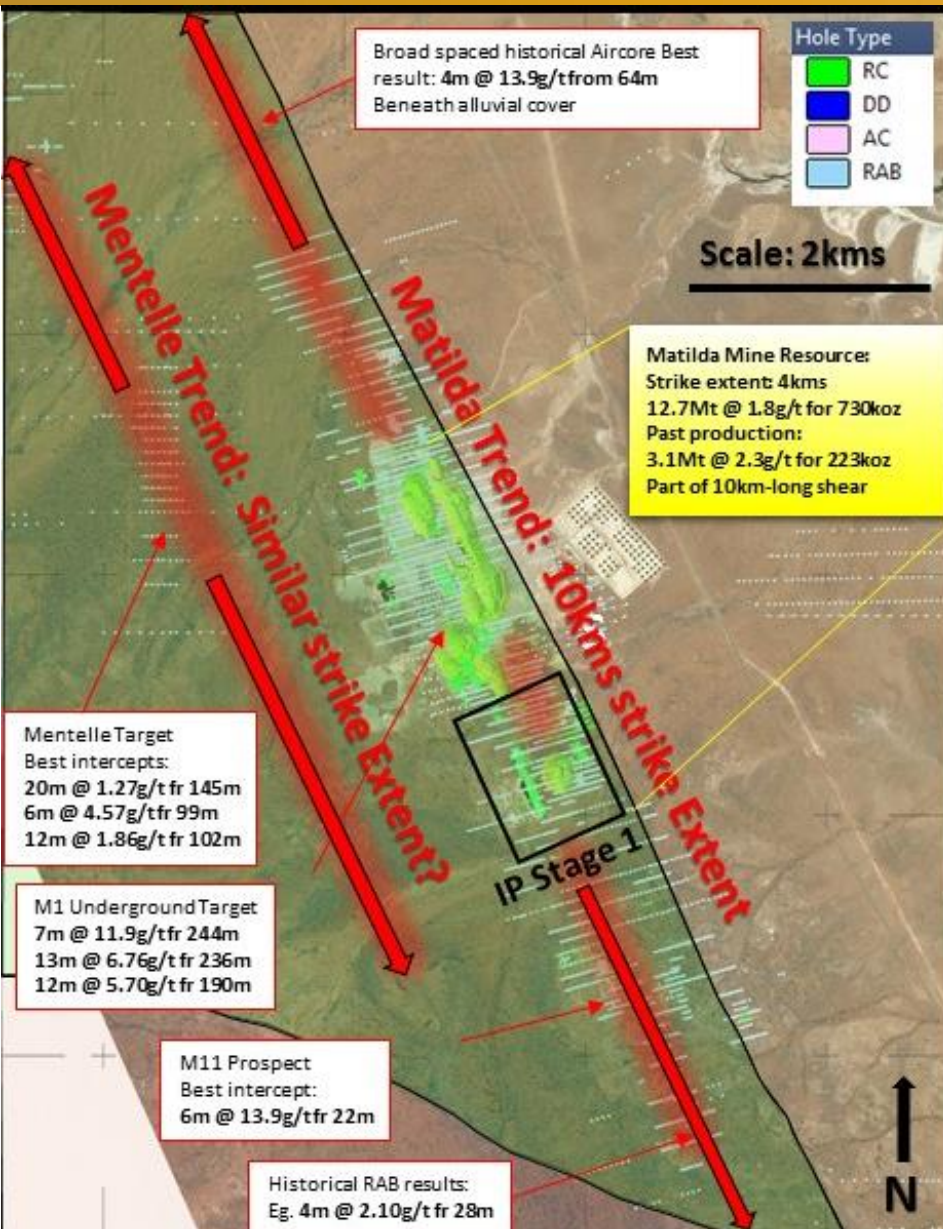
- **Designing new M6 pit to the south following recent drill success**

**Growing source of large tonnage base load ore**



1) Refer to ASX release dated 17<sup>th</sup> June 2016

# Matilda Regional Stacking & Repeating Lodes

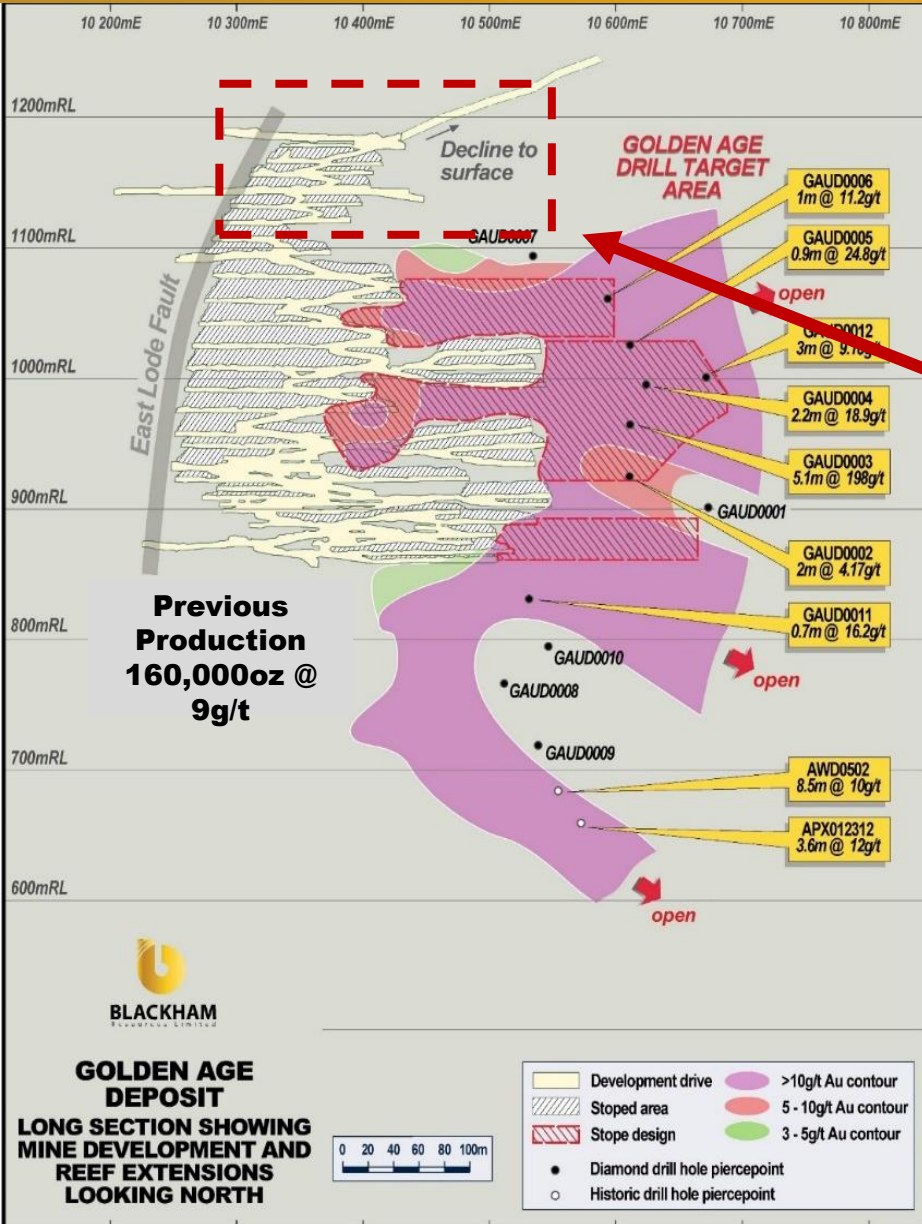


- **>10kms of prospective shear zone**
- Historical drilling identified mineralisation up to 3km from the mine area
- Ineffective historical RAB requiring RC follow up along strike and at depth
- **Alluvial cover to north & south an impediment to previous exploration**
- Mentelle Trend - prospective Matilda look-a-like shear?
- **Utilise gradient-array IP (GAIP) geophysical survey to detect Au + sulphides: characteristic of Matilda**
- *Large RAB program to test basement*
- **Targeting new Matilda-sized mine ~ 1Moz**

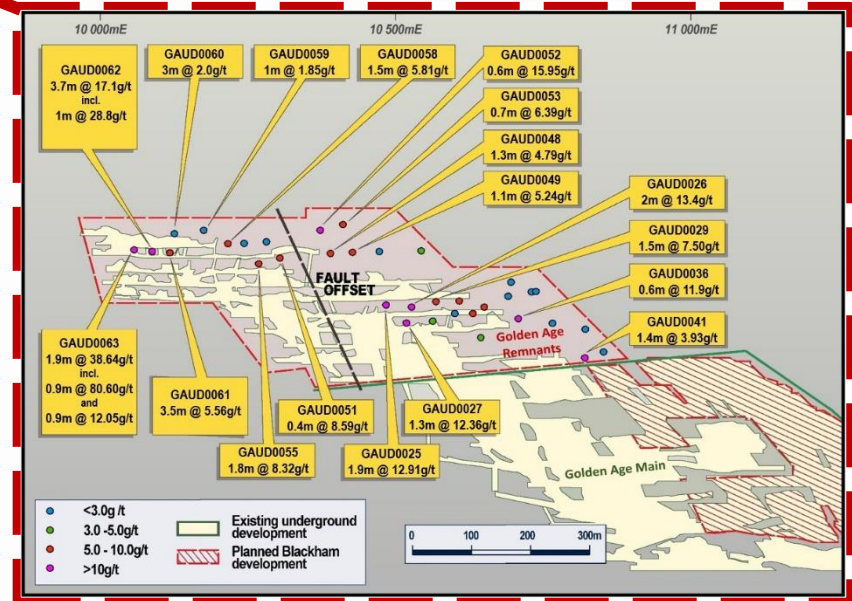
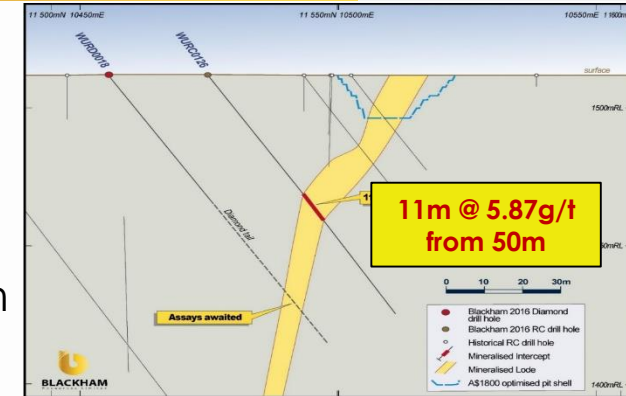
# Matilda M10 Mining and Haulage



