

## Australian Equity Research

21 February 2016

## SPECULATIVE BUY

**PRICE TARGET** A\$0.75  
**Price (19-Feb)** A\$0.43  
**Ticker** BLK-ASX

52-Week Range (A\$): 0.09 - 0.52  
 Avg Daily Vol (M) : 0.8  
 Market Cap (A\$M): 86.8  
 Shares Out. (M) : 201.8  
 Enterprise Value (A\$M): 90.0  
 Cash (A\$M): 9.50  
 Long-Term Debt (A\$): (13.0)  
 NAV /Shr (AUC): 74.28  
 Major Shareholders: Citicorp Nominees - 13.1%  
 Orion Mine Finance - 12.5%  
 Polo Resources - 10.4%

FYE Jun	2015A	2016E	2017E	2018E
Gold Production (000oz)	0	0	74	113
All in Sustaining Cost (Gold) (US \$ /oz)	-	-	916	708
EBITDA (A\$M)	(5.0)	(2.3)	46.0	98.2
Net Income Adj (A\$M)	(5.1)	(2.3)	26.8	63.9
Free Cash Flow (A\$M)	(5.7)	(33.5)	13.4	60.5



Blackham Resources (BLK:ASX) is developing the Matilda Gold Project in Western Australia. First gold pour is expected in the 2H 2016 with a significant resource base likely to support production of ~100kozpa for an initial 5 years.

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## Initiation of Coverage

## Waltzing Matilda - The Encore

We believe Blackham Resources (BLK:ASX) is poised to be Australia's next ~100kozpa gold producer, with its Matilda gold project set to come on line in the 2H 2016. The company's consolidated landholding in the Wiluna district of Western Australia benefits from existing infrastructure allowing for a low capex, quick transition into production. Positive sentiment continues to provide good tailwinds for the Australian gold sector, and we believe this will help drive a re-rate in BLK's share price as it transitions into production and cash flow. We initiate coverage with a SPEC BUY recommendation and A \$0.75/sh price target.

## Highlights

**Definitive Feasibility Study (DFS) due imminently.** BLK is in the final phases of a DFS on its Matilda gold project, with outcomes expected in late February 2016. We have currently assumed a conservative production profile, based on PFS (October 2015) outcomes and interpretations of subsequent exploration results, which underpins a production profile of ~100kozpa at an AISC of A\$1,120/oz for 5 years. BLK is pursuing an oxide and free-milling strategy, which we believe is sustainable for 3 years based on current resources before transitioning to a higher grade sulphide ore strategy. Following the DFS, we expect to see a formal development decision, which should see first gold production within 6 months.

**Exploration potential across the landholding.** With limited access to capital over the past few years, BLK has run a targeted exploration program with a view to building free milling gold reserves. Once in cash flow, we expect BLK to significantly ramp up exploration activity on many of the prospective targets across the landholding. We see ongoing exploration success, particularly with respect to high grade Quartz Reef material, as a key value driver for BLK. Ultimately, we expect our assumed production schedule to evolve both in terms of scale and mine life as further resources are delineated.

**Low capex and short timeline to production.** An engineering review of the existing Wiluna plant estimates refurbishment capital at A\$17m, including a new gravity circuit and extension to the tailings dam. In addition, A\$11m will be allocated for pre-production mining and working capital. At the end of the DecQ'15, BLK had cash on hand of A \$9.5m, which together with an undrawn finance facility of A\$23m provides adequate funding for the capital development.

**Sulphide resource an option for down the track.** BLK has a total resource base of 4.7Moz, with 3.3Moz classified as Wiluna Sulphides. While not part of the immediate production strategy, we note that BLK's processing facility has an existing BIOX circuit which for minimal capex (CG est. ~A\$10m) could be utilised to treat ore from this considerable resource base. At this stage, we have modeled 2 years of production from the sulphide resource base but highlight the good potential for extensions beyond our current assumptions.

## Valuation

Our A\$0.75/sh price target is underpinned by the Matilda gold project (NPV10%) net of corporate and other adjustments.

## FINANCIAL SUMMARY

## Blackham Resources

ASX:BLK

Analyst: Tim McCormack  
Date: 20/02/2016  
Year End: June

Rating:  
Target Price:

**SPEC BUY**  
**\$0.75**

## Market Information

Share Price	A\$	0.43
Market Capitalisation	A\$m	86.8
12 Month Hi	A\$	0.51
12 Month Lo	A\$	0.09
Average daily turnover (3 month)	m	0.800
Issued Capital	m	201.78
ITM Options	m	31.60
Fully Diluted	m	233.38

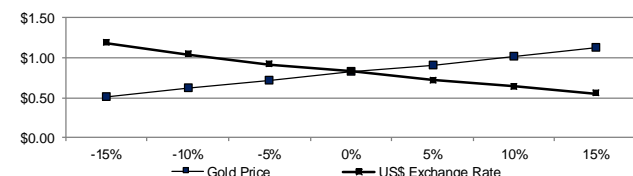
## Valuation

	A\$m	A\$/share
Matilda NPV @ 10%	181.3	0.78
Exploration & Projects	5.0	0.02
Corporate	(16.0)	(0.07)
Forwards (inc spot deferred)	-	-
Cash & Liquid Investments	9.1	0.04
Debt	(13.0)	(0.06)
Unpaid Capital	7.0	0.03
TOTAL NAV	173.4	0.74
Price:NAV		0.58x
NAV at Spot US\$1,228/oz, AUDUSD \$0.71		0.60
Target Price		0.75

## Assumptions

	2015a	2016e	2017e	2018e
Gold Price (US\$/oz)	1,226	1,181	1,250	1,255
AUD:USD	0.835	0.718	0.701	0.688
Gold Price (A\$/oz)	1,469	1,645	1,783	1,823

## Valuation Sensitivity



## Production Metrics

	2015a	2016e	2017e	2018e
Matilda				
Gold production (koz)	0	0	74.1	113.5
AISC (A\$/oz)	0	0	1,307	1,027

## Resources &amp; Reserves

	Mt	Grade	Moz
Matilda gold project - Resources			
Measured	0.2	2.1	0.0
Indicated	21.0	3.4	2.3
Inferred	24.0	3.1	2.4
Total resources	45.0	3.2	4.7

## Matilda gold project - Reserves

	Mt	Grade	Moz
Proved	0.2	1.90	0.01
Probable	3.2	2.50	0.26
Total reserves	3.4	2.50	0.27

## Directors &amp; Management

Name	Position
Milan Jerkovic	Non-Executive Chairman
Bryan Dixon	Managing Director
Alan Thom	Executive Director
Greg Miles	Non-Executive Director
Peter Rozenauers	Non-Executive Director

## Substantial Shareholders

	Shares (m)	%
Citicorp Nominees	26.50	13.1%
Orion Mine Finance	25.25	12.5%
Polo Resources	21.00	10.4%

Source: BLK &amp; Canaccord Genuity estimates

## Company Description

Blackham Resources (BLK:ASX) is developing the Matilda Gold Project in Western Australia. First gold pour is expected in the 2H 2016 with a significant resource base likely to support production of ~100kozpa for an initial 5 years.

## Profit &amp; Loss (A\$m)

	2015a	2016e	2017e	2018e
Revenue	0.0	0.0	132.4	206.9
Operating Costs	0.0	0.0	-76.1	-94.4
Royalties	0.0	0.0	-6.6	-9.1
Corporate & O'heads	-3.2	-2.3	-3.7	-4.2
Exploration (Expensed)	-1.7	0.0	0.0	-1.0
EBITDA	-5.0	-2.3	46.0	98.2
Dep'n	-0.0	0.0	-4.4	-6.8
EBIT	-5.0	-2.3	41.6	91.4
Net Interest	-0.1	-1.0	-3.2	-0.1
Tax	0.0	1.0	-11.5	-27.4
NPAT	-5.1	-2.3	26.8	63.9
Abnormals	0.0	0.0	0.0	0.0
NPAT (reported)	-5.1	-2.3	26.8	63.9

## Cash Flow (A\$m)

	2015a	2016e	2017e	2018e
Cash Receipts	0.0	0.0	132.4	206.9
Cash paid to suppliers & emp	-5.5	-2.2	-86.4	-107.6
Tax Paid	0.0	0.0	-9.6	-27.4
Net Interest	-0.0	-1.0	-3.2	-0.1
Operating Cash Flow	-5.5	-3.2	33.2	71.7
Exploration and Evaluation	0.0	-7.3	-4.0	-4.0
Capex	-0.3	-21.1	-15.7	-7.3
Other	0.1	-2.0	0.0	0.0
Investing Cash Flow	-0.2	-30.4	-19.7	-11.3
Debt Drawdown (repayment)	6.0	30.0	-5.8	-21.6
Share capital	8.0	1.1	0.0	0.0
Dividends	0.0	0.0	0.0	0.0
Financing Expenses	0.6	0.0	0.0	0.0
Financing Cash Flow	14.6	31.1	-5.8	-21.6
Opening Cash	0.6	8.3	5.8	13.5
Increase / (Decrease) in cash	8.9	-2.4	7.7	38.8
FX Impact	0.0	0.0	0.0	0.0
Closing Cash	9.5	5.8	13.5	52.3

## Balance Sheet (A\$m)

	2015a	2016e	2017e	2018e
Cash + S/Term Deposits	8.3	5.8	13.5	52.3
Other current assets	1.8	6.1	41.0	68.7
Current Assets	10.2	11.9	54.5	121.1
Property, Plant & Equip.	2.4	23.4	34.7	35.2
Exploration & Develop.	31.8	39.1	43.2	46.3
Other Non-current Assets	0.0	0.0	0.0	0.0
Payables	1.2	0.0	10.6	16.7
Short Term debt	0.0	5.8	21.6	8.6
Long Term Debt	6.0	30.3	8.6	0.0
Other Liabilities	19.4	21.9	48.2	70.0
Net Assets	17.8	16.5	43.4	107.3
Shareholders Funds	31.6	32.7	32.7	32.7
Reserves	1.5	1.5	1.5	1.5
Retained Earnings	-15.3	-17.6	9.3	73.2
Total Equity	17.8	16.5	43.4	107.3

