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# Breaker Resources NL (BRB)

## Drilling and metallurgical testing further de-risk Lake Roe

### Recommendation

**Buy** (unchanged)

### Price

**\$0.65**

### Valuation

**\$1.30** (unchanged)

### Risk

**Speculative**

### GICS Sector

Materials

### Expected Return

Capital growth	100.0%
Dividend yield	0.0%
Total expected return	100.0%

### Company Data & Ratios

Enterprise value	\$78.8.0m
Market cap	\$94.3m
Issued capital	145.1m
Free float	85%
Avg. daily val. (52wk)	\$226,319
12 month price range	\$0.45-\$0.80

### Price Performance

	(1m)	(3m)	(12m)
Price (A\$)	0.55	0.72	0.50
Absolute (%)	19.3	-9.1	30.0
Rel market (%)	19.0	-13.1	25.4

### Absolute Price



SOURCE: IRESS

### Drilling returns more strong results

BRB has continued to advance its 100%-owned Lake Roe gold project, 100km east of Kalgoorlie in WA. The ninth round of diamond and RC resource drilling continues to return broad, high grade, near surface gold intersections, show **further strike potential at depth** with high grade intersections in fresh rock at the southern end of the discovery zone and new intersections which **extend the width** of the main discovery zone to the east. Highlight results include: 9m @ 35.9g/t Au from 131m; 20m @ 3.5g/t Au from 187m; 36m @ 2.8g/t Au from 8m; 24m @ 3.1g/t Au from 36m and 32m @ 2.6g/t Au from 20m. Broadly speaking, these results appear to further expand the mineralisation envelope for a potential Resource, point to a deeper potential open-pit operation and remain consistent with our investment thesis of Lake Roe having the potential to host a significant, multi-million ounce, greenfields gold discovery.

### Second round of met tests point to +96% gold recoveries

A second round of metallurgical testing has also been completed and has confirmed the high gravity recoverable gold and high conventional processing recoveries of the first round of tests. In addition, first pass grind size optimisation has also now been completed and points to a relatively coarse 106-125µm – a key factor for low energy consumption and hence operating costs. This was an important aspect missing from the first round of tests and for us it **confirms a very positive suite of metallurgical test results and a major de-risking milestone**. The excellent results for total gold recovery were achieved in both oxide material (96%-99%) and fresh rock (97%-99%).

### Investigation of a staged development scenario

With high gravity gold recoveries of 31%-77% in oxide ore, 32%-90% in fresh ore and a coarse grind size, BRB will assess a staged development scenario. This would involve the construction of the 'front-end' of a conventional processing plant, i.e.: the crushing circuit, grinding circuit and gravity recovery circuit. Tails from the gravity circuit (which would normally flow to the leach circuit and 'back-end' of the plant) would flow to storage ponds. They would then be processed once construction of the entire plant was complete. The objective would be to eliminate debt funding requirements and minimise equity dilution by funding as much as possible from early cash flow.

### Investment thesis – Buy (Speculative), valuation \$1.30/sh

The latest drilling and metallurgical test work results further de-risk the commercialisation of the Lake Roe gold project and remain consistent with our investment thesis for a significant greenfields gold discovery. The maiden Resource is on track for release towards the end of the March quarter and drilling will continue beyond that. We would expect the Resource to continue to grow beyond the maiden Resource. Our valuation (rounded to nearest 5c) is unchanged at \$1.30/sh and we retain our Buy (Speculative) recommendation on what we view as a unique and compelling gold discovery and development story.

## Drilling returns more strong results

Highlight results include:

- 9m @ 35.9g/t Au from 131m (BBRD0675);
- 20m @ 3.5g/t Au from 187m (BBRC0708);
- 36m @ 2.8g/t Au from 8m (BBRC0694);
- 24m @ 3.1g/t Au from 36m (BBRC0689); and
- 32m @ 2.6g/t Au from 20m (BBRC0577).

Broadly speaking, these results appear to further expand the mineralisation envelope for a potential Resource, point to a deeper potential open-pit operation and remain consistent with our investment thesis of Lake Roe having the potential to host a significant, multi-million ounce, greenfields gold discovery.

### Updated long section

In our review of the updated long-section, the latest drilling results (new holes in red) show previously identified high grade trends along plunge being reinforced and extended.