# Golden Age – High Grade Quartz Reef

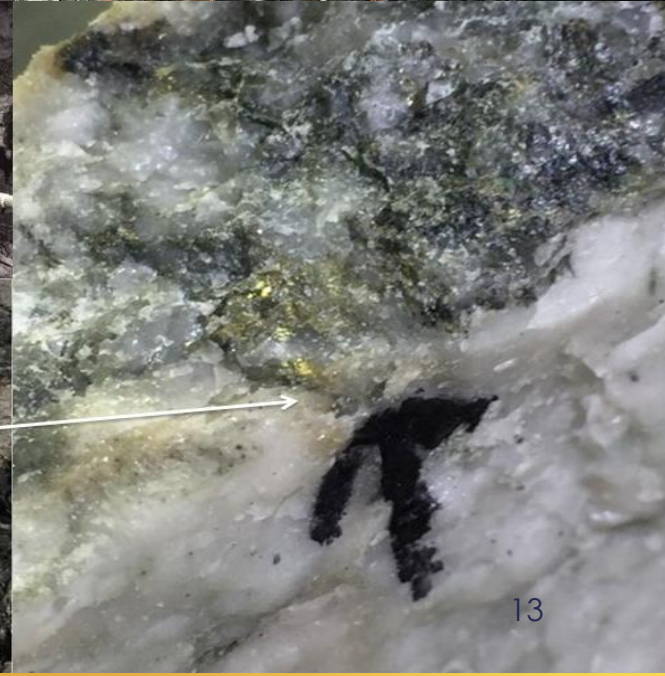


- Recent drilling confirms the open pit potential 11m @ 5.87g/t from 50m

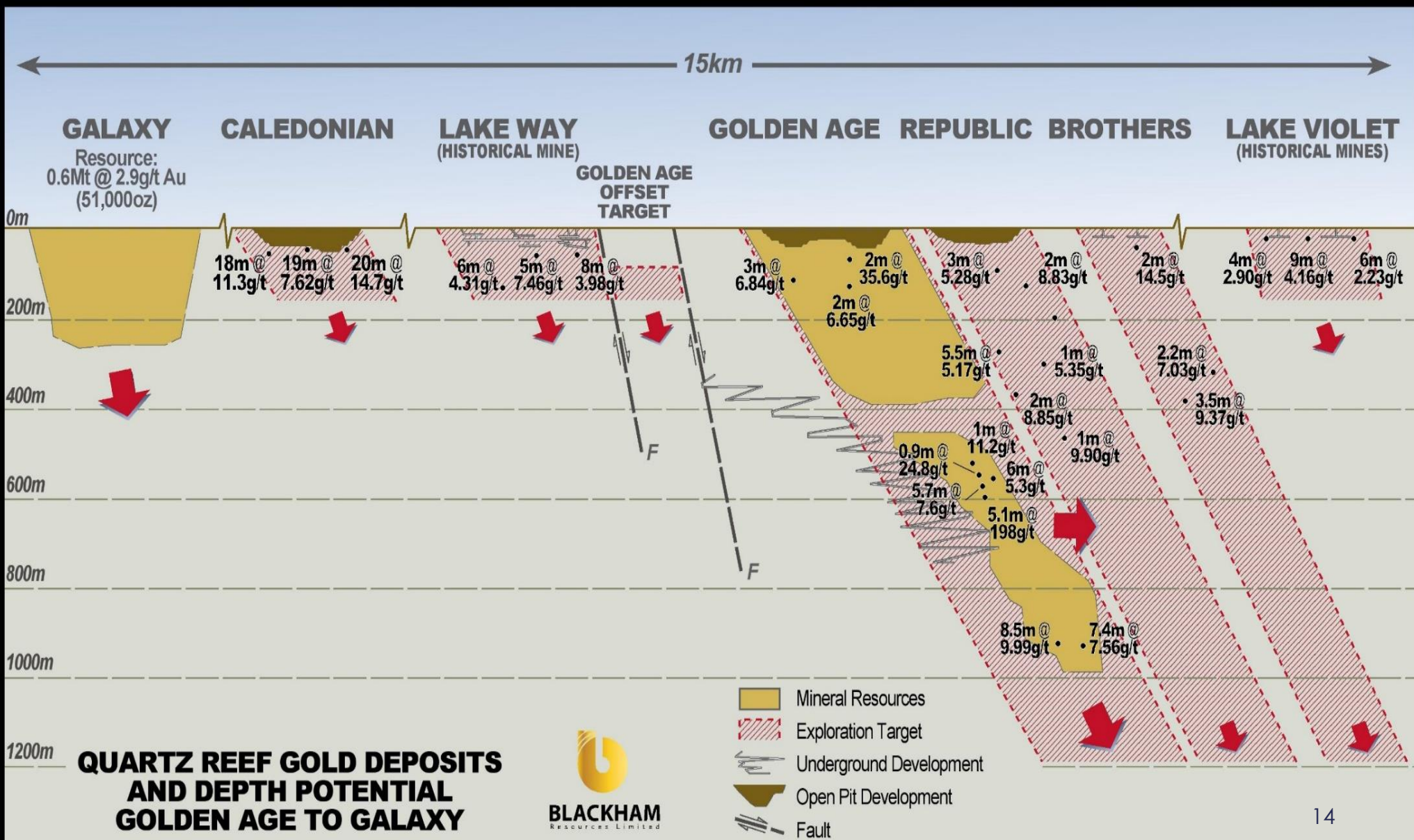


- UG produced 160,000oz Au @ 9.0g/t
- Middle Resource **290kt @ 9.0g/t** for 85,000oz
- UG mining development ore avg 4.9g/t