## Ratios &amp; Multiples

	2015a	2016e	2017e	2018e
EBITDA Margin	nm	nm	35%	47%
EV/EBITDA	nm	nm	2.3x	0.4x
Op. Cashflow/Share	-\$0.06	-\$0.02	\$0.16	\$0.36
P/CF	-7.5x	-27.5x	2.6x	1.2x
EPS	-\$0.05	-\$0.01	\$0.13	\$0.32
EPS Growth	nm	nm	-1088%	138%
PER	-8.5x	-31.9x	3.2x	1.4x
Dividend Per Share	\$0.00	\$0.00	\$0.00	\$0.00
Dividend Yield	0%	0%	0%	0%
ROE	-29%	-14%	62%	60%
ROIC	-13%	-2%	73%	196%
Debt/Equity	34%	183%	20%	0%
Net Interest Cover	-13.7x	-1.5x	12.5x	60.6x
Book Value/share	\$0.18	\$0.08	\$0.22	\$0.53
Price/Book Value	2.3x	5.2x	2.0x	0.8x

## Valuation

- We have based our valuation for BLK on a DCF analysis (NPV10%) of the Matilda gold project. Key assumptions are predicated on the PFS (October 2015), together with our interpretation of subsequent exploration results which underpin a ~100kozpa production profile for ~5 years. We expect to see the completion of a Definitive Feasibility Study (DFS) imminently, which will allow a development decision shortly thereafter. In our view, the DFS should confirm the viability of a low capital cost project, and we expect first production within 6 months of a formal development decision.

Figure 1: Sum-of-parts valuation for BLK

Valuation		A\$m	A\$/share
Matilda	NPV @ 10%	181.3	0.78
Exploration & Projects		5.0	0.02
Corporate		(16.0)	(0.07)
Forwards (inc spot deferred)		-	-
Cash & Liquid investments		9.1	0.04
Debt		(13.0)	(0.06)
Unpaid Capital		7.0	0.03
<b>TOTAL NAV</b>		<b>173.4</b>	<b>0.74</b>
Price:NAV			0.58x
NAV at Spot US\$1,228/oz, AUDUSD \$0.72			0.60
<b>Target Price</b>			<b>0.75</b>

Source: Canaccord Genuity estimates

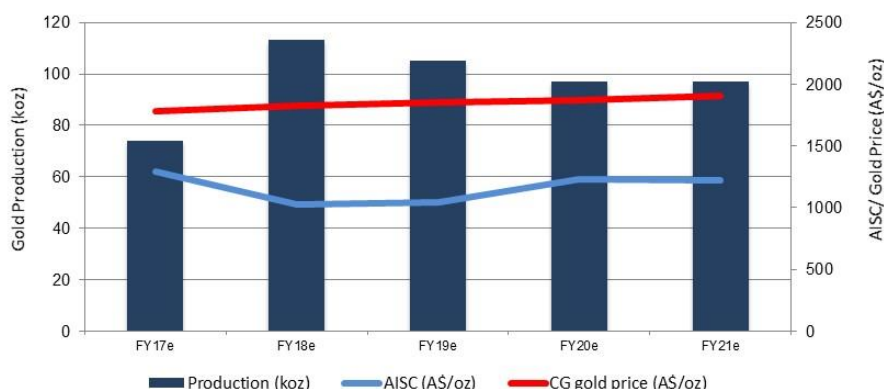
Figure 2: FX and commodity price assumptions

	2015A	2016E	2017E	2018E	2019E	2020E	2021E (LT)
Gold (US\$/oz)	\$1,160	\$1,248	\$1,252	\$1,258	\$1,266	\$1,278	\$1,307
Gold (A\$/oz)	\$1,537	\$1,768	\$1,799	\$1,843	\$1,855	\$1,893	\$1,938
US/AUS Exchange	\$0.755	\$0.706	\$0.696	\$0.683	\$0.683	\$0.675	\$0.675

Source: Canaccord Genuity estimates

- Figure 3 demonstrates our forecast production and AISC profile for the Matilda gold project. We have assumed BLK refurbish the existing 1.3Mtpa Wiluna mill, with ore primarily sourced from the Matilda and Galaxy open pits and the Golden Age underground over the first 3 years of production. We then assume two years of production predominantly from the East/West underground lodes topped up with base load material from the Williamson open pit. Our 5-year production profile forecast averages ~100kozpa at an AISC ~A\$1,120/oz.

Figure 3: CG assumed production and cost profile



Source: Canaccord Genuity estimates

## Development Strategy

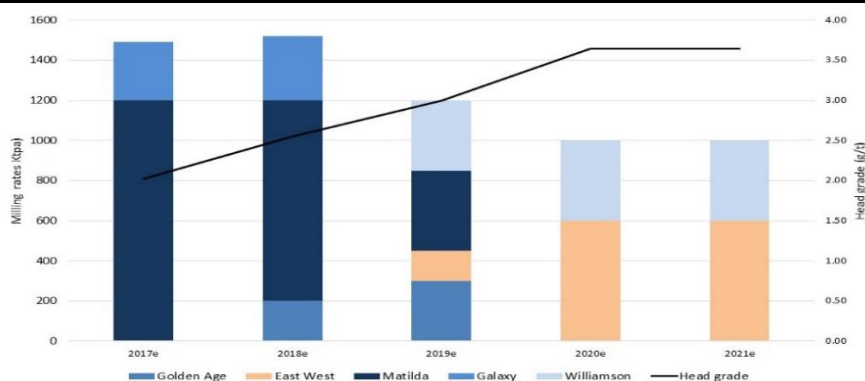
- We have assumed BLK develops the Matilda gold project formatively as a +1.3Mtpa oxide and free milling gold operation, with the base load oxide ore from the Matilda open pits supplemented by high grade free milling gold from the Golden Age underground and Galaxy open pit. Based on current resources we believe this can be sustained for 3 years, after which we have modeled the operation processing predominantly high grade sulphide ore from the East/West Lodes for a further 2 years.
- Ultimately, we expect that the duration of the free milling strategy extends beyond our assumptions on the back of further exploration success. At this stage, however, we remain conservative and await outcomes from a DFS on the project that should provide better optics on the scheduling of ore supply over the mine life.
- We highlight that BLK's strategy to target free milling ore and oxide ore exclusively in the early years of production is a unique approach. In the context of previous owners, the higher grade refractory sulphide ores were typically seen as the primary ore supply. In our view, we see the development strategy as the logical way to establish cash flow while maintaining the attractive optionality that exists to exploit the 3.3Moz sulphide resource base down the track.
- To date, BLK has completed a number of development milestones, which we expect will culminate in the release of a DFS this month.
  - December 2014: Scoping Study
  - June 2015: Executed a A\$38.5m funding package Orion Mine Finance.
  - October 2015: Completed a PFS, including a mining inventory of 6Mt at 2.8g/t for 540koz.
  - Subsequent to release of the PFS, considerable drilling success has demonstrated good potential for extensions to mine life, particularly in the oxide and free milling deposits. We have conservatively captured this in our production assumptions.
  - February 2016: Finalization of a DFS expected imminently with many of the pit optimisations and metallurgical outcomes already released.
- Key inputs underpinning our valuation are outlined in Figure 4, which support a ~100kozpa operation at an average AISC of A\$1120/oz.

**Figure 4: Key assumptions; first production assumed late SepQ'16**

Key assumptions	CG assumed
Production start	SepQ'16
Total gold mined	574koz
Assumed underground gold mined	305koz
Assumed open pit gold mined	268koz
Recovered gold for sale	487koz
Capex	A\$28m
Sustaining capex LOM (included A\$10m for BIOX refurb and UG mine development)	A\$67m
Processing rate	1.7Mtpa to < 1Mtpa
Head grade (LOM)	2.85g/t
Recoveries	93-83%
LOM production (average)	~100kozpa
LOM C1 costs	A\$910/oz
LOM AISC	A\$1120/oz
Mine life	5 years
NPV (10%)	A\$182m

Source: Canaccord Genuity estimates

- Final mining proposals (Notice of Intent to mine) have been submitted (January 8 2016) to the Mines Department and we expect approvals to be received within 3 months. Following the release of the DFS this month, final approvals will be the catalyst to allow BLK to make an official development decision. We have allowed 6 months for the mill and camp refurbishment phase and expect to see first gold poured late in the SepQ'16.
- It is envisaged that BLK will continue to work on the sulphide mineralization aspect of the project, especially considering it has had over A\$100m of development drilling completed by previous owners. This represents a unique organic growth opportunity that has the capacity to significantly increase production and mine life.
- An engineering review of the Wiluna plant estimates refurbishment capital at \$17m, including a new gravity circuit and extension to the tailings dam. An additional \$11m is required for pre-production mining and working capital (including pre-strip) for a total capital requirement of \$28m.
- Metallurgical work for the DFS has confirmed expected operating parameters for the oxide open pit ore (93% recoveries) and only minimal changes to the existing mill circuit are required. BLK plans to add a gravity circuit to the capture free gold that should improve reagent costs and leach times. Figure 5 demonstrates our forecast milling rates over the assumed mine life, noting that through-put reduces significantly in years 4 and 5 with harder open pit ore from Williamson and underground supply from the East/West lodes.