**DETAIL**

BBRC0079 41/0.81  
BBRC0576 44/1.38  
BBRC0194 33/1.87  
BBRC0145 32/1.67  
BBRC0110 27/3.86  
BBRC0267 9/5.19  
BBRC0264 42/1.95  
BBRC0449 29/1.39  
BBRC0268 20/3.51  
BBRC0450 10/3.36  
BBRC0273 17/2.21  
BBRC0444 44/1.04  
BBRC0468 4/8.87  
BBRC0057 11/3.11  
BBRC0285 11/3.19  
BBRC0288 25/3.54  
BBRC0482 28/1.15 & 10/2.97  
BBRC0487 16/7.76  
BBRC0295 32/1.67  
BBRC0656 10/5.42  
BBRC0297 27/6.25  
BBRC0049 18/2.97  
BBRC0147 3/12.59  
BBRC0194 18/3.65  
BBRC0502 3/8.79  
BBRC0195 9/4.90  
BBDD0016 45/2.29  
BBDD0006 22/1.55  
BBRC0189 12/7.07  
BBRC0190 10/6.10  
BBRC0111 19/7.56  
BBDD0031 7.92/6.55  
BBRC0269 10/6.67  
BBRC0450 16/2.34  
BBRC0452 20/2.82  
BBRD0056 8/5.25  
BBRC0443 22/1.88  
BBRC0457 6/14.06  
BBRD0671 1.83/17.57  
BBDD0040 1/33.68  
BBRC0470 6/7.12  
BBRC0463 18/2.19  
BBRD0448 5/7.90  
BBRD0675 9/35.88  
BBRC0050 18/2.16  
BBRC0698 20/2.16  
BBRC0683 20/1.59

Surface

-100 m

-200 m

6 602 000 N

6 602 200 N

**BOMBORA long-section**

Gram x metre intercepts (0.20 g/t cutoff, at Northing-RL location)

> 30.0 13.0 - 30.0 6.5 - 13.0 3.1 - 6.5

new steep lode in hanging wall of known mineralisation

SOURCE: COMPANY DATA, BELL POTTER SECURITIES ESTIMATES

The drilling shown in Figure 1 is on 40m line spacings (and in some cases 20m), offering a fairly detailed view. We point out that the coloured dots (gram metre intercepts, i.e. 13 is representative of 1m @ 13g/t Au equivalent or, say, 2m @ 6.5g/t Au, etc.) are a measure of contained gold.

We would suggest that:

- the **green dots** are indicative of very good **open-pit mining** potential;
- the **orange dots** would be sufficient to **carry underground mining** costs, plus a good margin; and
- the **red dots** and **purple dots** offer increasingly **strong underground operating margins**.

For a project that is in a Resource drill-out stage these are excellent results, in our view. At this stage, drilling is being undertaken on a “blind” infill pattern. However, as drilling density increases and structural controls become better understood, drilling will be able to follow and define the deposit more accurately.