# Golden Age Underground Mining

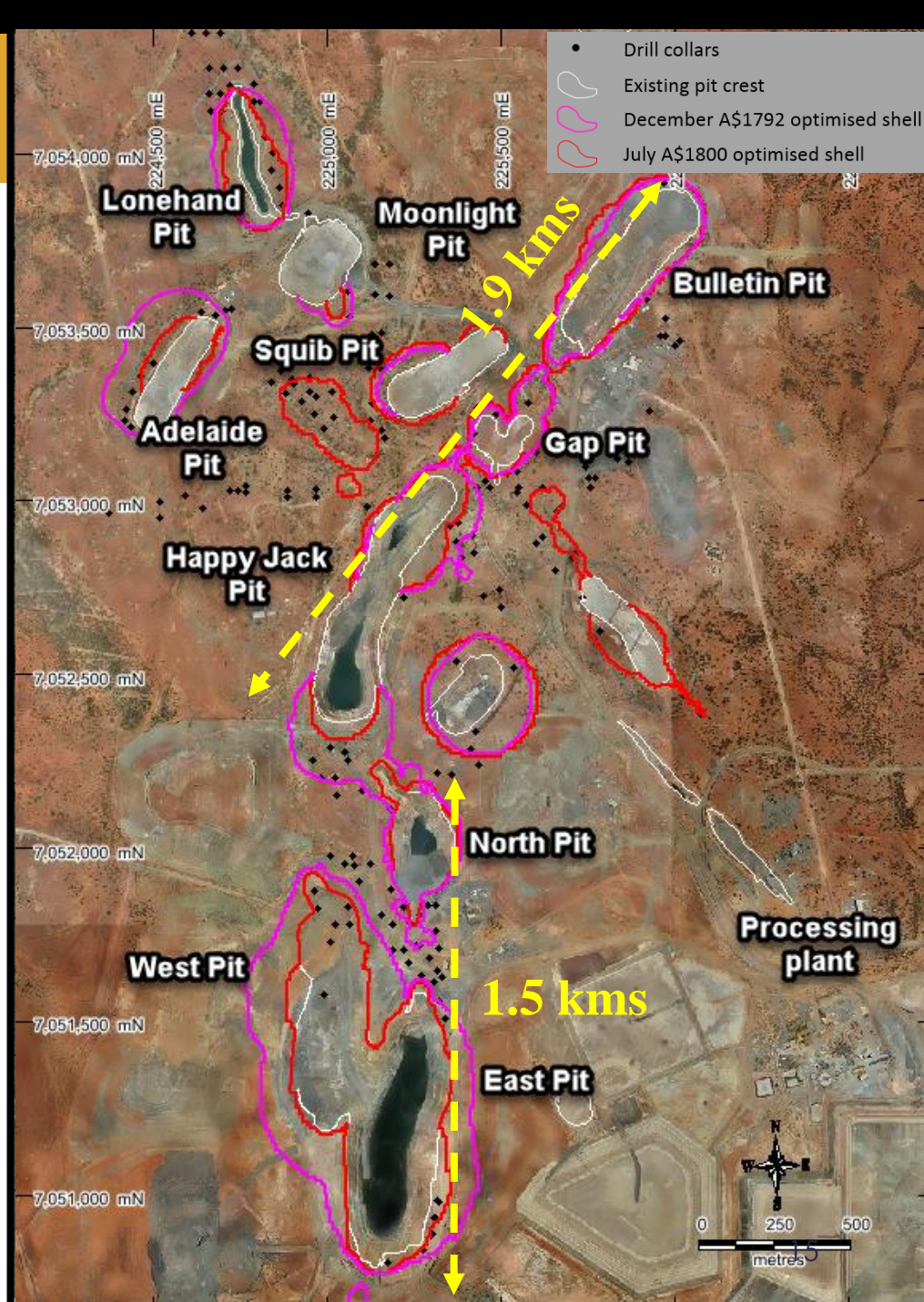


# Mining One Reef with 15km of Reef Prospects



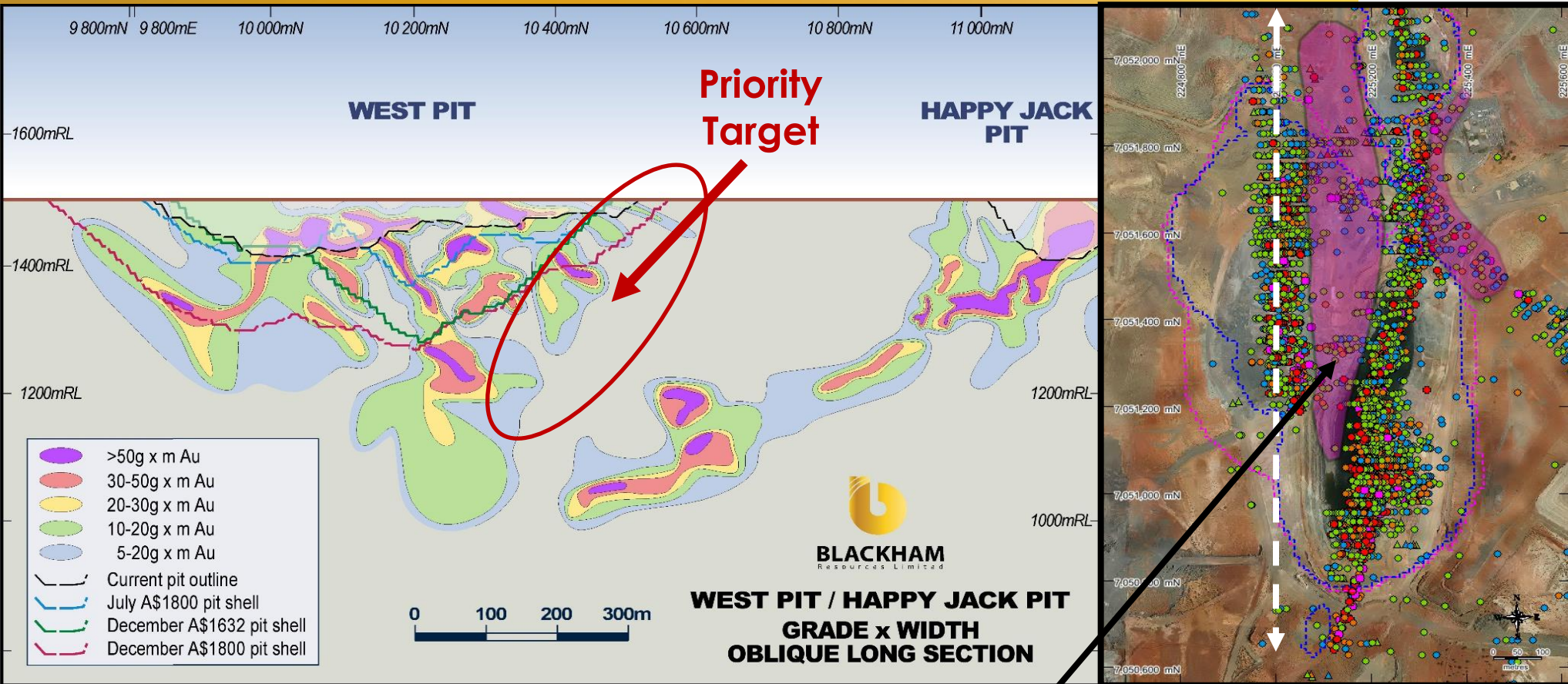
# Stage 2: Wiluna 5.1 Moz

- Total resources **41Mt @ 3.9g/t for 5.1Moz**<sup>(1)</sup> -
  - OP resources **16Mt @ 2.5g/t for 1.3Moz**
  - UG resources **24Mt @ 4.7g/t for 3.7Moz**
- Operating history gives good understanding of processing costs & recoveries
  - 83% average recoveries over 20 years
  - opportunities to improve floatation recoveries
- Mining plan is the key to unlocking the value
  - Substantial mine development - 5 declines
  - critical mass of reserves for each decline
  - One open pit and two declines operating gives flexible and sustainable mine plan
- Feasibility and development confirms sulphides are economic - **AISC A\$1,140/oz**
- **Estimating maiden Wiluna open pit reserves following successful maiden resources**



1) Refer to ASX release dated 13<sup>th</sup> December 2016 and 23 January 2017

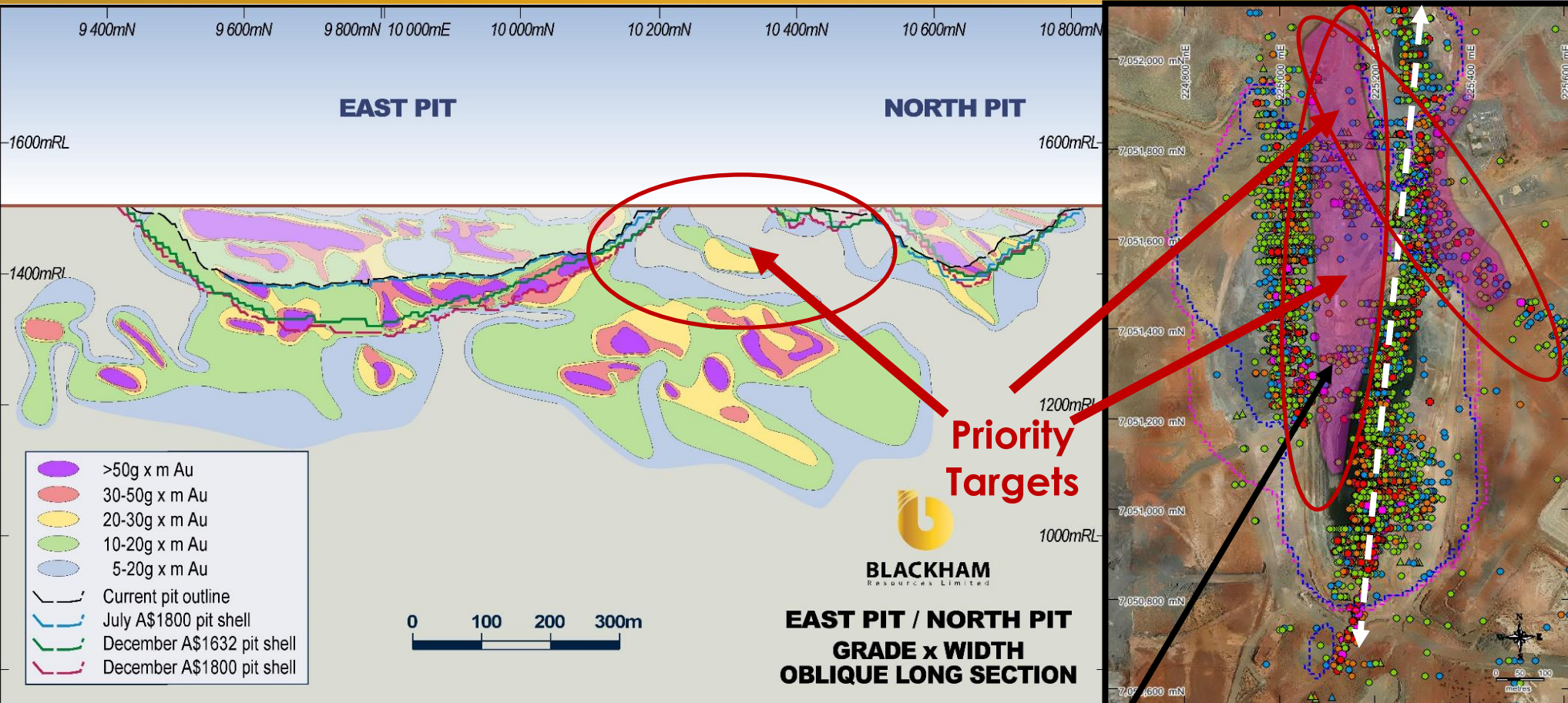
# East West Pit - large scale pit



- Pit optimising on 2.7g/t diluted grade
- Significant mineralisation in purple zones not modelled in resources – economics likely to improve with further drilling
- wide ore zone ideal for open pit mining

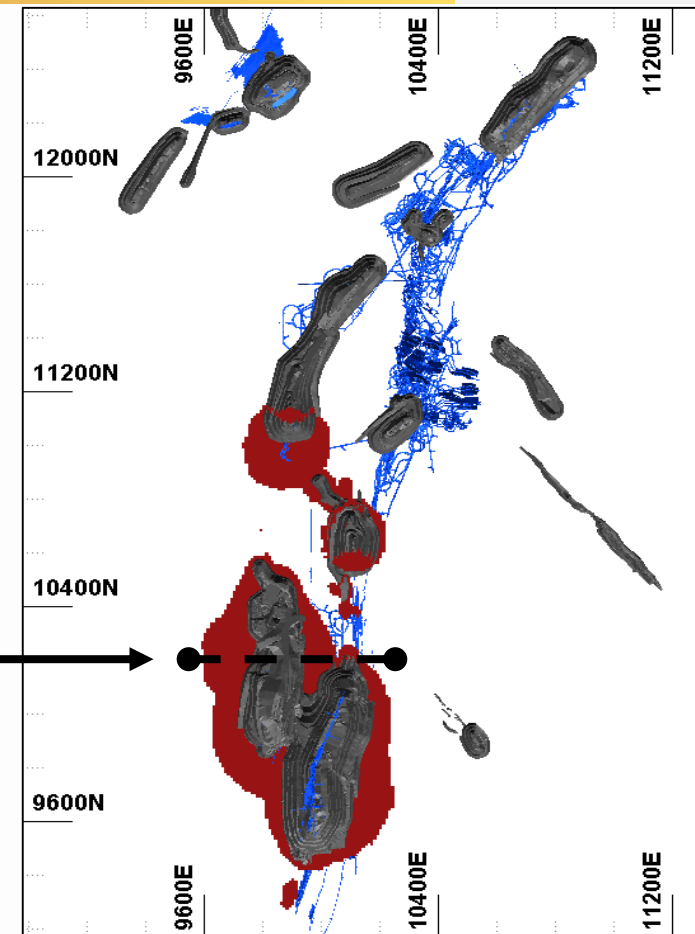
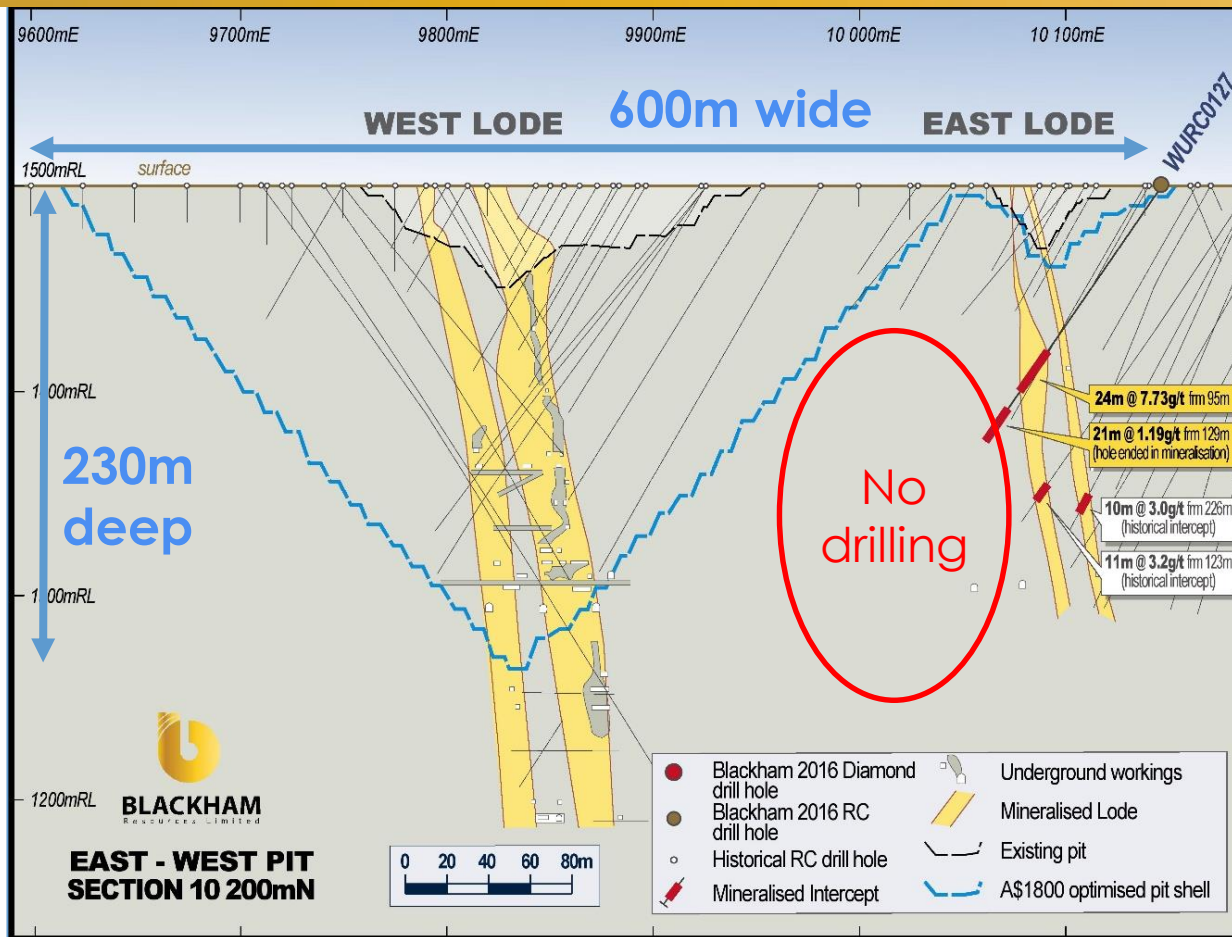