**Figure 5: CG estimates for ore supply over the 5-year mine life**

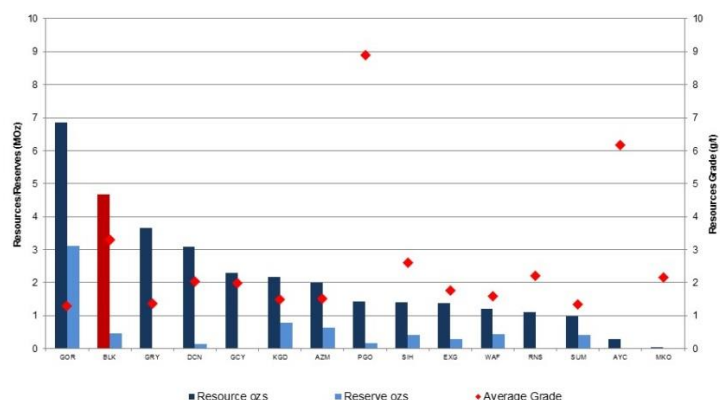
Source: Canaccord Genuity estimates



## Peer Comparisons

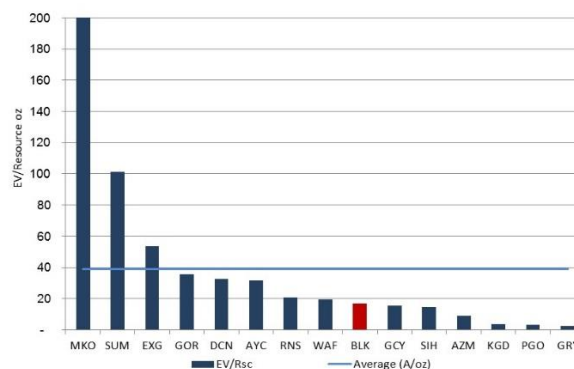
- BLK measures up well against its peer group (determined as ASX-listed pre-production companies that have prepared a level of feasibility study in the last 2 years) across a number of metrics. With the exception of Dacian Gold (DCN:ASX | SPEC BUY) and Gold Road (GOR:ASX | Not rated), BLK will be the only other +100kozpa producer likely to be developed on a standalone basis in the next 2 years, in our view. The majority of its peers are assuming smaller scale toll treating, heap leach or staged development propositions.
- A key advantage in the BLK investment thesis is the immediacy of production, which should see it benefit from the tailwinds its producing peers are currently experiencing. We view production as achievable within 6 months from an investment decision (we anticipate this to follow the DFS).
- We expect to see an updated reserve released in line with the DFS later this month. Based on the mining inventory outlined in the PFS, we expect to see a maiden reserve of between 500-700koz that should comfortably underpin a +5-year mine life.

Figure 6: Resource and Reserves of gold developers



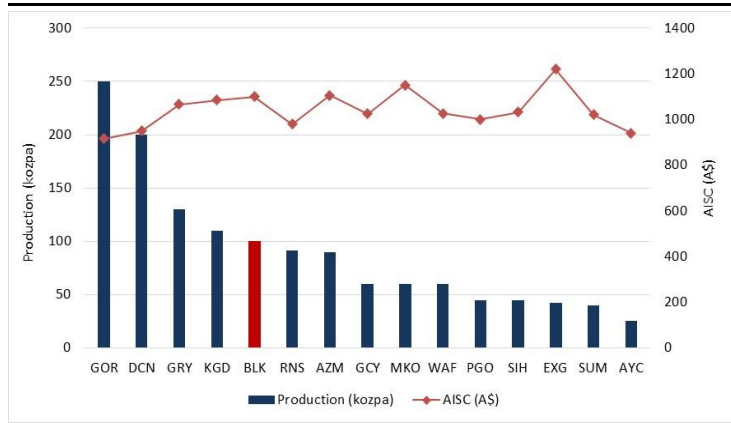
Source: Company Reports, Canaccord Genuity estimates

Figure 7: EV/Resource



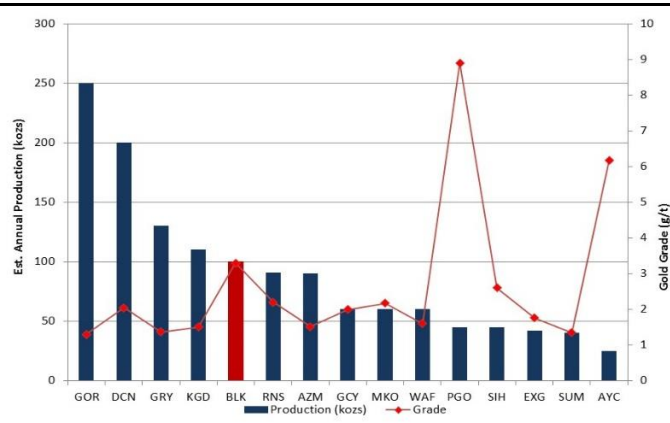
Source: Company Reports, Canaccord Genuity estimates

Figure 8: Estimated annual production and AISC (A\$)



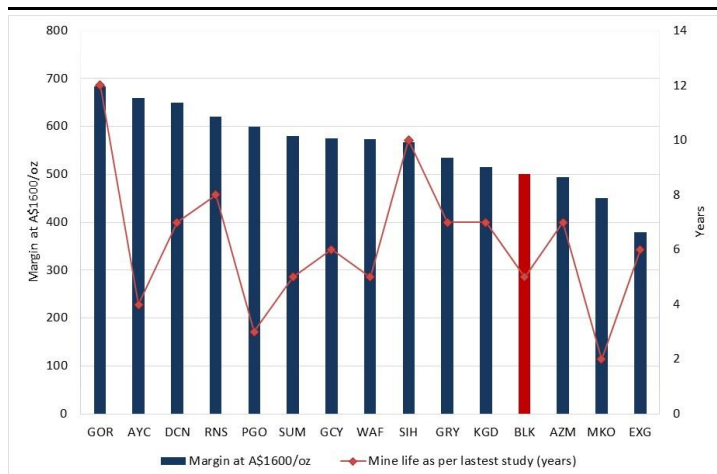
Source: Company Reports, Canaccord Genuity estimates

Figure 9: Estimated annual production and resource grade



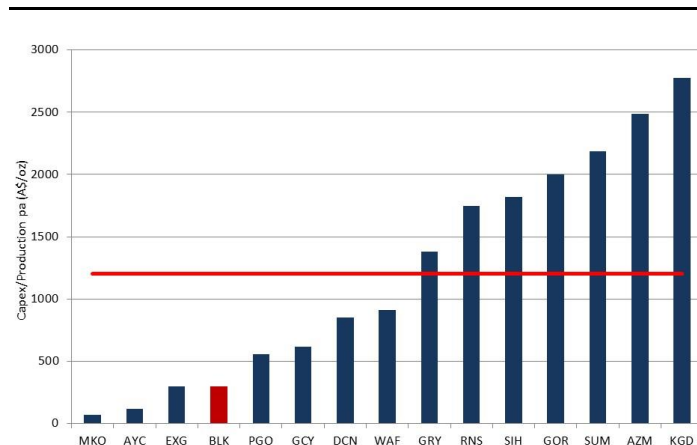
Source: Company Reports, Canaccord Genuity estimates

Figure 10: Estimated margin at A\$1600/oz and mine life



Source: Company Reports, Canaccord Genuity estimates

Figure 11: Capital intensity



Source: Company Reports, Canaccord Genuity estimates

## Corporate and Finance

- BLK currently has 201.7m ordinary shares on issue and with the recent move in its share price nearly all options are now in-the-money. Figure 12 shows a break-down of the issued and quoted securities, noting the potential for meaningful injections of capital from the exercise of Options 1 and 14. On a fully diluted basis, BLK has a market cap of A\$105m. BLK has traded with good liquidity for a pre-production company with +500k shares per day trading on a 12-month basis and +850k shares per day trading on a 3-month basis.

Figure 12: Issued and quoted securities for BLK (end of DecQ'15)

Issued shares		Number quoted (m)	Price	
Ordinary shares		201.781	\$0.50	
Options	Expiry date	Number quoted (m)	Exercise price A\$/sh	Value (A\$m)
Options 1	5/06/2016	4.5	0.21	0.96
Options 2	1/06/2016	0.8	0.27	0.20
Options 3	31/07/2016	0.2	0.21	0.03
Options 4	29/05/2017	2.5	0.30	0.75
Options 5	1/06/2017	0.6	0.30	0.18
Options 6	24/06/2017	0.3	0.25	0.07
Options 7	24/06/2017	0.1	0.30	0.03
Options 8	1/09/2016	1.0	0.23	0.23
Options 9	1/09/2017	1.0	0.30	0.30
Options 10	9/11/2016	0.6	0.12	0.07
Options 11	14/12/2017	2.0	0.50	
Options 12	3/02/2017	1.0	0.20	0.20
Options 13	3/02/2018	1.0	0.30	0.30
Options 14	31/12/2017	16.7	0.18	3.00
Options 15	13/10/2017	1.8	0.26	0.45
Options 16	13/10/2017	0.5	0.20	0.10
Options 17	31/12/2017	0.7	0.26	0.18
Options 18	6/12/2017	0.5	0.26	0.13
Total options in the money		33.6	0.21	7.06

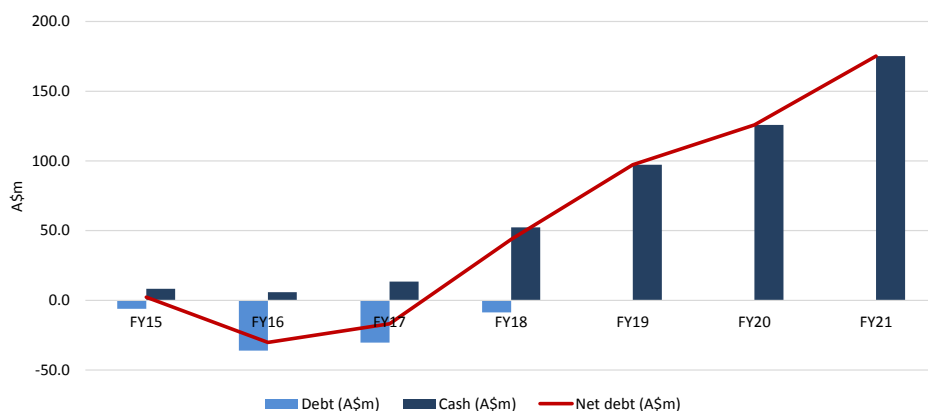
Source: Company Reports, Canaccord Genuity estimates