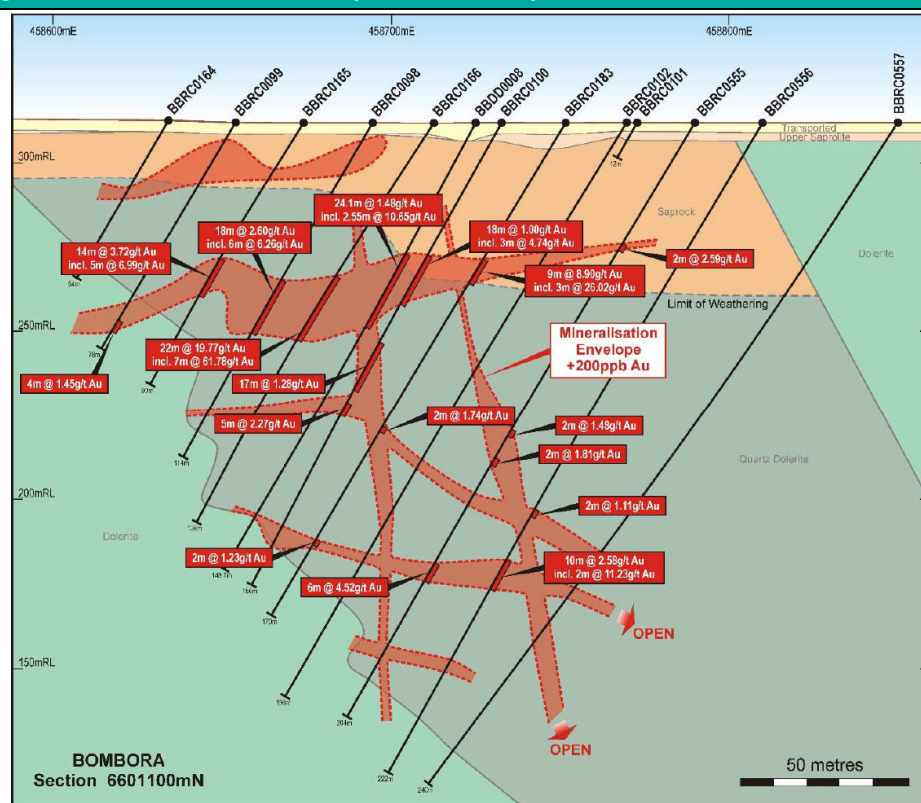
### Cross-sections released to date

BRB commenced infill / Resource drilling in February 2017 and by our count has released five cross-sections to date, having been updated with the 10 January release and the 23 November release. We have included the latest versions of them all on the following pages.

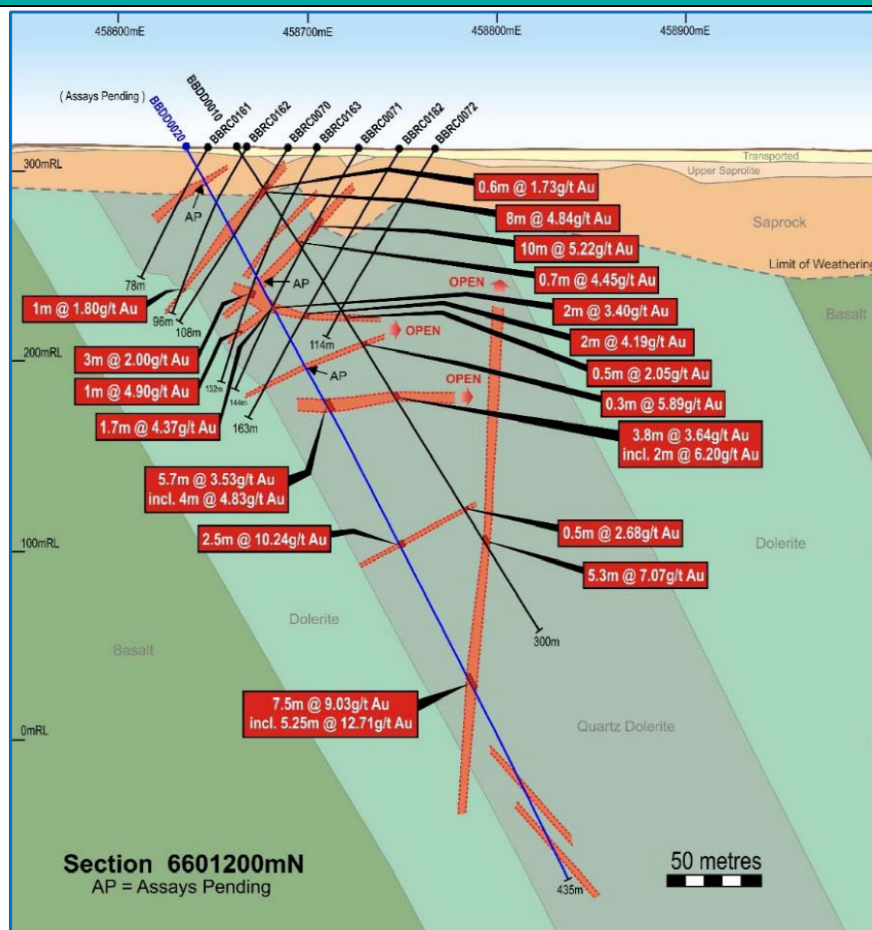
The latest drilling results include intersections that increase the width of the current discovery zone to the east. Diamond hole BBRD0553 (not shown in these sections but 100m north of the 1200mN section) drilled in the central zone of the Bombora discovery (~6601300mN, 45880mE) was collared ~100m east of previous drilling and intersected multiple lodes of **9.3m @ 3.2g/t Au** from 201m and **13.3m @ 1.5g/t from 214.7m**.