# East West Pit - priority drillout of targets



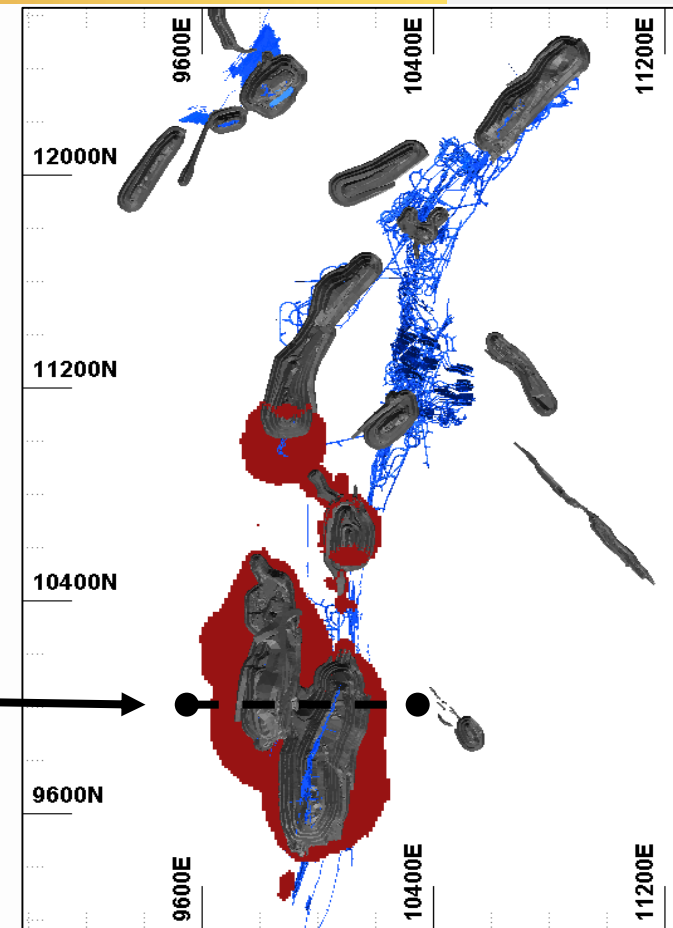
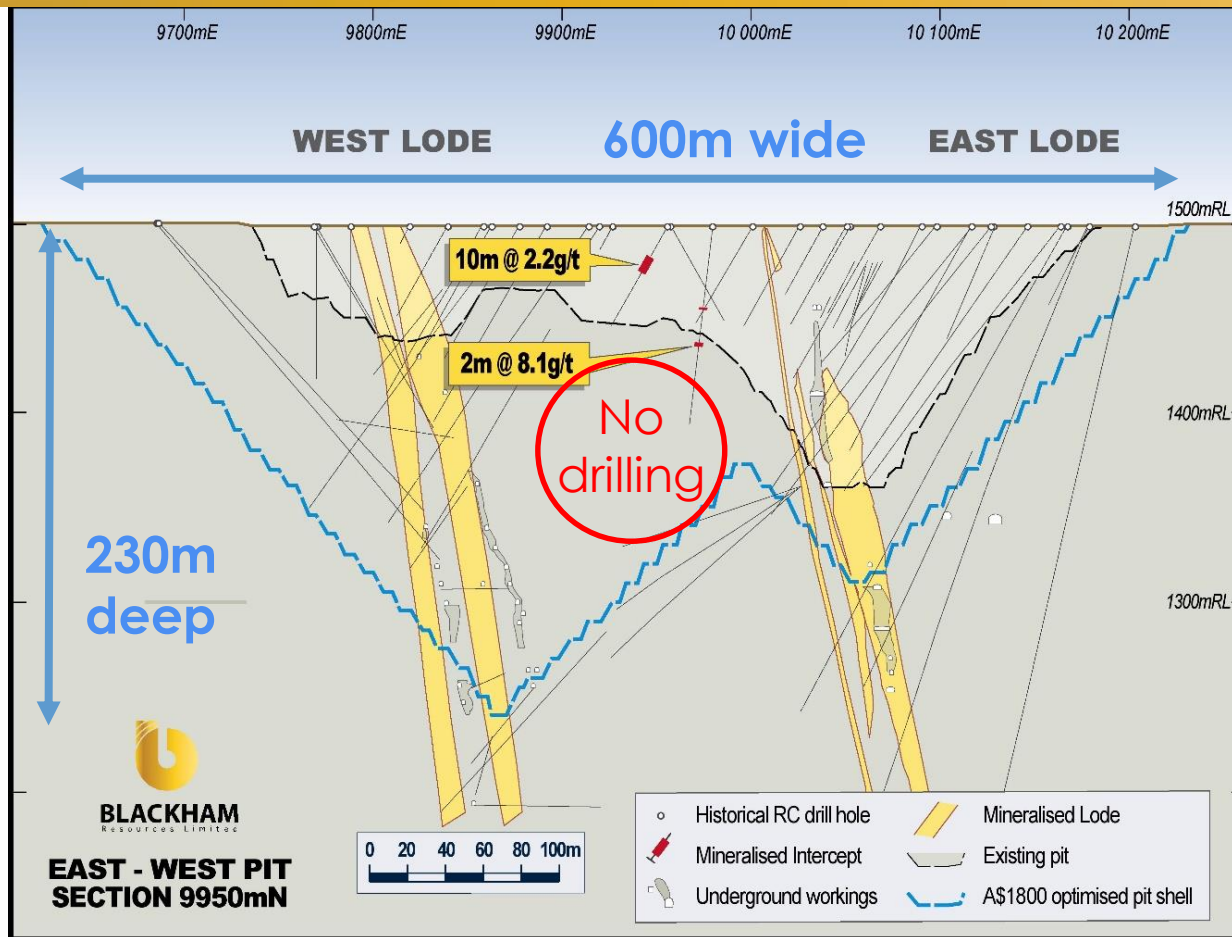
- Pit optimising on 2.7g/t diluted grade
- Significant mineralisation in purple zones not modelled in resources – economics likely to improve with further drilling
- Drilling priority targets could reduce strip ratio and result in a single large pit

# East-West pit cutback opportunity



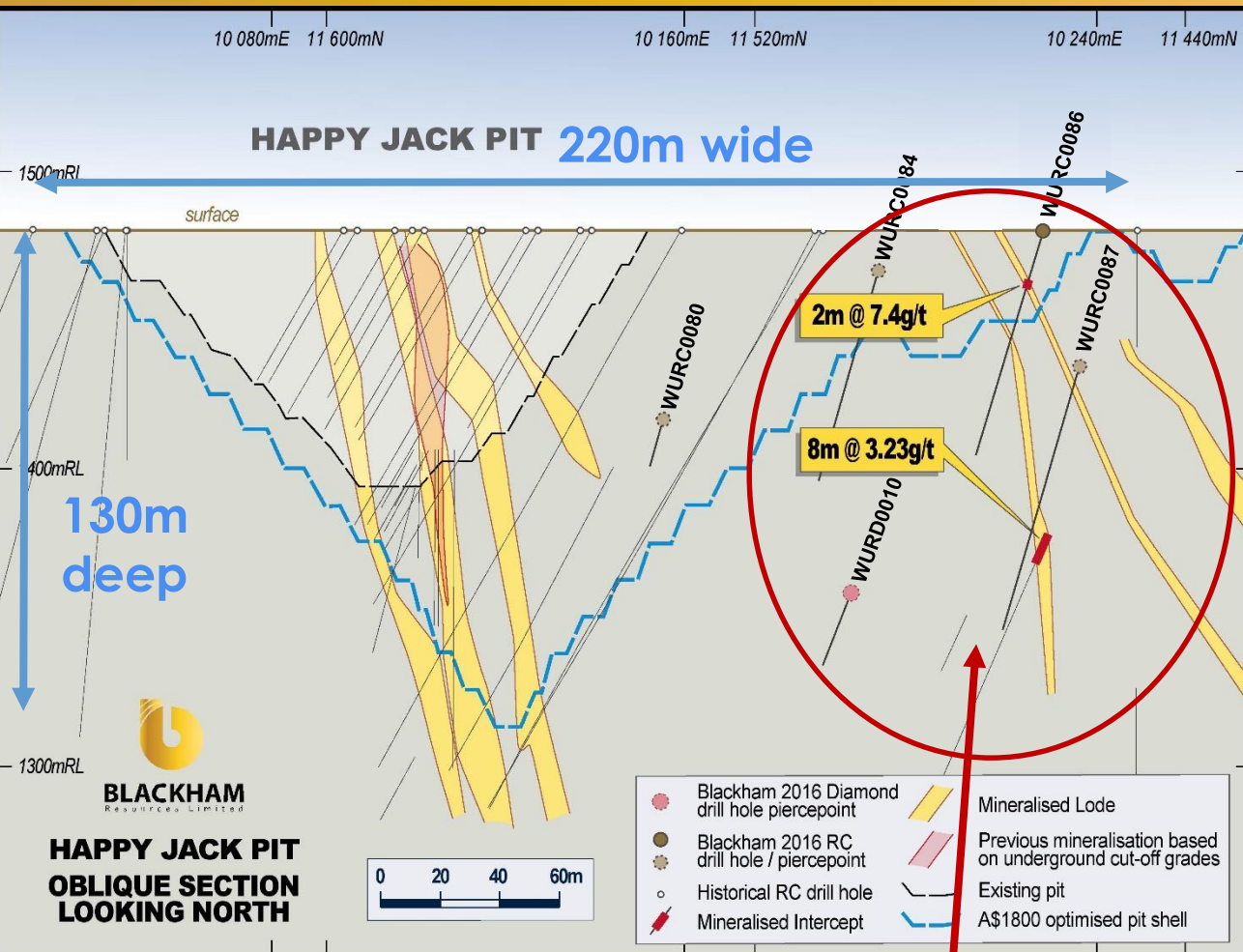
- East-West pit optimising with a grade of 2.7g/t to a maximum depth of ~230m
- Wide zones of mineralisation ideal for open pit mining
- central zone mineralisation intersected 100m to the north and 200m to the south with no drilling in between - follow up program commencing in February