- At the end of the DecQ'16, BLK reported a cash and liquid investment position of A\$9.1m, with outstanding debt of A\$13m (non-amortising on the terms of the Initial Loan described below). In May 2015, BLK finalized a A\$38.5m funding package with Orion Mine Finance Group which should see it funded for the capital requirement to get to production. Key aspects of the financing are outlined below:
  - **May 2015 Private Placement.** BLK issued 19.2m shares to Orion to raise ~A\$2.5m at a price of A\$0.13/sh. The placement gave Orion an ownership position of ~12.5% in BLK.
  - **June 2015: Initial Loan of A\$6m.** Proceeds were used to fund drilling, DFS work and for general working capital purposes. Key terms of the loan are: Non-Amortising term loan maturing on 31 December 2017, with an interest rate of 9.5% pa plus the greater of 3 month Bank Bill Swap Rate (BBSW) and 2%. Interest will accrue over the term of the loan and will be capitalised quarterly. Orion also received 33.3m non-listed options at an exercise price of \$0.18 per share with an expiry date of 31 December 2017.
  - **December 2015: Advance of \$7m of the Project Loan.** Issued on the same terms as the Initial Loan described above, Orion agreed to advance A\$7m of the originally negotiated A\$30m Project Loan. This allowed the ordering of long lead items, allowed initial plant refurbishment to begin and funding for completion of the DFS by the end of February 2016.
  - **Undrawn Project Loan of A\$23m.** This is a senior secured project financing facility, conditional on Orion's satisfaction with the successful completion of the DFS and all remaining permits being received for the Matilda Gold Project. The facility has a maturity date of 31 August 2018, with an interest rate of 7.5% pa plus the greater of 3-month BBSW and 2%. Interest will accrue over the term of the loan and will be capitalised quarterly. Orion has a first priority security interest in all of the material assets of the Company including the Matilda Gold Project until such time as full repayment of the loan plus all accrued interest is satisfied.
  - **Gold Offtake.** BLK and Orion have also entered into an Offtake Agreement, whereby BLK has agreed to sell and Orion has agreed to purchase gold expected to be produced from the Matilda project. BLK will sell 50% of the gold produced from Matilda until it has delivered 250koz to Orion. The payment price for the gold will be determined in the context of the market at the time of delivery, subject to certain quotational periods.
- The Orion Mine Finance Group is a mining-focused investment business with approximately US\$1.8bn of funds under management (as of December 31, 2014), specializing in providing flexible capital investment solutions to junior mining companies in the base and precious metals sector. Orion has capabilities in debt, equity, convertibles, offtake, streaming, and royalty investments. At the time of the initial A\$6m drawdown, Peter Rozenauers (portfolio manager of Orion) was appointed to the Board and a Non-Executive Director.
- Based on our production and gold price assumptions, we see no issues with BLK servicing the modest debt requirements. We do note, however, that cash levels run tight through the construction phase based on funds available in the remaining Orion facility. In our view, any significant delays or cost over runs may see the company need to access additional capital. While this does



present some funding risk, considering the low level of gearing, we see no impediment to BLK accessing additional funding via an extension to the existing facility or through a new debt arrangement.

**Figure 13: Modeled cash and debt profile of the project life**



Source: Canaccord Genuity estimates

## Board and Management

- *Milan Jerkovic - Independent Non-Executive Chairman*

Milan Jerkovic is a qualified geologist with a post graduate qualification in Mining & Mineral Economics. He has over 30 years' experience including resource evaluation, operations, financing, acquisition, and project development. He was the CEO of Straits Resources and WMC, BHP, Nord Pacific, Hargraves, Tritton Resources and Straits Asia.

- *Paul Murphy - Independent Non-Executive Deputy Chairman*

Paul Murphy is a former banker with extensive experience in finance, strong relationships within the banking, finance and broking community as well as an impeccable reputation in the industry.

- *Bryan Dixon - Managing Director*

Bryan Dixon's skills and experience include project acquisition, mine development and financing. Has been involved in development and financing of 3 gold mines. Having previously worked with KPMG, Resolute Limited and Archipelago Resources Plc, he has substantial experience in the mining sector and the management of listed public companies.

- *Alan Thom - Executive Director*

Alan Thom, a mining engineer, has extensive mining experience. He holds a Western Australian First Class Mine Managers Certificate and has held statutory mine and management positions for Newmont in both underground and open-pit operations at Jundee and Bronzewing. He has managed a number of definitive and bankable feasibility studies for significant resource projects.

- *Greg Miles - Non-Executive Director*

Greg Miles graduated as a geologist and has since worked in a number of different commodities and mineral provinces across a broad portfolio of

grass-roots to development projects. Professional highlights include involvement in the discovery of the 2.3Moz Centenary Deposit at the Darlot Gold Mine in WA.

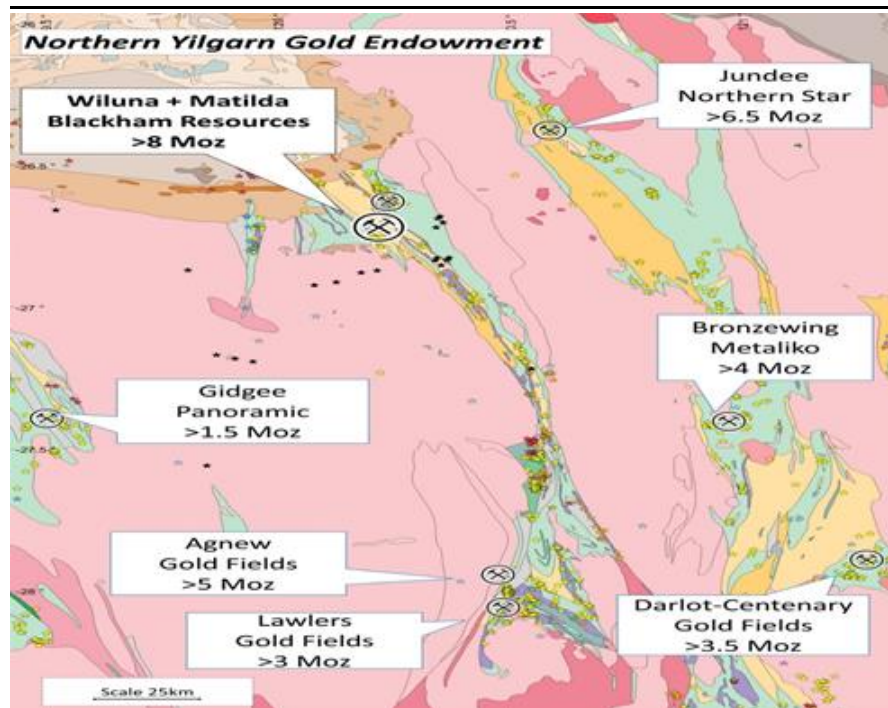
- *Peter Rozenauers -Non-Executive Director*

Peter Rozenauers has extensive experience in commodities, equities and FX. Peter earned a BEng (Honours 1) in Mining from the University of NSW and a Masters in Applied Finance from the University of Technology Sydney.

## Background

- BLK is an Australian gold development company. Its focus is the development and restart of the Matilda Gold Project, located in the Wiluna gold district of Western Australia which has historically produced over 4Moz of gold. BLK's tenement package currently hosts a total Resource of 4.7Moz.
- Wiluna (~900km NE of Perth Western Australia) is at the northern end of the Norseman-Wiluna greenstone belt. The regional gold endowment is >40Moz, with deposits including some of Australia's largest and most long standing mines, including Jundee, Bronzewing, Agnew, Lawlers and Darlot.

**Figure 14: Regional location of the Matilda gold mine relevant to producing gold mines**



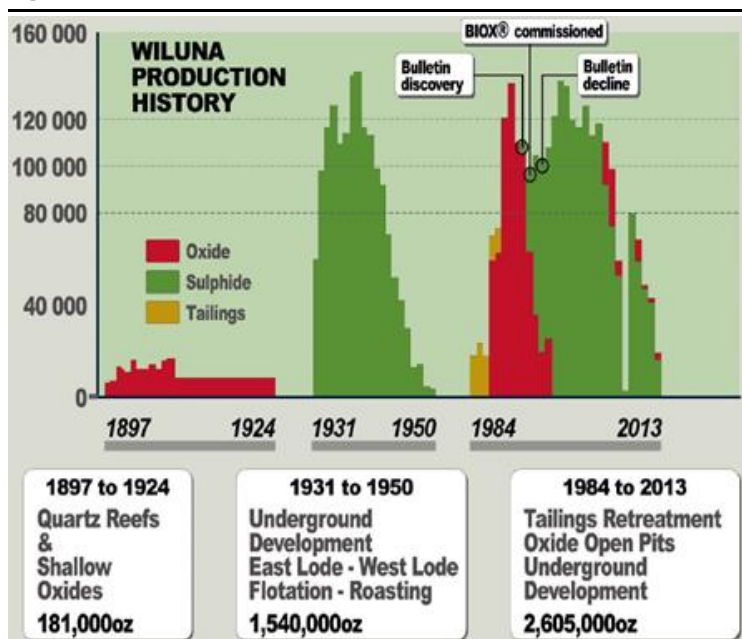
Source: Company Reports

- Gold was discovered at Wiluna in 1896, with mining continuing intermittently until 1950, producing a reported 2Moz, predominantly from the underground East and West Lodes. Modern production recommenced in 1984 via tailings retreatment, oxide open pit and later production from underground refractory lodes. Between 1993 and 2013 a further 2Moz was produced under various operators.
- Following a production hiatus, BLK purchased the Wiluna processing facility and surrounding tenements from the liquidator of Apex Resources, and thus consolidated the tenements for the first time in a decade. We highlight that Apex spent A\$71m on exploration at the assets.
- The project benefits from extensive existing infrastructure, including bitumen roads, all-weather airstrip and haul roads. On site there is an oxide processing plant with a 1.3Mtpa capacity and a BIOX processing plant with 850Kt capacity, both of which require refurbishment but represent a considerable capital saving as opposed to greenfield development. There is also a 350 person camp and tailing storage facilities which require minimal capital to re-establish.