Other points to note in the cross-sections include:

- multiple lode geometries: while these look complex, the key is a degree of consistency and continuity which in our view is apparent, particularly in the context of the high grade trends along plunge becoming evident in the long-section;
- good correlations between RC and diamond drilling results on sections 1100mN (BBDD0008 and BBRC0100), 1700mN (BBDD0031 and BBRC0111 and BBDD0006) and 1840mN (BBRD0459 and BBRC0443); and
- Numerous good grade intersections in fresh rock at depth, indicating mineralisation continues down dip and remains open and is indicative of a large primary gold system.

**Figure 2 – Cross section ~1100mN, updated 10 January 2018**

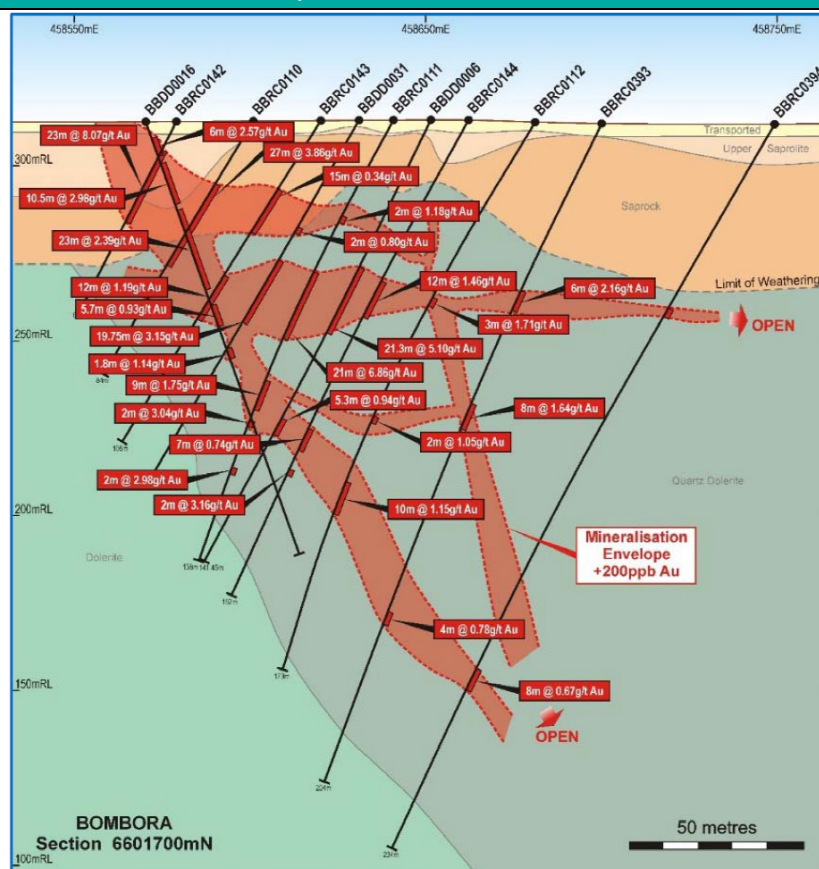
SOURCE: COMPANY DATA

**Figure 3 - Cross section ~1200mN, updated 23 November 2017 (note smaller scale)**

SOURCE: COMPANY DATA

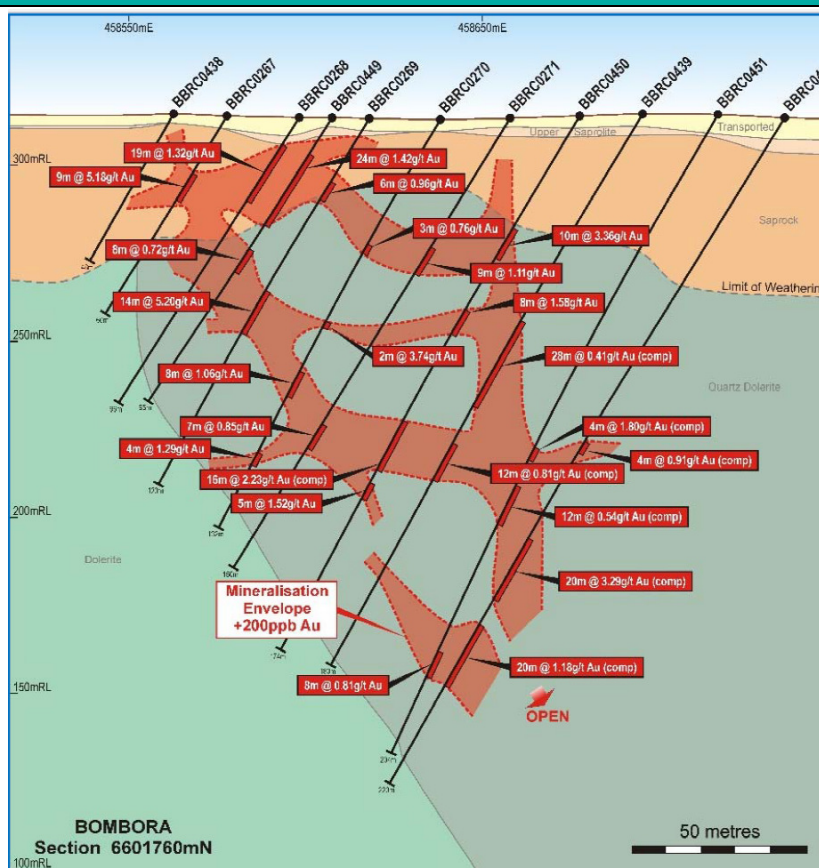


Figure 4 - Cross section ~1700mN, updated 23 November 2017



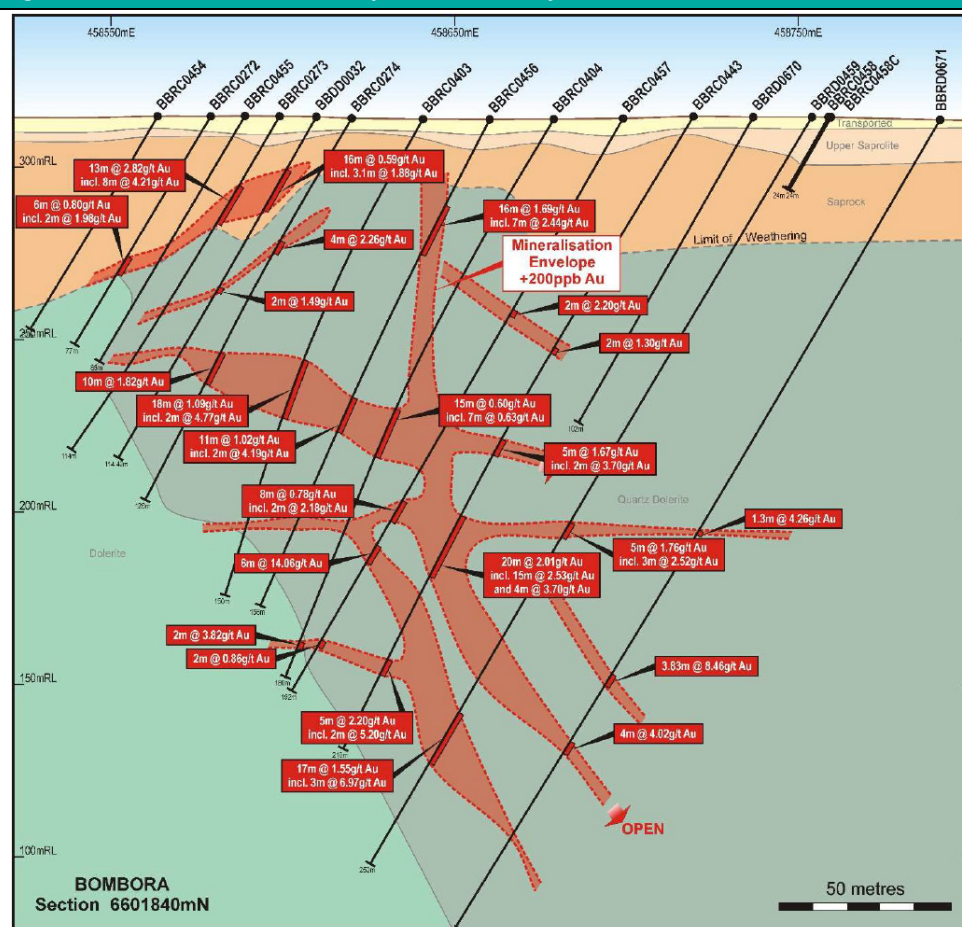
SOURCE: COMPANY DATA

Figure 5 - Cross section ~1760mN, updated 23 November 2017



SOURCE: COMPANY DATA

Figure 6 - Cross section ~1840mN, updated 10 January 2018



SOURCE: COMPANY DATA

## Second round of met tests point to +96% gold recoveries

A second round of metallurgical testing has also been completed, assessing:

1. gravity and leach gold extraction of three oxide RC composite samples and three fresh (primary) RC composite samples;
2. gravity and leach gold extraction of "horizontal" composites of the oxide and fresh RC material above; and
3. optimal ore grind size and gravity and leach gold recovery using three different size fractions of diamond drilled oxide and fresh mineralisation .