# East-West pit cutback opportunity



- East-West pit optimising with a grade of 2.7g/t to a maximum depth of ~230m
- Wide zones of mineralisation ideal for open pit mining
- central zone mineralisation intersected to the north (5m @ 2.7g/t) & south (14m @ 3.7g/t)
- Follow up program commencing in February

# Happy Jack pit cutback opportunity



- Happy Jack pit optimising with a grade of 3.0g/t to a maximum depth of ~130m
- New northwest striking high grade structure has not been adequately tested

# Pits Constrained by Lack of Data at Depth

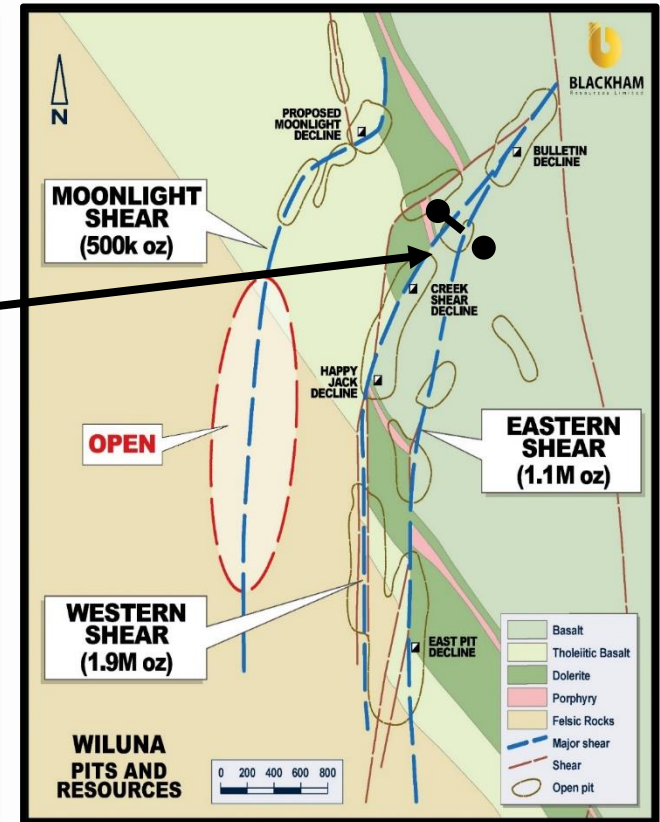
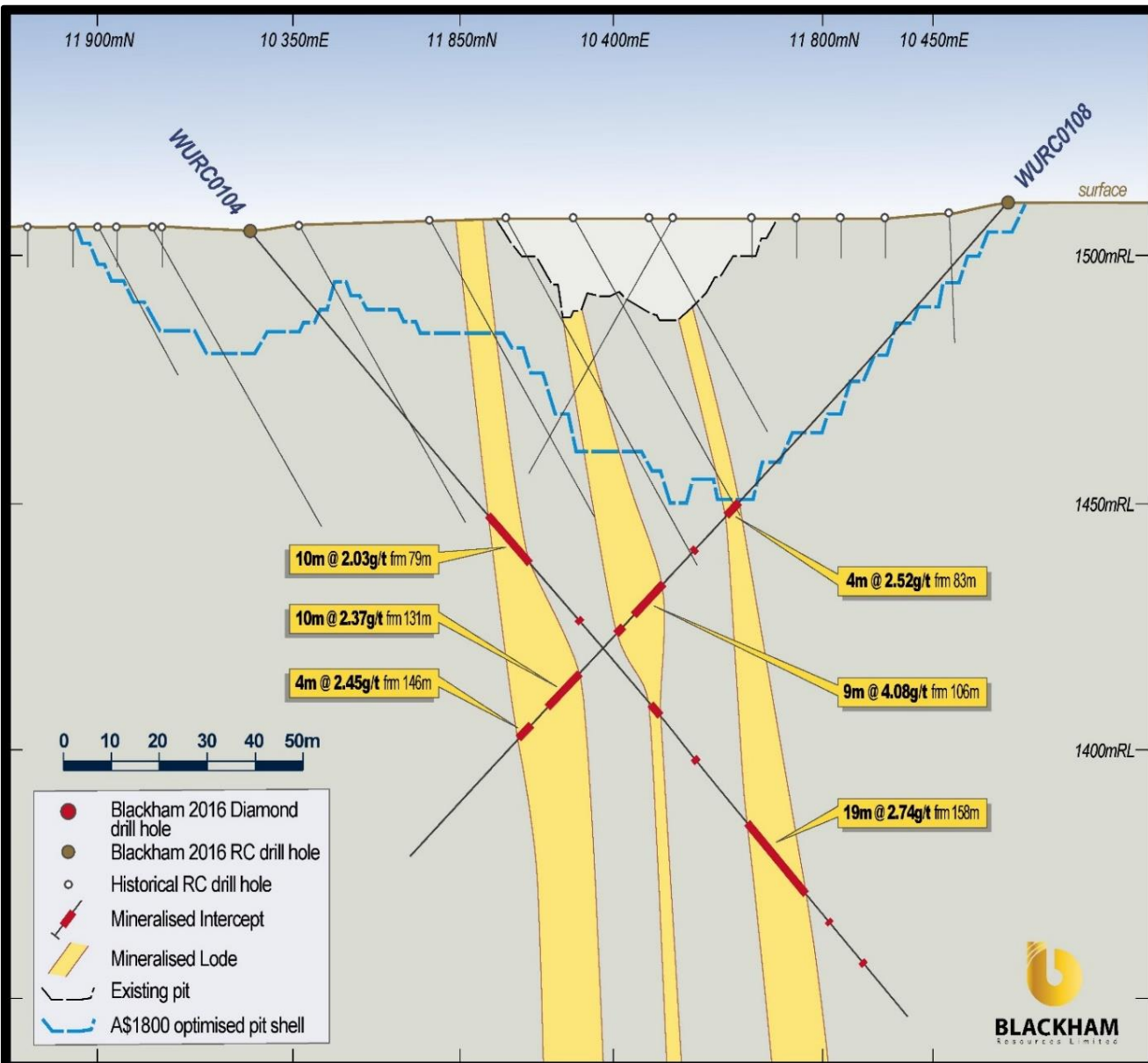
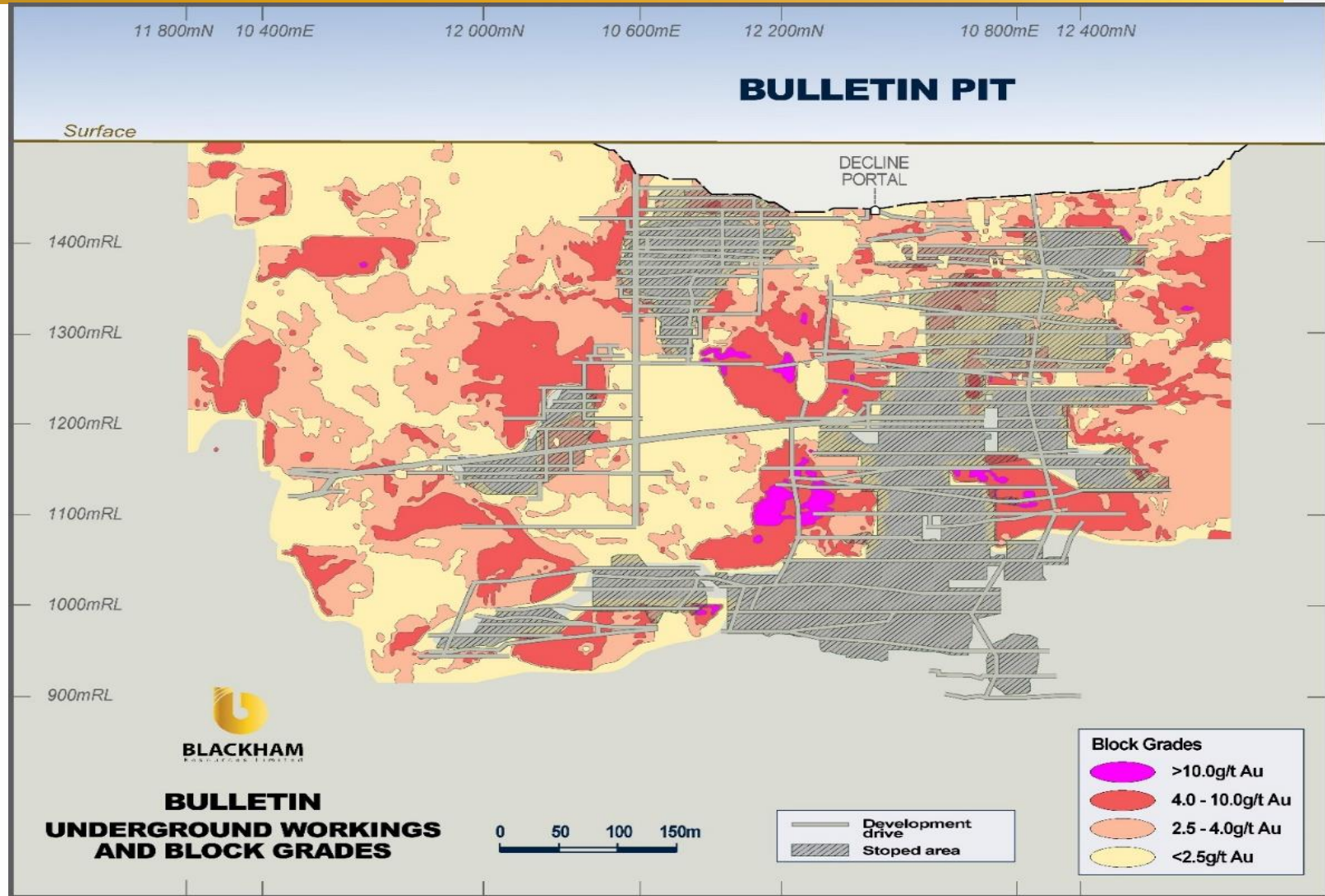


Figure - Oblique section looking north through the Gap Lode demonstrating pit optimisation was constrained by lack of data at depth. Current drilling has confirmed the deeper mineralisation extensions.