## Matilda Gold Project

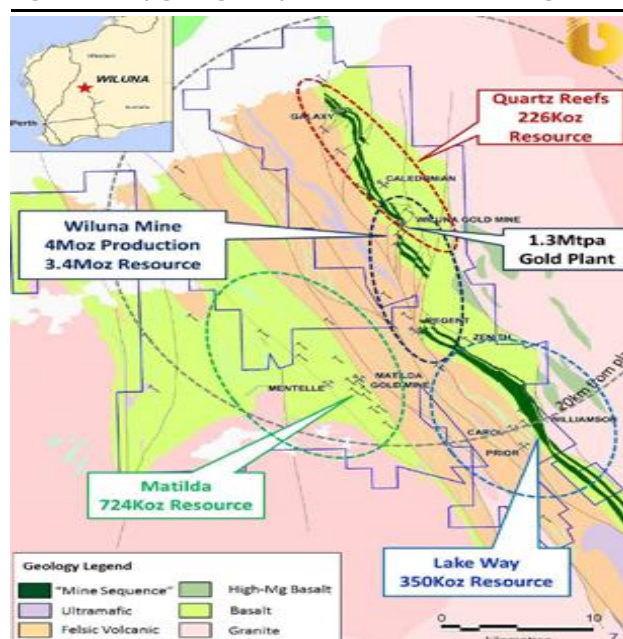
- Over the past 4 years, BLK has reassembled assets of the Matilda gold project by acquiring the Matilda mine and tenements for A\$1.4m and the Wiluna gold plant, mine and infrastructure for A\$2.4m upfront and A\$2.6m deferred consideration. This has reconsolidated the Wiluna Goldfield under a single company umbrella for the first time in 10 years. The project covers over 780km<sup>2</sup> of tenure with over 55 km strike of mine sequence geology. Production history is described in Figure 15.
- BLK has identified four distinct geological systems within the Matilda gold project. While there are multiple deposits within each system, BLK has broadly named the four systems Matilda, Quartz Reefs, Lake Way and the Wiluna Sulphides. Exploration and development strategies have targeted growing free milling and oxide resources, which to date has been successful in underwriting the first few years of gold production. The location of the four key domains can be seen in Figure 16; note that all are within 25km of the centralised gold processing facility at Wiluna.

Figure 15: Historic production profile from various ore sources



Source: Company Reports,

Figure 16: Key geological systems within the Matilda gold project



Source: Company Reports,

- The four geological systems described host Resources of ~4.6Moz of gold, with drill density (metres) correlating well with the resource size (Figure 17). BLK has focused its exploration efforts on the free milling systems (Matilda, Quartz reefs and Lake Way) with a view of delineating multiple years of ore supply from these sources.

Figure 17: Historic production stats and current resources for the four geological systems

	Historic Production	Resource (M+I+I)	Strike (kms)	Drill metres
Matilda	<200koz	724koz	7	246,000
Quartz reefs	<300koz	225koz	15	73,000
Lake Way	42koz	360koz	9	92,000
Wiluna sulphides	>4Moz	3.4Moz	7	1,350,000

Source: Canaccord Genuity estimates

Figure 18: Matilda Gold Project Resource Summary

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	0.2	2.1	13	7.4	1.8	426	5.3	1.7	285	12.9	1.8	724
Williamson Mine				3.3	1.6	170	3.8	1.6	190	7	1.6	360
Regent				0.7	2.7	61	3.1	2.1	210	3.9	2.2	270
Galaxy				0.4	3.0	38	0.4	2.2	28	0.8	2.6	66
Golden Age				0.4	4.5	62	0.7	3.5	88	1.1	4.4	150
Bulletin South OP				0.8	3.1	80	1.6	3.5	180	2.4	3.3	260
East Lode				1.0	5.2	170	2.3	4.7	340	3.3	4.8	510
West Lode				1.4	5.5	240	2.8	5.2	460	4.2	5.3	700
Henry 5 - Woodley - Bulletin Deepes				2.1	5.9	400	0.8	4.6	120	2.9	5.6	520
Burgundy - Calais				1.3	6.0	250	0.3	5.7	60	1.6	6.0	310
Happy Jack - Creek Shear				1.5	5.9	290	1.3	4.8	200	2.9	5.4	490
Other Wiluna Deposits				0.8	4.3	106	1.5	4.0	195	2.3	4.1	301
<b>Total</b>	<b>0.2</b>	<b>2.1</b>	<b>13</b>	<b>21</b>	<b>3.4</b>	<b>2,293</b>	<b>24</b>	<b>3.1</b>	<b>2,356</b>	<b>45</b>	<b>3.2</b>	<b>4,661</b>

Source: Company Reports

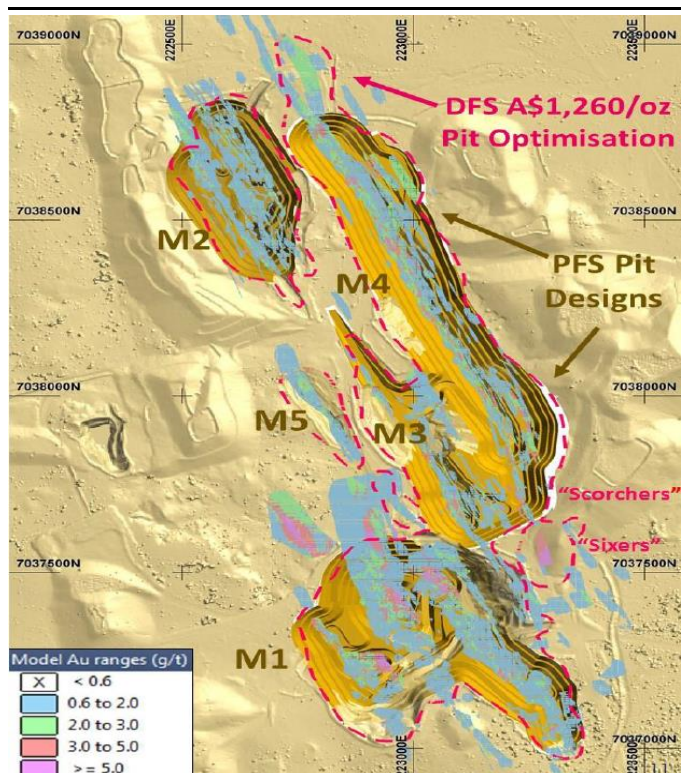
**Matilda – the base load ore supply**

- Matilda is a series of previously mined deposits that constituted the historical Mt Wilkinson mine. The asset was originally owned and operated by Chevron Exploration Corporation in the 1980s and Eon Resources in the early 1990s. Mineralisation is defined over 10km of strike along Coles Shear with historical works comprising a series of shallow pits down to an average depth of 50m over a strike length of 3.5km.
- Naming conventions for the pits are M1 through to M11 and mineralisation is open in both directions along strike with higher grade plunging lodes interpreted to be stacked in repetition. Newly discovered lodes appear to have strong and predictable structural controls, which in time may be further explored for underground production potential beyond the open pit life.
- Recent drilling has concentrated on improving resource confidence levels and testing for potential near mine extensions to pits optimized as part of the PFS. Key outcomes of the exploration program that we expect to impact the DFS favourably include:
  - Shallow mineralisation at Scorchers and Iceberg immediately north and south of the M4 pit have pushed out the DFS pit shells (pre-released) as seen in Figure 19.
  - Drilling at M3 and M1 South has pushed pits wider and deeper.



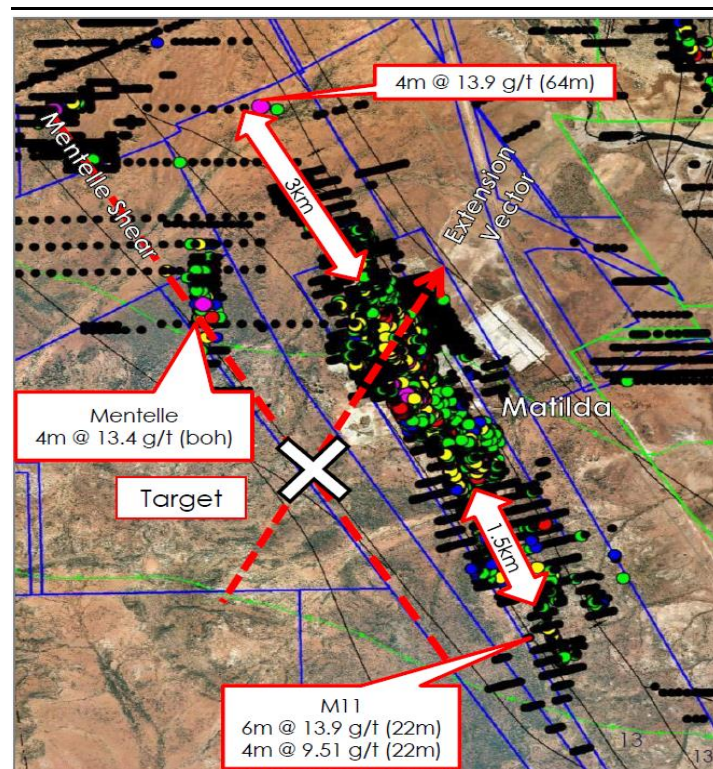
- Extensions to the M4 pit design (south and north) are now seeing mineralisation interplay with the neighbouring M3 and M1 pits. We see potential for ultimately merging the pits which would have favourable ramifications in terms of combined stripping ratios in this area and thus improving the economics of the Matilda orebodies.
- Conversion of Inferred resources into the Indicated and Measured category resultant of infill drilling conducted in the key areas of the M1, M3 and M4 mineralised trends.
- New resource at the M10 deposit of 739kt at 1.9g/t for 45,000oz Au. M10 is a new pit located approximately 1.5km south of the M4 pit and will likely be the first pit BLK mines as it provides shallow, deeply weathered, soft ore with up to 99% metallurgical recoveries.
- The majority of the Matilda ore is soft, deeply weathered oxide material that forms an important part of the production profile in the first 3 years. Matilda ore is planned to provide base load open pit feed to the plant with pre-released DFS metallurgical recoveries of 93% (PFS 88%) after gravity and 18 hours of leaching. This represents a 5% improvement on the PFS test work due to optimisation work focusing on higher cyanide dosing and dissolved oxygen levels. To optimise leaching residence time, BLK has indicated an extra leach tank will be installed within the Wiluna Oxide plant (~A\$2m).
- We also note that given the soft nature of the ore from Matilda, initial processing rates will be through both Mill 1 and 2 to average throughput rates well above nameplate at ~1.7Mtpa.