The excellent results for total gold recovery were achieved in both oxide material (96%-99%) and fresh rock (97%-99%) as summarised in the table below:

Table 1 - Lake Roe metallurgical test work result summary

	Grind Size*	40 - 63 µm	40 µm	75 µm	106 µm	150 µm
		Individual RC Composite (x8**)	"Horizontal" RC Composites (x1**)	Ground Diamond Core (x1)****		
Total Gold Recovery %***	Oxide	97.4	98.8	96.2	96.2	95.4
	Fresh	97.4	97.7	99.1	99.2	99.0
Gravity Gold Recovery %***	Oxide	35.6	77.8	33.7	31.3	27.1
	Fresh	43.2	32.4	90.8	89.9	85.7

\* size at which 80% passes (P80) \*\* number of samples \*\*\* average values \*\*\*\* Direct Leach

SOURCE: COMPANY DATA

Overall, the test has confirmed the high gravity recoverable gold and high conventional leaching recoveries of the first round of tests.

In addition, first pass grind size optimisation has also been completed and points to a relatively coarse 106-125µm grind being applicable – a key factor for low energy consumption and hence low operating costs. This was an important aspect missing from the first round of tests and for us it confirms a very positive suite of metallurgical test results, the non-refractory nature of the ore and is a major de-risking milestone.

Further findings from the program included:

- Gravity recoverable gold from the composite samples averaged 35% in the oxide material (range 27%-78%) and 43% in the fresh material (range 32%-91%);
- moderate abrasion and work indices pointing to modest energy consumption and modest requirement for grinding media of ~1.5kg/t ore when milling fresh material and less when treating oxide/transition ore resulting in lower operating costs;
- the ore is also relatively soft and may be amenable to SAG milling;
- An upper lime consumption rate of 1.6 kg/t for some oxide/transition ores compared with 0.55kg/t for fresh ore;