# Bulletin Mine Plan – low development capital



Little development required - currently mining Golden Age from the Bulletin Decline

# Expanded Production aimed at 3Mtpa @ 3g/t



		Matilda	Stage 1 Wiluna	Stage 2	Combined
Throughput	Mtpa	1.7		~ 1.5	~ 3.2
Grade	g/t	2.0		~ 3.8	~ 2.8
Recovery	%	92%		84%	87%
<b>Production</b>	<b>Koz</b>	<b>101koz</b>		<b>~ 155koz</b>	<b>~ 255koz</b>
Resources	Koz	1.4Moz @ 1.7g/t		5.1Moz @ 3.9g/t	6.4Moz @ 3.2g/t
Capital	\$M	\$39		?	
Timing		Oct-16		Sept 18 to Mar 19	
<b>EBITDA</b>	<b>\$M</b>	<b>\$48M</b>		<b>~ \$71M</b>	<b>~ \$119M</b>

## 1. Geological success at Wiluna leads to plans for 1.5Mtpa additional mill throughput

- Throughput is the main unknown in determining annual production
- 1.5Mtpa Expansion Study for Feb'2017 will quantify the capex and timing for the additional throughput
- Drilling & mining studies over the 5.1Moz Wiluna open pit & underground
- EBITDA assumes A\$1,600/oz revenue and \$1,120/oz AISC per ASX release 22 July 2016
- Economies of scale likely to improve costs

# Matilda/Wiluna Gold Resources



## Matilda Gold Project Resource Summary

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	0.2	2.1	13	7.6	1.8	435	4.3	1.4	200	12.0	1.7	650
Galaxy				0.4	3.1	42	0.4	2.2	25	0.8	2.7	68
Williamson Mine				3.3	1.6	170	3.8	1.6	190	7.1	1.6	360
Wiluna OP <sup>1</sup>				8.4	2.7	730	4.1	2.5	330	12.5	2.6	1,060
Regent				0.7	2.7	61	3.1	2.1	210	3.8	2.2	271
Stockpiles				0.4	1.0	13				0.4	1.0	13
<b>OP Total</b>	<b>0.2</b>	<b>2.1</b>	<b>13</b>	<b>21</b>	<b>2.2</b>	<b>1,451</b>	<b>16</b>	<b>1.9</b>	<b>955</b>	<b>37</b>	<b>2.1</b>	<b>2,422</b>
UNDERGROUND 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
Golden Age				0.5	5.3	81	0.9	3.7	110	1.4	4.3	191
Wiluna				9.4	5.2	1570	15.0	4.4	2165	24	4.7	3,735
Matilda Mine UG				0.1	2.5	10	0.6	3.6	70	0.7	3.4	80
<b>UG Total</b>				<b>10</b>	<b>5.2</b>	<b>1,661</b>	<b>17</b>	<b>4.4</b>	<b>2,345</b>	<b>27</b>	<b>4.7</b>	<b>4,006</b>
<b>Grand Total</b>	<b>0.2</b>	<b>2.1</b>	<b>13</b>	<b>31</b>	<b>3.1</b>	<b>3,112</b>	<b>32</b>	<b>3.2</b>	<b>3,300</b>	<b>63</b>	<b>3.2</b>	<b>6,428</b>

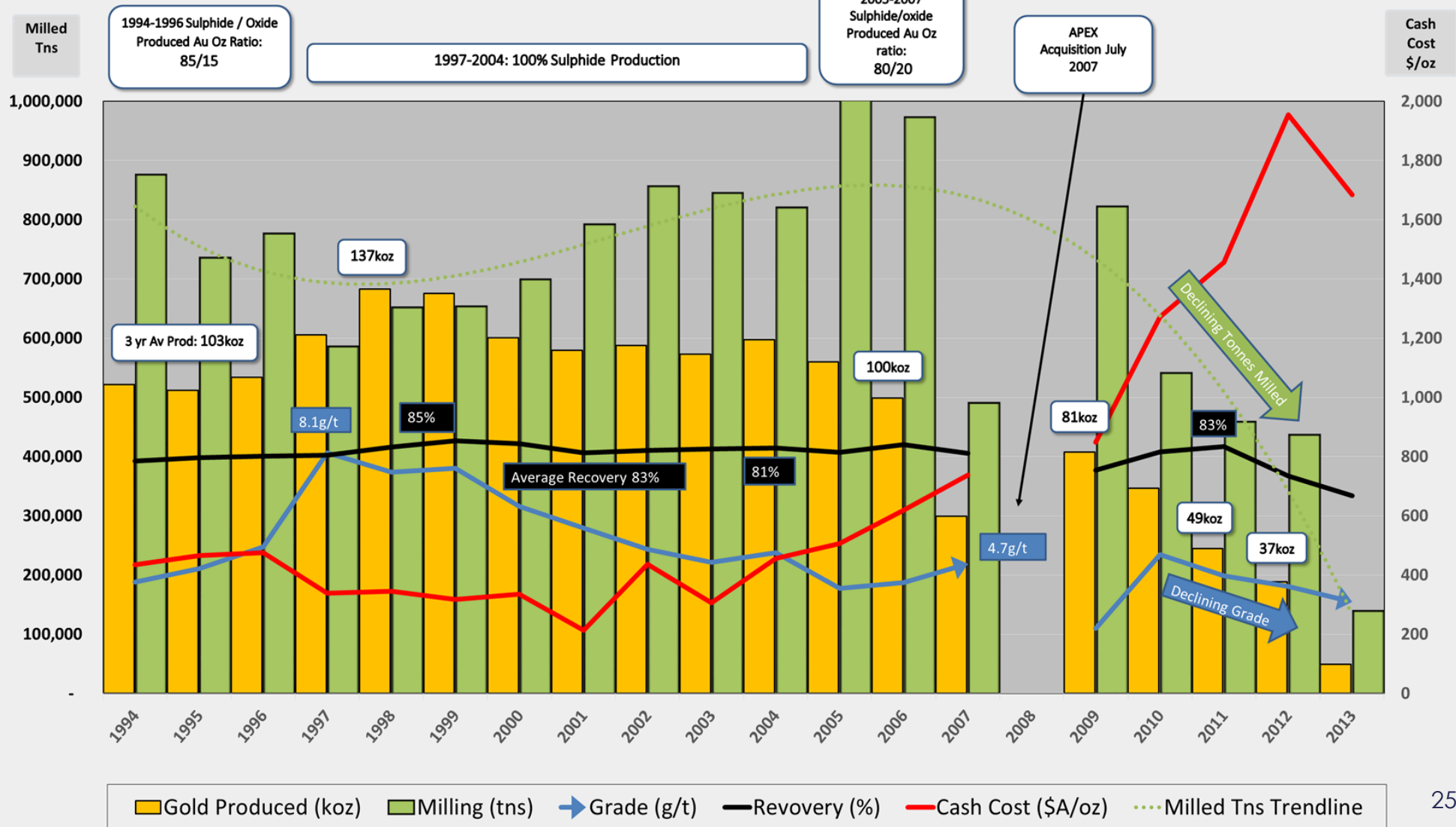
Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location shape and continuity of the occurrence and on the available sampling results. The figures in the Table above are rounded to two significant figures to reflect the relative uncertainty of the estimate. See ASX announcements 13 December 2016 and 23 January 2017 for further information



# Mining Plan the Key to Unlocking Value



## Wiluna Gold Mine Production History

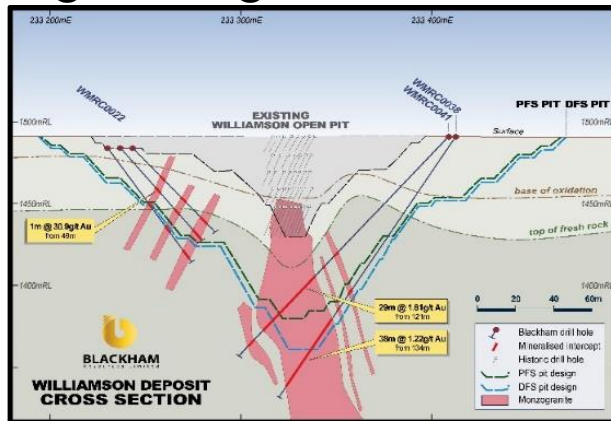


# Lake Way – large mineralised suited to bigger plant

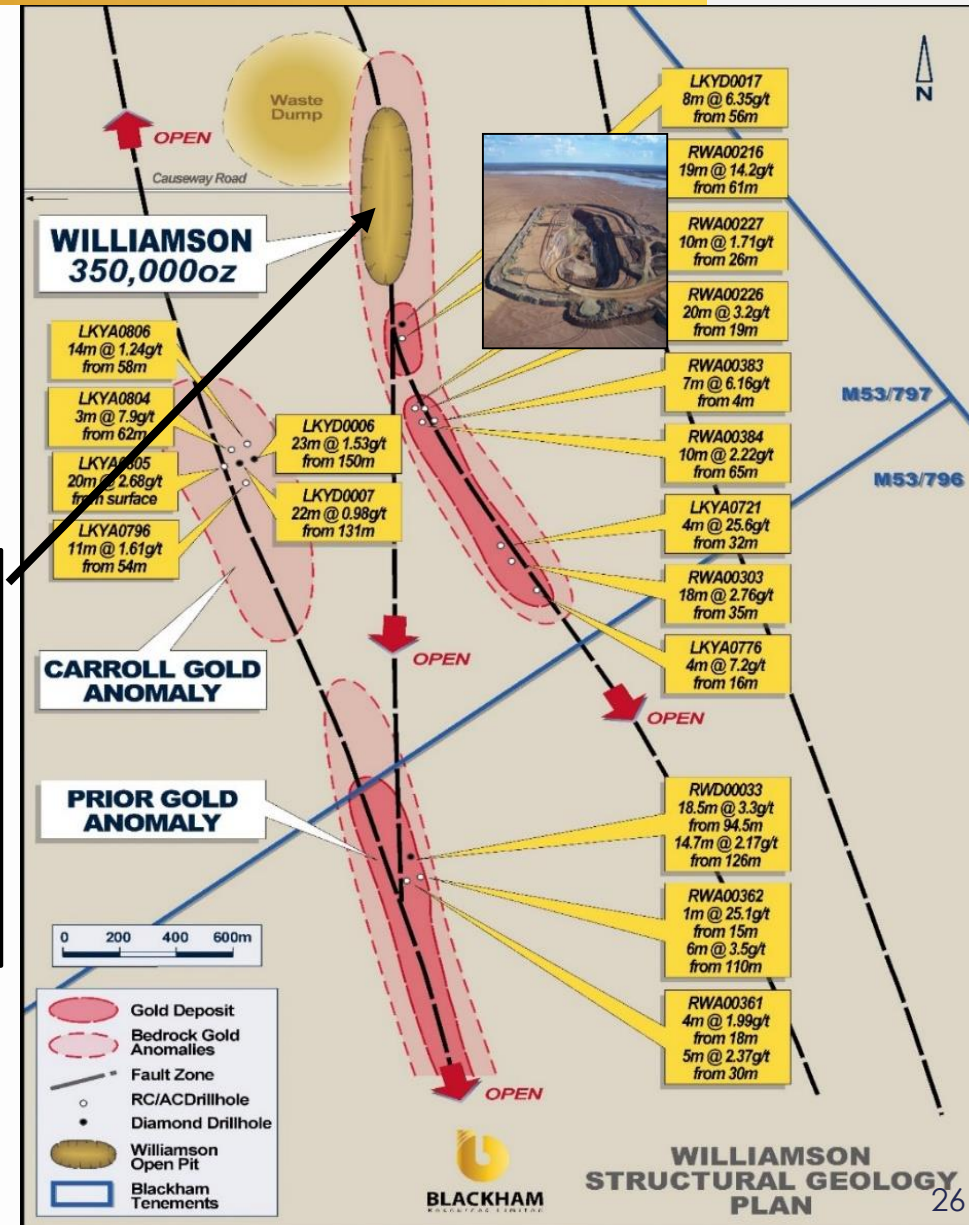


- 19km south along strike from Wiluna
- **Large tonnage potential**
- Historically Williamson produced 663kt@2.0g/t for 42,000Au
- Free milling **95%** DFS recoveries
- Main lode up to **40m wide**
- High grade underground gold