Figure 19: Matilda pits M1 to M5 (PFS v DFS optimisations)



Source: Company Reports,

Figure 20: Regional opportunities both parallel and along strike

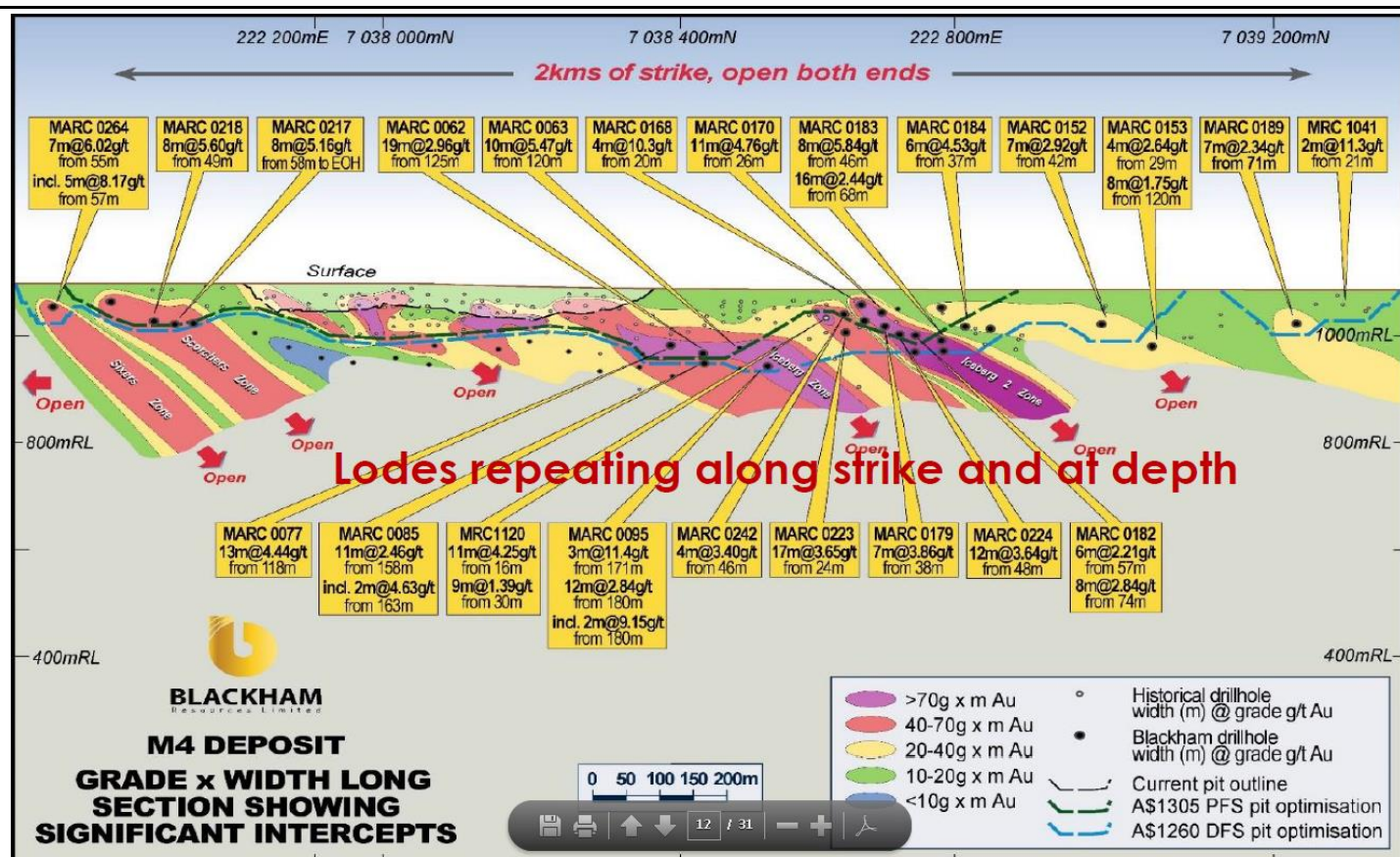


Source: Company Reports



- Regionally, historic drilling has identified mineralisation up to 3km from the previously mined area (Figure 19). Similarly, the Mentelle trend has been identified as potential parallel structure which has demonstrated mineralisation characteristics similar to Matilda, including a drill intersection of 4m at 13.4g/t. While not in the near-term exploration plan, BLK is mindful of the potential and plans to complete a large scale RAB program as funding becomes available.

Figure 21: Long section of the M4 pit (note the DFS pit shell optimisation at a A\$1260/oz gold price) – can see pdf toolbar in image



Source: Company Reports

### Quartz Reefs – high grade free milling sweeteners

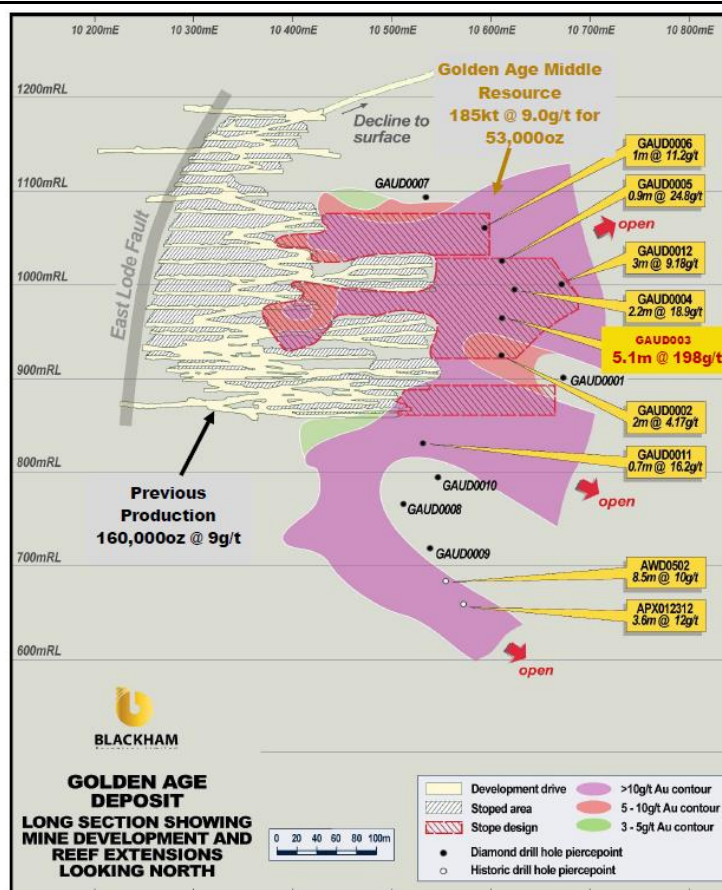
- BLK plans to supplement the base load open pit oxide feed with high grade free milling quartz lode material. There are several deposits of this nature with the most advanced being the Golden Age underground deposit and the Galaxy open pit. Currently, the Golden Age and Galaxy quartz reef resources have a combined resource of 1.85Mt at 3.6g/t for a total of 216koz (recently upgraded by 21%), and importantly 750kt at 4.1g/t for 99koz already sits in the Indicated category.

### Golden Age

- The Golden Age underground resource (1.1Mt at 4.4g/t for 150koz) is a relatively shallow deposit that has historically produced 160koz at 9g/t. Access to the orebody will be via the Bulletin decline, which is <3km from the processing plant.

- The Golden Age middle zone, where BLK intends to commence mining has a high grade resource of 185kt at 9g/t for 53koz, with the orebody sitting just off existing mining infrastructure allowing easy re-entry to this area of the mine. We note that the resource is constrained by a 100g/t top cut, which uncut increased the contained ounces to 90koz. Historically, the orebody has had a tendency to positively reconcile given the nuggetty nature of gold mineralisation, which could prove to be a bonus once in production. Metallurgical work on Golden Age ore has demonstrated recoveries of 93% after gravity and 12 hours leaching.
- BLK currently has a further 2,700m underground drill program underway testing extensions to the Golden Age orebody to the east along strike. The area is untested and we see good potential to add high grade ounces to the current resource. Figure 22 demonstrates the current stope design with key drill intercepts highlighted.
- BLK has indicated that the mining method will likely be a combination of bulk mining (open stoping) and selective (narrow vein via airleg). Given that multiple lenses will likely be mined, along with the ground conditions, and dilution factor (BLK mentioned grades ranging from 9 g/t to 5.5g/t are being internally modelled), we view the ultimate mining method as a key consideration to be finalised in the upcoming DFS.