- Cyanide consumption data for coarser ore grind sizes suggest an upper figure may be ~ 0.4kg/t; and
- an almost insignificant requirement for oxygen by both ore types, likely negating the need for the inclusion of an oxygen plant, resulting in lower CAPEX.

These results indicate that it would be possible for BRB is to pursue a low CAPEX, staged development scenario whereby significant early cash flows could be generated from gravity recoverable gold.

This would involve the construction of the 'front-end' of a conventional processing plant, i.e.: the crushing circuit, grinding circuit and gravity recovery circuit. Tails from the gravity circuit (which would normally flow to the leach circuit and 'back-end' of the plant) would flow to storage ponds. They would then be processed once construction of the entire plant was complete.

The objective would be to eliminate debt funding requirements and minimise equity dilution by funding as much as possible from early cash flow.

# Breaker Resources NL (BRB)

## Company description

Breaker Resources NL (BRB) is an Australian domiciled, Perth based gold exploration company. The company was listed in April 2012, raising \$8.5m at \$0.20/sh, with the objective of applying modern, systematic exploration techniques to the largely under-explored Eastern Goldfields Superterrane (EGST) of Western Australia.

BRB's flagship asset and prime focus is its 100%-owned Lake Roe Gold Project located 100km east of Kalgoorlie, 60km south-southeast of the operating 3.5Moz Carosue Dam gold mine, and 35km north of the historic 0.9Moz Karonie gold deposit. The project comprises five granted tenements and one application with an overall area of 556km<sup>2</sup>.