**3m@40.1g/t**  
**4.3m@17.0g/t**  
**3.5m@35.5g/t**  
**2m @ 95.1g/t**

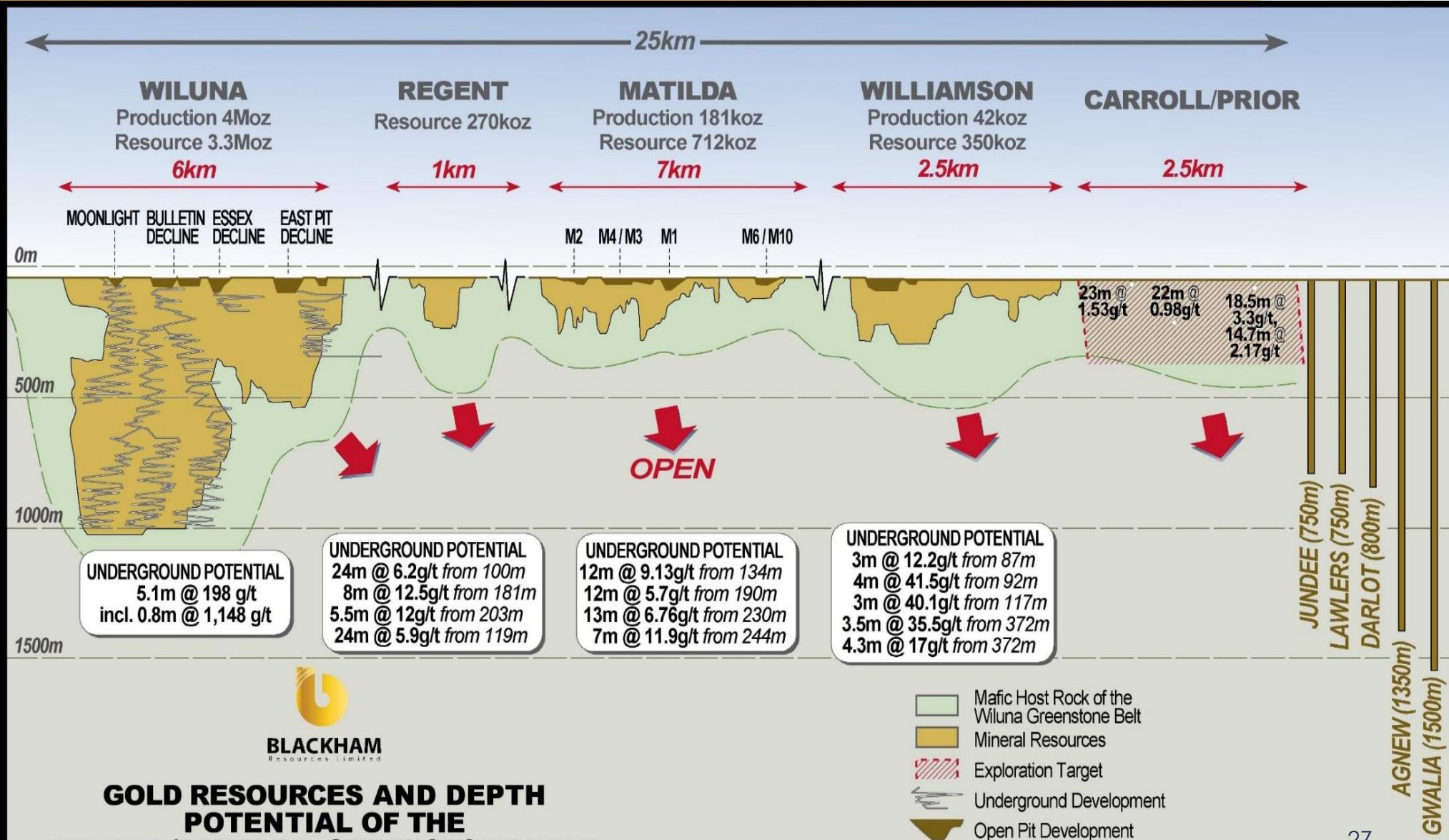


RESOURCES <sup>(1)</sup>	Mt	g/t Au	Oz Au
Indicated	3.3	1.6	170,000
Inferred	3.8	1.6	190,000
<b>TOTAL</b>	<b>7.0</b>	<b>1.6</b>	<b>360,000</b>