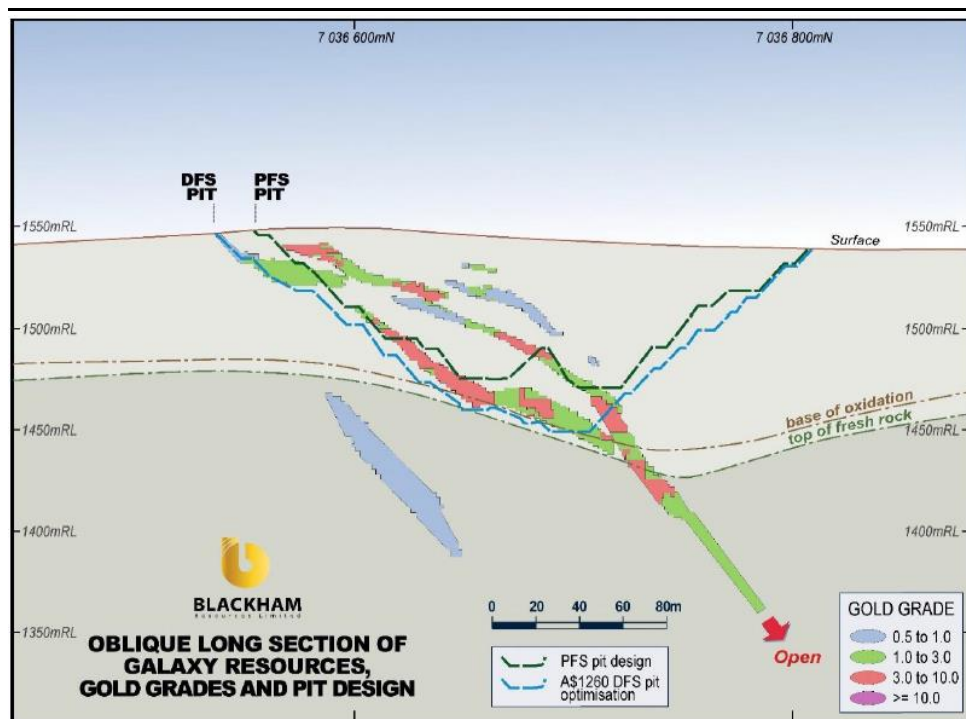
**Figure 22: Section view of the Golden Age middle zone with DFS mine stoping plan**



Source: Company Reports

**Galaxy**

- Galaxy is at the northern extent of the 15km quartz reef system including Golden Age, Republic, Brothers, Caledonia & Golden Age North. The recently updated Galaxy resource stands at 787kt @ 2.6g/t for 66koz (60% Indicated). BLK intends to mine the deposit via open pit methods with recent metallurgical studies indicating the ore as an attractive feed source for the Wiluna mill.
- Test work has indicated recoveries of 93-96% after gravity and 24 hours of leaching, which is consistent with the PFS test results of 96%. We do note, however, that DFS gravity results on the Galaxy ore are shown at 4% to 21% compared to PFS gravity recoveries that were as high as 82%. This likely relates to the presence of coarse gold in the orebody. Ultimately, BLK plans to introduce a gravity circuit to the mill as part of the refurbishment, which should add significantly to the Galaxy and other quartz reef processing recoveries.
- Figure 23 shows a section of the Galaxy pit shells following the updated resource. While the strip ratio looks high, we expect that at a diluted head grade of 2.9g/t (assumed mining inventory) the economics of the pit will stack up. Limited drilling exists below the pit and a follow up 800m RC program has commenced to begin testing Galaxy's potential as an underground mining target. Mineralisation is also interpreted to be open to the north-west which warrants further drilling.

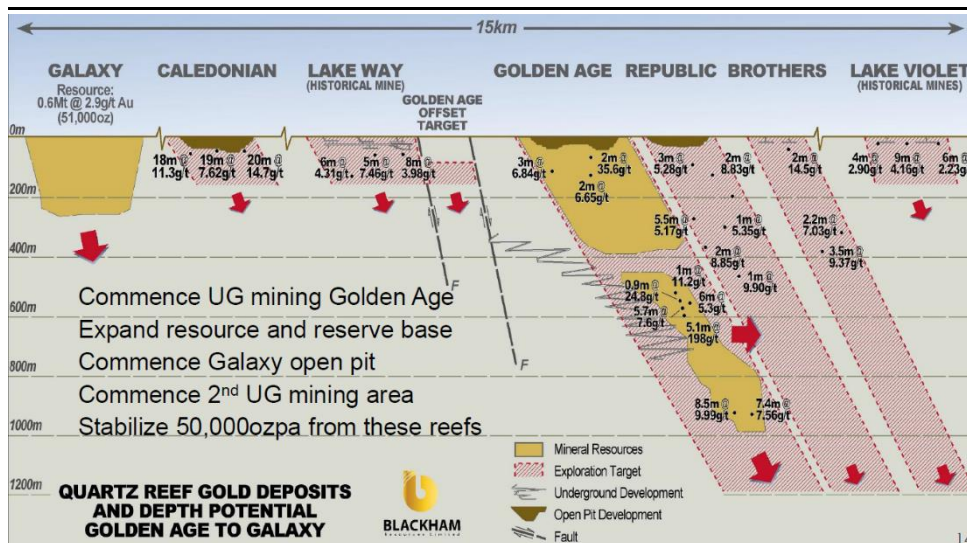
**Figure 23: Oblique section of the Galaxy open pit**

Source: Company Reports



**Other Quartz Reef Targets**

- Numerous other targets exist along the 15km Quartz reef trend. Key prospects for further drilling include Caledonian, Republic, Brothers and Lake Violet. Figure 24 highlights some of the high grade historic intersections that warrant follow-up drilling. Expanding the resource and reserve base of the Quartz Reef resource is a key objective of BLK, and the company has stated an aspirational goal of achieving stable production rates of ~50kozpa over the proposed life of mine plan.

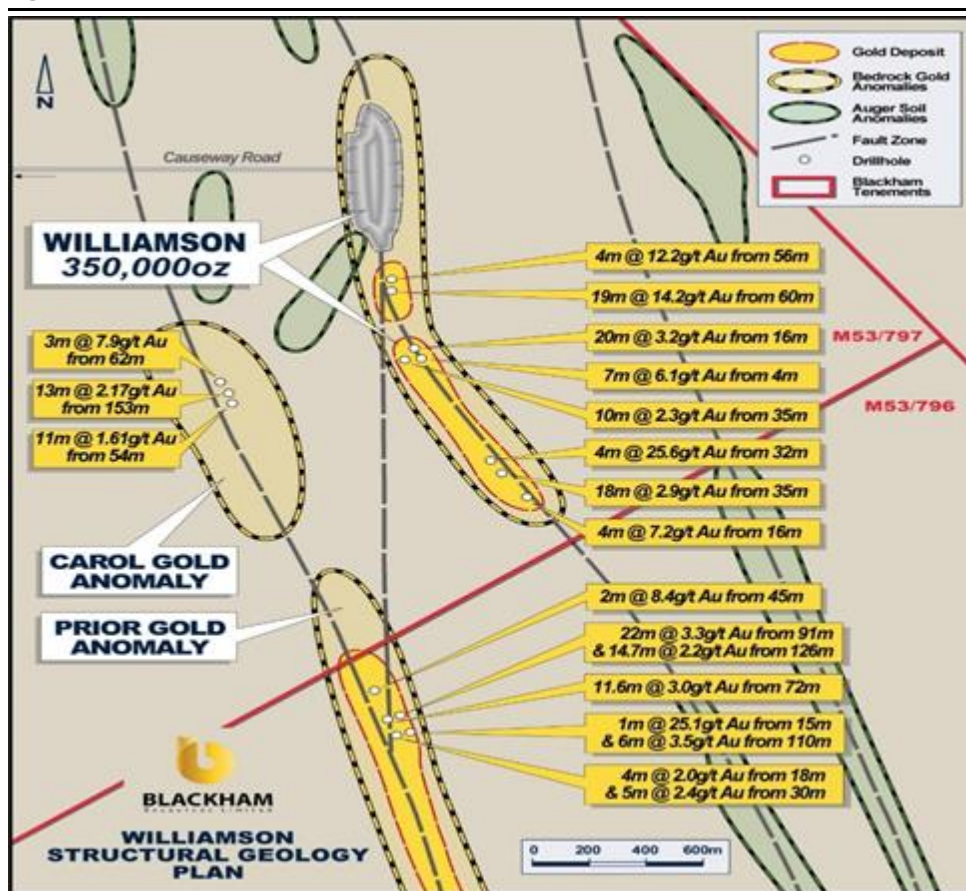
**Figure 24: Quartz Reef targets along a 15km strike**

Source: Company Reports

**Lake Way - Williamson**

- Lake Way is a large scale mineralised system, located ~25km south of the Wiluna mill. The Williamson deposit is its most advanced, having previously been mined by Agincourt from 2005-2006 and producing 660kt at 2.0g/t for 42koz. BLK recently upgraded the resource for Williamson to 7.1Mt at 1.6g/t for 360koz (171koz Indicated) following a diamond and RC program and expects the deposit to become an important base load ore supply in the medium term. As a wide lower grade system that is free milling the deposit, Williamson offers good optionality for base load ore supply outside of Matilda.
- Metallurgical test work on Williamson ore has confirmed its free milling nature with estimated recoveries of 95%. Oxide gravity results in the Williamson oxide has confirmed 65 -71% gravity recoveries and total recoveries of 98.3 to 99.5% after 24 hours of leaching.
- Williamson is part of the larger Lake Way system that includes the Carroll and Prior prospects on parallel linking structures. As shown in Figure 25, both parallel prospects have encouraging drill intersections that could potentially translate to large tonnage near surface mining options.
- BLK is nearing completion of a detailed ground-based gravity and seismic reflection survey over the Lake Way area with the aim of delineating additional Williamson-style deposits under the alluvial cover. We expect to see a number of targets identified subsequent to drill testing.