Wide spaced reconnaissance drilling has delineated a large scale gold anomaly over 6km of strike. This includes the Bombora discovery which extends over a continuous strike length of 2.2km, is open to the south with indications of further mineralisation to the north. Resource drilling commenced in February 2017 and a maiden Resource is expected to be released in 1QCY18. We believe that BRB represents a unique opportunity in the landscape for Australian gold assets and its Lake Roe gold project may well emerge as one of the landmark discoveries of the current decade.

## Investment thesis – Buy (Speculative), valuation \$1.30/sh

The latest drilling and metallurgical test work results further de-risk the commercialisation of the Lake Roe gold project and remain consistent with our investment thesis for a significant greenfields gold discovery. The maiden Resource is on track for release towards the end of the March quarter and drilling will continue beyond that. We would expect the Resource to continue to grow beyond the maiden Resource. Our valuation (rounded to nearest 5c) is unchanged at \$1.30/sh and we retain our Buy (Speculative) recommendation on what we view as a unique and compelling gold discovery and development story.

## Valuation – peer comparison

BRB is a gold exploration company whose main asset is its 100% owned Lake Roe Gold Project. This project is at an advanced stage of exploration but remains pre-Resource and as a result an NPV-based valuation of even a notional project is not meaningful. We also cannot apply an EV/Resource ounce metric (although we have used it to benchmark market expectations). This does make valuation problematic and, quite frankly, somewhat subjective.

However, in reviewing the extensive drilling completed to date, the comparison of the potential scale of the Lake Roe project with other similar deposits and the valuations of corporate peers at points in their development where we envisage BRB to be in the next 12 months we have formed a view on its valuation.

Our valuation therefore comprises:

- zero NPV-based value for even notional project parameters;
- \$200m valuation for BRB's main exploration asset, Lake Roe, based on market valuations achieved by corporate peers Dacian Gold (DCN) and Gold Road (GOR) upon, or in the period following, key Resource announcements. The market capitalisations of both these companies met or exceeded this level in market conditions characterised by much lower valuations than currently, particularly for GOR, when the ASX Gold Index (XGD) was trading at less than half the current levels;



- A DCF valuation of corporate overheads, assumed at current expenditure rates for the next three years;
- BRB's last reported net cash position; and
- Dilution for in-the-money options and an assumed equity raise of \$8.0m at \$0.65/sh in the coming 12 months.

**Table 2 - BRB valuation summary**

<b>Ordinary shares (m)</b>		<b>145.1</b>
Options in the money (m)		13.8
Assumed equity raise (m)		12.3
<b>Diluted m</b>		<b>171.2</b>
<b>Sum-of-the-parts</b>		
	<b>\$m</b>	<b>\$/sh</b>
Project (unrisked NPV10)	-	-
Other exploration	200.0	1.38
Corporate overheads	(2.7)	(0.02)
Subtotal	197.3	1.36
Net cash (debt)	15.5	0.11
<b>Total (undiluted)</b>	<b>212.9</b>	<b>1.47</b>
Cash from options	4.7	@ 0.35
Assumed equity raise	8.0	@ 0.65
<b>Total (fully diluted)</b>	<b>225.6</b>	<b>1.32</b>

SOURCE: BELL POTTER SECURITIES ESTIMATES

With upside of 100% from the last closing share price to our valuation, we retain our Buy recommendation (Speculative risk rating) in conformity with our ratings structure.

The latest capital structure is summarised below:

**Table 3 - BRB capital structure summary**

Shares on issue	m	145.1
Performance shares / other	m	0.0
<b>Total shares on issue</b>	<b>m</b>	<b>145.1</b>
<b>Share price</b>	<b>\$/sh</b>	<b>0.650</b>
Market capitalisation	\$m	94.3
Net cash	\$m	15.5
<b>Enterprise value (undiluted)</b>	<b>\$m</b>	<b>78.8</b>
Options outstanding (m)	m	14.3
Options (in the money)	m	13.8
Issued shares (diluted for options)	m	158.9
Market capitalisation (diluted)	m	103.3
Net cash + options	\$m	20.2
<b>Enterprise value (diluted)</b>	<b>\$m</b>	<b>83.1</b>

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

## Top shareholders

BRB's largest shareholder is Executive Chairman, Tom Sanders, who has an interest of 21.1m shares (14.5% of issued capital). Institutional presence on the register is light, with Gold 2000, a specialist resource sector fund, just below substantial holdings.