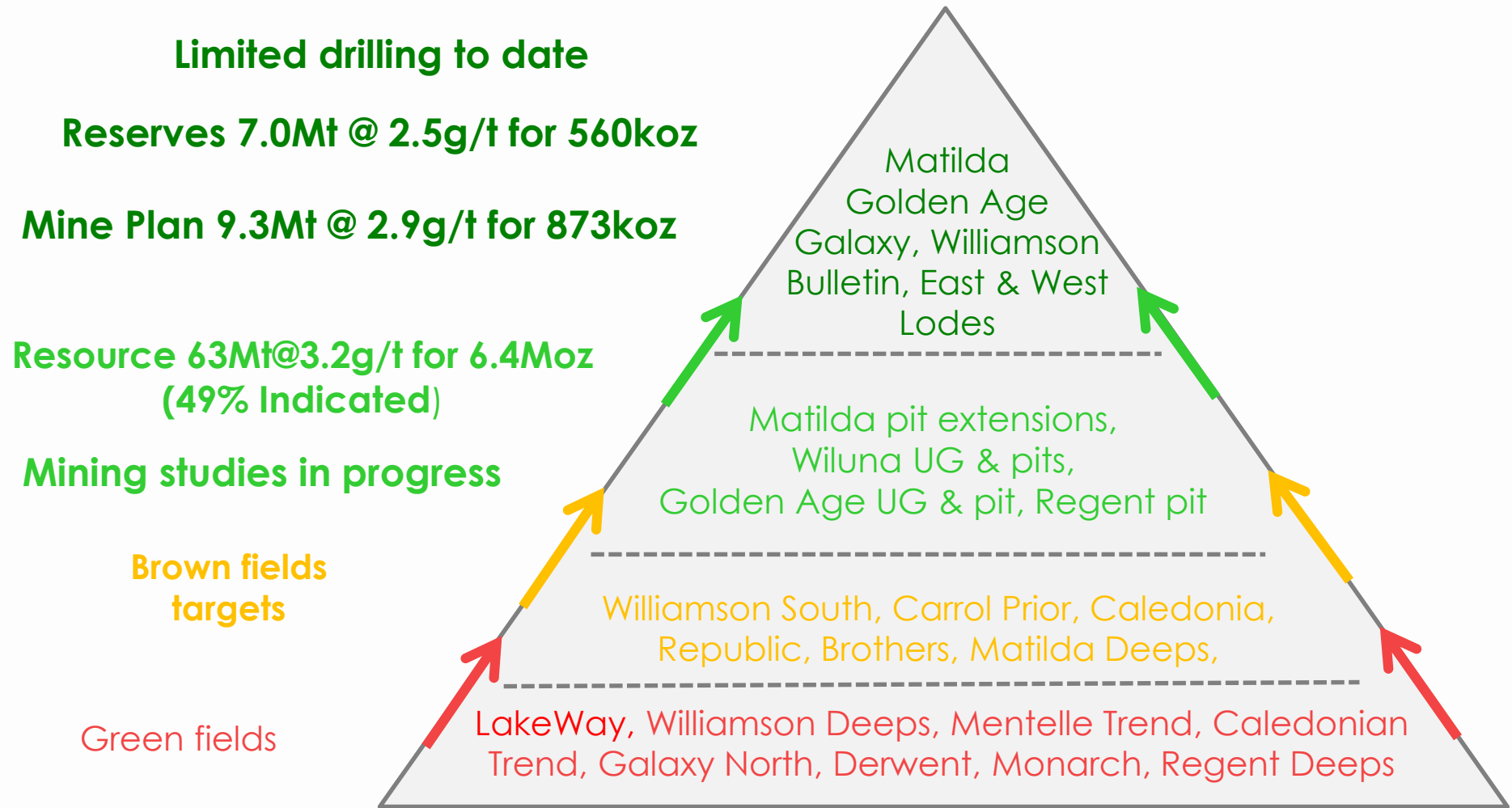


1) Refer to ASX release dated 13<sup>th</sup> December 2016

# Just Scratching the Surface



# Growing the Mine Life from Large Gold Systems



**Acquisition and exploration cost of <\$6/oz**

**Very strong conversion of Scoping mine plans to Feasibility reserves**

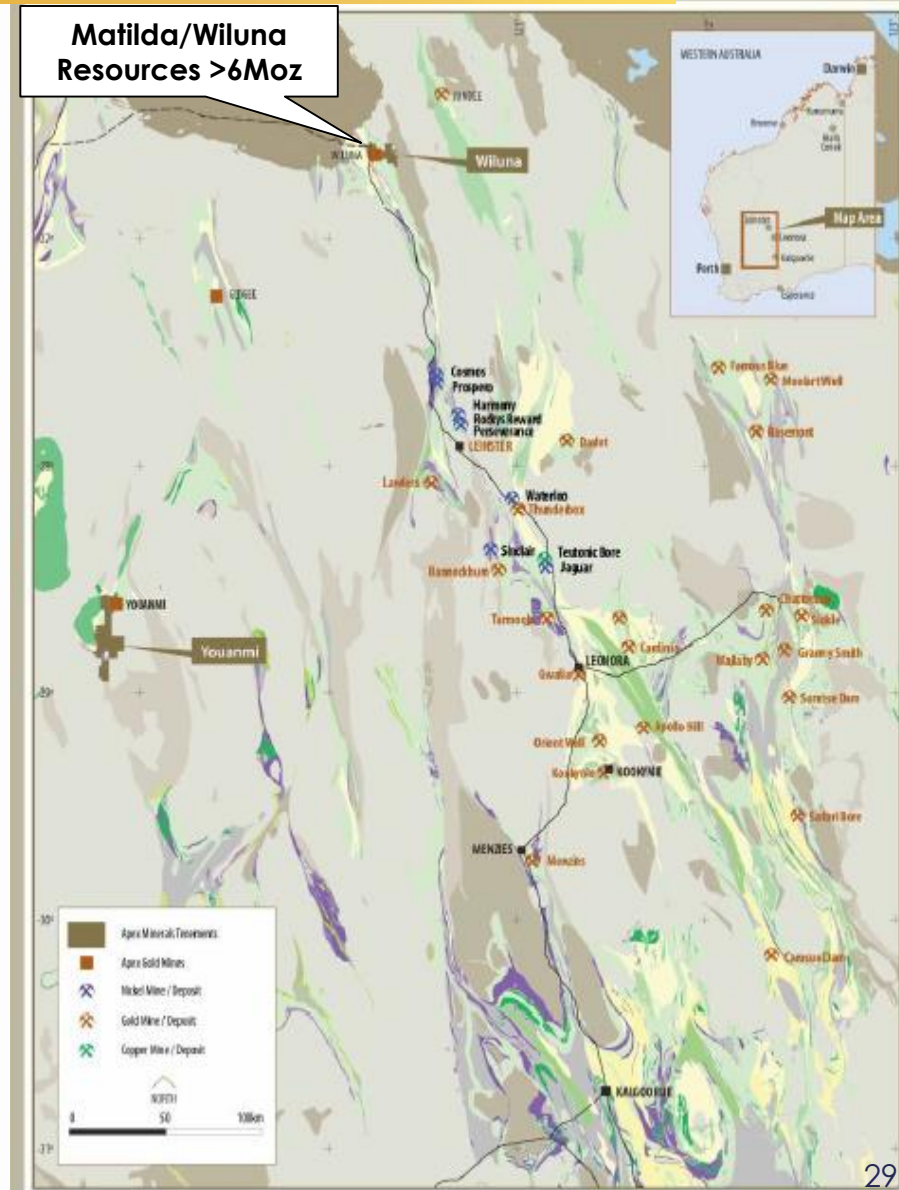
**Continuing to extend the mine plan at low costs**



# +200koz long life operations are hard to acquire

- Very few gold operations in first class precincts have the scale to be +200,000ozpa operations.
- Gold operations of this size generally sit in billion or multi-billion dollar producers.

Company	Mines	Production FY16	FY16 AISC A\$/oz
1 Newmont	Boddington	794,000	\$ 1,065
2 Newcrest	Cadia	669,000	\$ 365
3 KCGM	Superpit	632,000	\$ 1,287
4 Anglo gold Ashanti	Tropicana	491,000	\$ 895
5 Newcrest	Telfer	462,000	\$ 1,289
6 Newmont	Tanamai	436,000	\$ 965
7 Goldfields	St Ives	372,000	\$ 1,287
8 Regis	Duketon	305,000	\$ 1,015
9 Goldfields	Granny Smith	301,000	\$ 1,016
10 St Barbara	Gwalia	267,000	\$ 783
11 Evolution	Cowal	237,940	\$ 907
12 Goldfields	Agnew	237,000	\$ 1,276
13 Anglo gold Ashanti	Sunrise Dam	216,000	\$ 1,110
14 Northern Star	Jundee	209,000	\$ 1,025
<b>Blackham</b>	<b>Matilda/Wiluna - Stage 2</b>	<b>255,000</b>	<b>\$ 1,120</b>
<b>Blackham</b>	<b>Matilda - Stage 1</b>	<b>103,000</b>	<b>\$ 1,120</b>



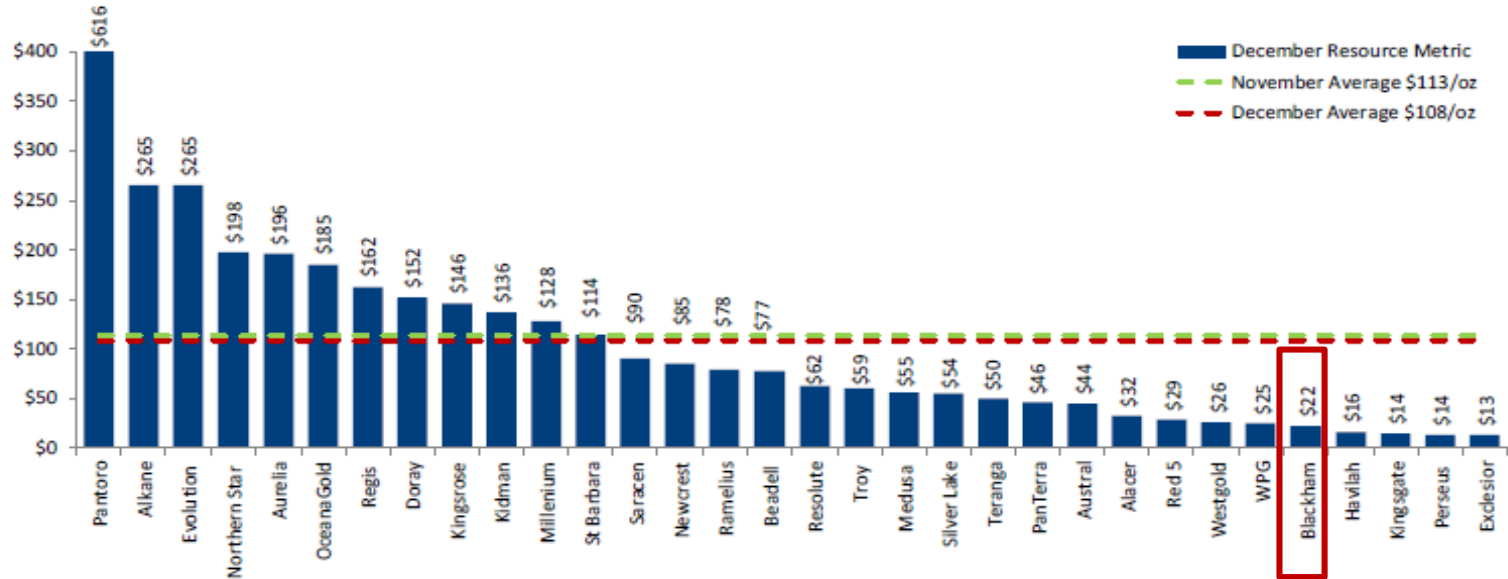
# Aussie Gold Developers Peers

Developer Peers		DCN	GOR	BLK
Market Cap	A\$M	\$384	\$521	\$197
Dev Cap	A\$M	\$220	\$228	?
Net debt /(cash)	A\$M	-\$26	-\$250	\$28
<b>Fully Funded EV</b>	A\$M	\$578	\$499	<b>\$225</b>
Gold Resources	Mt	45	67	63
	g/t	2.3	1.3	3.2
	Moz	3.3	3.1	6.4
FFEV/resource oz	\$/oz	\$174	\$159	\$38
Annual production	ozkpa	145	133	230
Existing Plant & Infrastructure		No	No	1.7Mtpa
Development Stage		DFS	DFS	Production
Production commences		Q1 2018	2018	Oct-16
Payback	years	1.8	3.5	1.0
ASIC A\$/oz		\$ 1,039	\$ 960	\$ 1,120

# Australian Gold Producer Peers

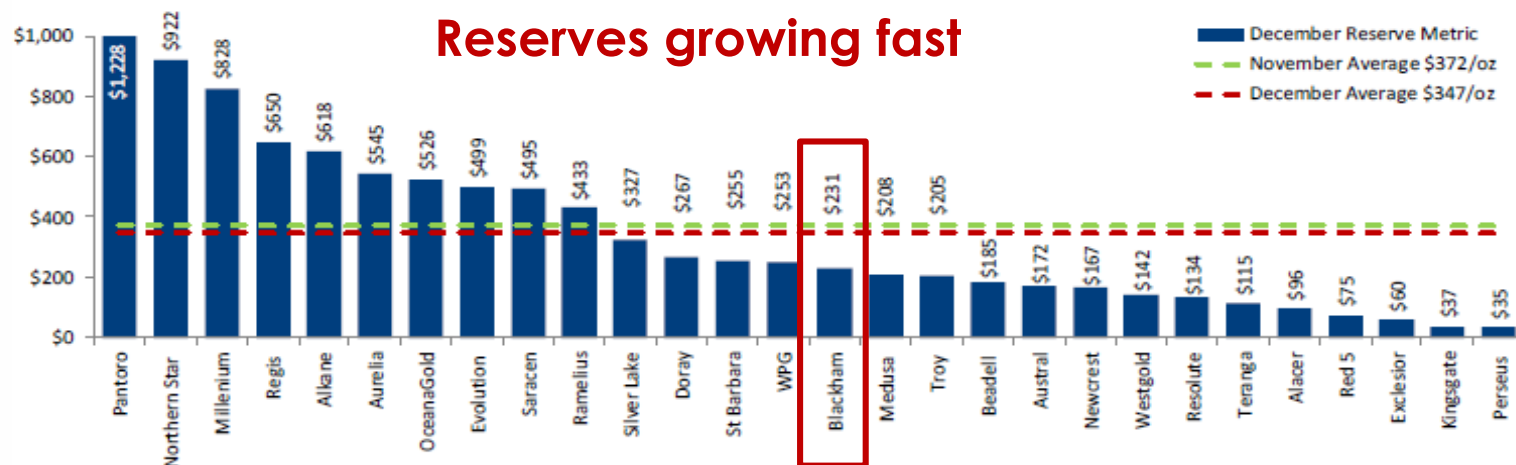


## Producers - EV / Resource (A\$/oz AuEq)



**BLK has >5.8Moz in resources outside of reserves. Mining studies progressed since last reserves being published in June 2016**

## Producers - EV / Reserve (A\$/oz AuEq)



**Source**



- Strong forecast gold production for 2017FY
- Gold producer with scaleable resources and potential of long mine life from limited drilling
- High margins and returns for shareholders
- **Expansion study underway aimed at growing production to ~ 220-260kozpa to better monetise the 6.4Moz resource**





# 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 13 December 2016 and 23 January 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.*

# Appendix B: 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>		<b>195,000</b>	<b>1.9</b>	<b>12,000</b>
<b>Total Probable Reserves</b>		<b>6,842,000</b>	<b>2.5</b>	<b>548,000</b>
<b>Total Reserves</b>		<b>7,037,000</b>	<b>2.5</b>	<b>560,000</b>

**Very strong conversion of mining inventory to reserves from scoping through to pre-production**

*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.*

# 4.3Moz Wiluna Production and 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