Figure 25: Plan view of the Williamson deposit with parallel structures Carol and Prior



Source: Company Reports

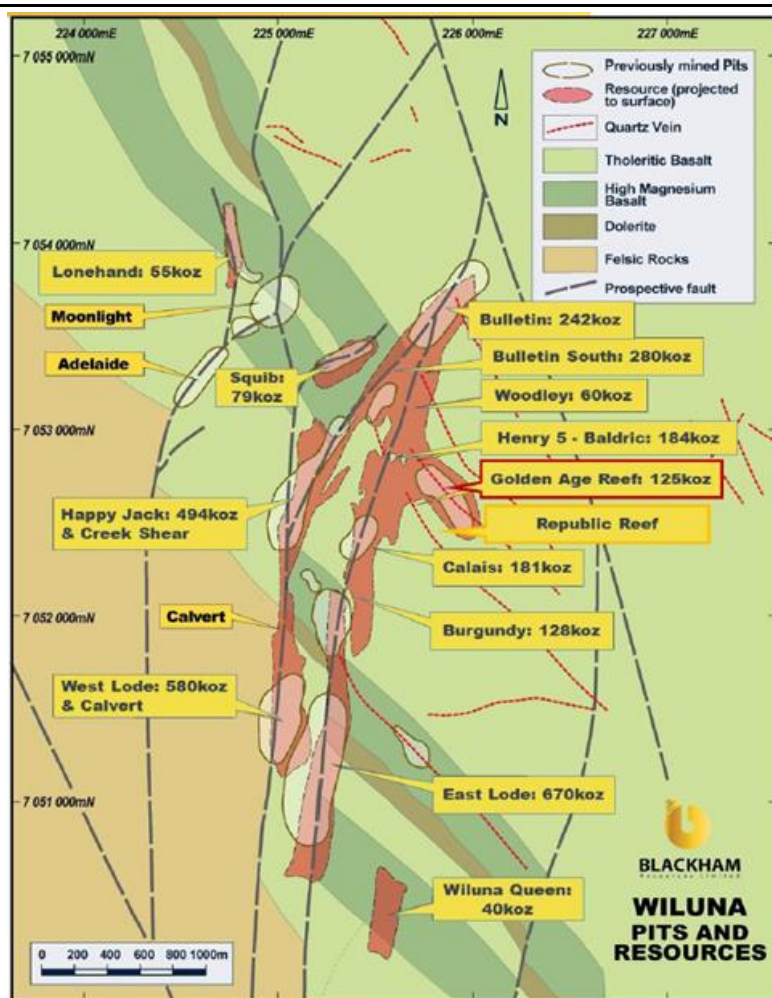
### Wiluna Sulphides

- Sulphide ore was the basis of the Wiluna mine from 1931 to 1950 when it was roasted to liberate the gold. Later, from 1994 to 2013, various owners used a BIOX process to liberate the gold. Sulphide resources comprise 72% of the company's overall resource base and while development and processing is not in the near-term plan, BLK will continue advancing the project in the background. The current total sulphide resource is 22Mt at 4.6g/t for 3.3Moz with 11Mt at 6.3g/t defined as an underground resource.
- The sulphide resources have been comprehensively drilled out (Apex Minerals spent +A\$70m) with 49% classified as Indicated. Positively, this offers good confidence in establishing an achievable mine plan. Historic recoveries (based on the last 20 years of production) averaged 83%.
- BLK has completed a PFS and mine design on the East/West lodes which demonstrated the potential for production of ~100kozpa at A\$1100/oz. Mining assumed long hole open stoping and we have used assumptions from the PFS as the basis for bulk of the production in years 4 and 5 of our model. Historically, the East/West lodes have produced 1.5Moz of gold with stopes up to 30m wide.
- BLK is also nearing completion of a DFS underground study on the Bulletin orebody which can leverage off existing underground infrastructure to re-establish production. BLK has flagged payback on development of the

Bulletin underground of only 4 months, which may ultimately see it come on line before production from the East/West lodes.

- In our view, timing on when production from the sulphides come on line is likely to change and is highly dependent on the ongoing success of the company's exploration program. At this stage, we assume production from the East/West underground beginning in year 4, which coincided with an assumed refurbishment of the BIOX circuit (CG estimate A\$10m refurbishment costs).
- BLK has also entered into a Memorandum of Understanding (MoU) with EcoTech Mining Limited (EcoTech) to optimise the metallurgical ore recoveries and processing costs through the existing Wiluna sulphide plant. Early stage testwork within EcoTech's pilot plant on a 3.0g/t sulphide sample showed Metallurgical recoveries up to 88% via a chlorination process.
- Historical recoveries through the flotation and BIOX plant under Apex Minerals tenure was 82% which compares to current recoveries in an analogous Biox circuit at Newmarket Gold's (NMI:TSX | Not rated) Fosterville plant of 89%.

**Figure 26: Plan view of the key Sulphide targets**



Source: Company Reports



## Risks

The risks below are inherent in the metals and mining industry and one or all could impact our valuation and therefore our SPECULATIVE BUY rating.

### Funding risk

- As stated in the Corporate and Finance section of this report, we view any significant delays or cost over runs may see the company need to access additional capital. While this does present some funding risk, considering the low level of gearing, we see no impediment to BLK accessing additional funding via an extension to the existing facility or through a new debt arrangements. Further, we can make no assurances that accessing capital won't be done without further dilution to shareholders.

### Exploration risks

- Exploration is subject to a number of risks and can require a high rate of capital expenditure. Risks can also be associated with conversion of Inferred resources and lack of accuracy in the interpretation of geochemical, geophysical, drilling and other data. No assurances can be given that exploration will delineate further minable reserves.

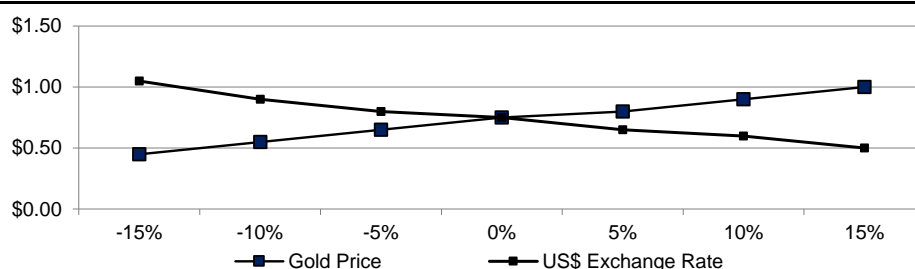
### Operating risks

- Once in production, the company will be subject to risks such as plant/equipment breakdowns, metallurgical, scheduling and other technical issues. Any increase in costs from those outlines in the PFS could reduce the profitability and free cash generation from the operating assets considerably and negatively impact our valuation. Further, the actual characteristics of an ore deposit may differ significantly from initial interpretations which could also materially impact forecast gold production from original expectations.

### Commodity price and currency fluctuations

- As with any mining company, BLK is directly exposed to commodity price and currency fluctuations. Commodity price fluctuations are driven by many macroeconomic forces including inflationary pressures, interest rates and supply and demand of commodities. These factors could reduce the profitability, costing and prospective outlook for the business. A sensitivity analysis to these key inputs is demonstrated in Figure 27.

Figure 27: Valuation sensitivity analysis



Source: Company Reports, Canaccord Genuity estimates

## Appendix: Important Disclosures

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### Target Price / Valuation Methodology:

Blackham Resources Limited - BLK

We base our valuation on a DCF analysis (NPV10%) of the Matilda gold project.

### Risks to achieving Target Price / Valuation:

Blackham Resources Limited - BLK

Funding risk

- As stated in the Corporate and Finance section of this report, we view any significant delays or cost over runs may see the company need to access additional capital. While this does present some funding risk, considering the low level of gearing, we see no impediment to BLK accessing additional funding via an extension to the existing facility or through a new debt arrangements. Further, we can make no assurances that accessing capital won't be done without further dilution to shareholders.

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#### Global Stock Ratings (as of 02/21/16)

Rating	Coverage Universe		IB Clients
	#	%	%
Buy	567	62.24%	31.57%
Hold	256	28.10%	12.50%
Sell	26	2.85%	3.85%
Speculative Buy	62	6.81%	59.68%
	911*	100.0%	

\*Total includes stocks that are Under Review

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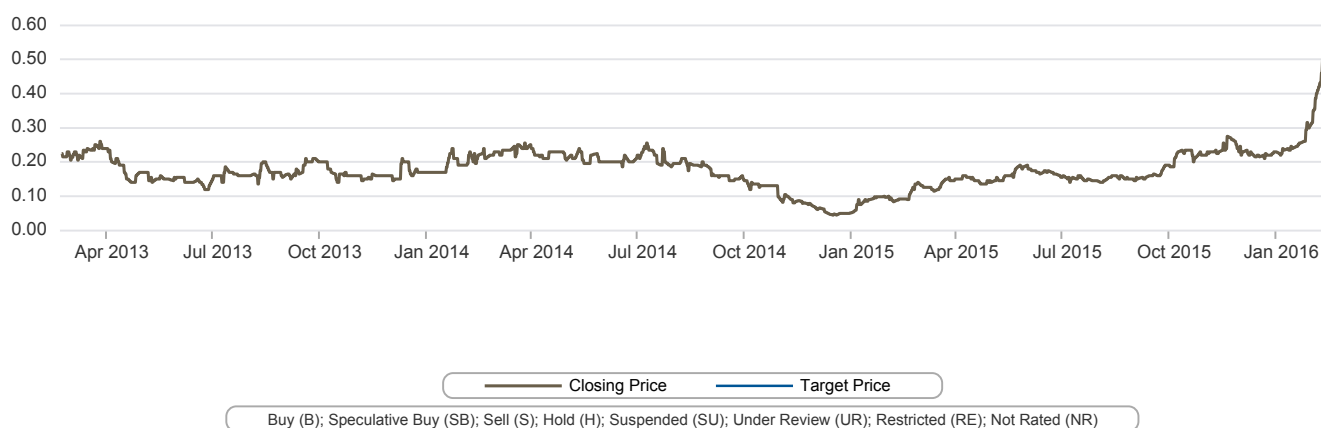
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**Blackham Resources Limited Rating History as of 02/18/2016**



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