**Table 4 - BRB top shareholders**

<b>Shareholder</b>	<b>%</b>	<b>m</b>
TS&H Sanders	14.5%	21.1
Kurraba Investments	3.4%	5.0
Gold 2000	3.4%	5.0

SOURCE: IRESS, COMPANY REPORTS

# Resource sector risks

Risks to BRB include, but are not limited to:

- **Funding and capital management risks.** Funding and capital management risks can include access to debt and equity finance, maintaining covenants on debt finance, managing dividend payments and managing debt repayments. As an exploration company with no sales revenues, BRB is reliant on access to equity markets and debt financing to fund the advancement and development of its projects.
- **Operating and development risks.** Mining companies' assets are subject to risks associated with their permitting, development and operation. Risks for each company may relate to geological, mining and metallurgical performance vs design. These can be heightened depending on method of operation (e.g. underground versus open pit mining) or whether it is a single mine company. Construction and development of mining assets may be subject to approvals timelines, receipt of permits, weather events, access to skilled labour and technical personnel, as well as key material inputs and mechanical components which may cause delays to construction, commissioning and commercial production.
- **Operating and capital cost fluctuations.** Markets for exploration, development and mining inputs can fluctuate widely and cause significant differences between planned and actual operating and capital costs. Key operating costs are linked to energy and labour costs as well as access to, and availability of, technical skills, operating equipment and consumables.
- **Commodity price and exchange rate fluctuations.** The future earnings and valuations of exploration, development and operating resources companies are subject to fluctuations in underlying commodity prices and foreign currency exchange rates. As most metal prices are denominated in US dollars, their translation into Australian dollars are affected by fluctuations in the value of the Australian dollar. Commodity price and foreign exchange rate outcomes may be different from our forecasts.
- **Resource growth and mine life extensions.** The viability of future operations and earnings forecasts and valuations reliant upon them may depend upon resource and reserve growth to extend mine lives. Exploration success is dependent upon a wide range of factors and can deliver a wide range of results. Even once Reserves have been calculated, their economic viability remains dependent upon actual commodity prices, mining performance and inputs to operating costs.
- **Regulatory changes risks.** Changes to the regulation of infrastructure and taxation (among other things) can impact the earnings and valuation of mining companies. BRB's key assets are located in Australia, in the State of Western Australia, a politically and socially stable jurisdiction. However changes to business conditions and government policies can and have occurred, with potential for adverse impacts on the economic and social viability of BRB's operations.
- **Corporate/M&A risks.** Risks associated with M&A activity include differences between the entity's and the market's perception of value associated with completed transactions, the actual performance of an acquired asset vs its expected performance as assessed by the acquiror and the timing of an acquisition may all have a material impact on the value attributed by the market to that acquisition.

**Recommendation structure**

**Buy:** Expect >15% total return on a 12 month view. For stocks regarded as 'Speculative' a return of >30% is expected.

**Hold:** Expect total return between -5% and 15% on a 12 month view

**Sell:** Expect <-5% total return on a 12 month view

*Speculative Investments are either start-up enterprises with nil or only prospective operations or recently commenced operations with only forecast cash flows, or companies that have commenced operations or have been in operation for some time but have only forecast cash flows and/or a stressed balance sheet.*

*Such investments may carry an exceptionally high level of capital risk and volatility of returns.*

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The stocks of resource companies without revenue streams from product sales should always be regarded as speculative in character. Since most exploration companies fit this description, the speculative designation applies to all exploration stocks. Stocks with 'Speculative' designation are prone to high volatility in share price movements. Exploration and regulatory risks are inherent in exploration stocks. Exploration companies engage in exploration programs that usually have multiple phases to them where positive results at some stages are not indicative of ultimate exploration success and even after exploration success, there is often insufficient economic justification to warrant development of an extractive operation and there is still significant risk that even a development project with favourable economic parameters and forecast outcomes may fail to achieve those outcomes. Investors are advised to be cognisant of these risks before buying such a stock as BRB.

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