

# Exceptional metallurgy results highlight potential for early cashflow opportunity and low ongoing production costs

**In light of these results, Breaker plans to initiate studies on a low-cost gravity-based production start-up option which would generate cashflow while resource drilling continues**

## Highlights

- ✘ Metallurgical tests on ore from the Lake Roe gold project near Kalgoorlie in WA return outstanding results, providing more strong evidence of the project's economic prospects
- ✘ The results show the ore is suited to preparation using a conventional crushing and ball milling circuit with modest energy consumption and an indicative optimum grind size of 106 to 125 microns
- ✘ Fresh ore gold recoveries of 97% to 99%; Oxide gold recoveries of 96% to 99%
- ✘ Gravity gold recoveries of 31%-77% in oxide ore and 32%-90% in fresh ore with no obvious correlation with gold grade

	Grind Size*	40 - 63 µm Individual RC Composite (x8**)	40 µm "Horizontal" RC Composites (x1**)	75 µm	106 µm	150 µm
				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

- ✘ Testwork confirms rapid leach kinetics, low reagent requirements and minimal oxygen demand by oxide or fresh ore types
- ✘ No outliers in metallurgical performance were detected in individual or composite samples of oxide and primary ore samples which extend over a 1km zone from 6601080N to 6602120N

Breaker Resources NL (ASX: BRB; **Breaker** or **the Company**) is pleased to report the completion of its pre-resource metallurgical testwork program on ore samples from the Company's 100%-owned Lake Roe gold project, 100km east of Kalgoorlie in WA. The program extends the scope of initial testwork reported in October 2017.

The work included gold extraction testing of reverse circulation (**RC**) chip samples over an extended area (Figures 1 and 2), assessment of ore grind size on gold extraction and further assessment of gold leach reagent and oxygen requirements.

Breaker's Executive Chairman, Mr Tom Sanders, said the results were very significant because they continued to point to the strong economic outlook for Lake Roe, including the potential for a low-cost starter project which would generate early cashflow.

"These results significantly de-risk the Lake Roe project and point towards low processing (gold recovery) costs without any significant issues identified in either the fresh or oxide ore," Mr Sanders said.

"Importantly, the high content of gravity-recoverable gold presents a potential low-cost development start-up option that could be of great benefit to shareholders and which we intend to assess.

"This possibility involves a staged development scenario consisting initially of the setup of crushing, grinding and gravity capture capacity, followed by later installation of leach tanks and other peripheral infrastructure to treat the stockpiled gravity tailings at the appropriate time.

"The potential advantages are initial low capital expenditure, early cash flow and minimal dilution to shareholders. In the meantime, we will continue drilling to expand the gold resource and potentially negate the typical "orphan" investor period that many companies undergo while undertaking feasibility studies."



**Photo 1: RC Metallurgical Samples**

**Metallurgical Testwork Program Overview**

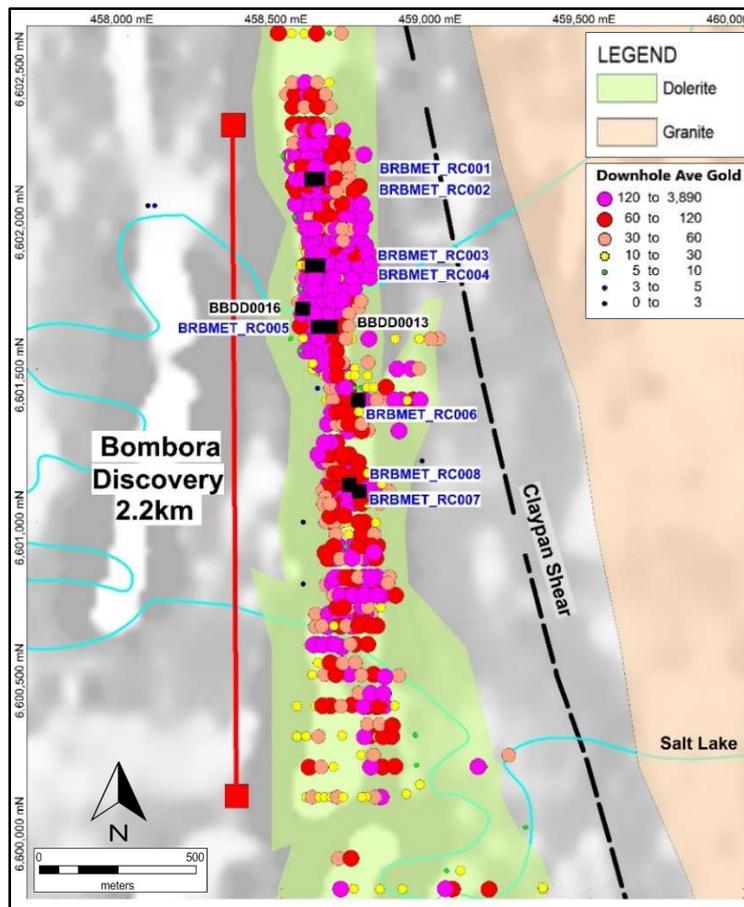
The sources of the metallurgical samples associated with the testwork reported here are shown on Figures 1 and 2.

The metallurgical testwork was undertaken by Australian Laboratory Services (**ALS**) in Perth. Previously released testwork was limited to comminution studies on diamond core and an assessment of gravity- and leach- recoverable gold on two composite RC samples (ASX Release 18 October 2017).

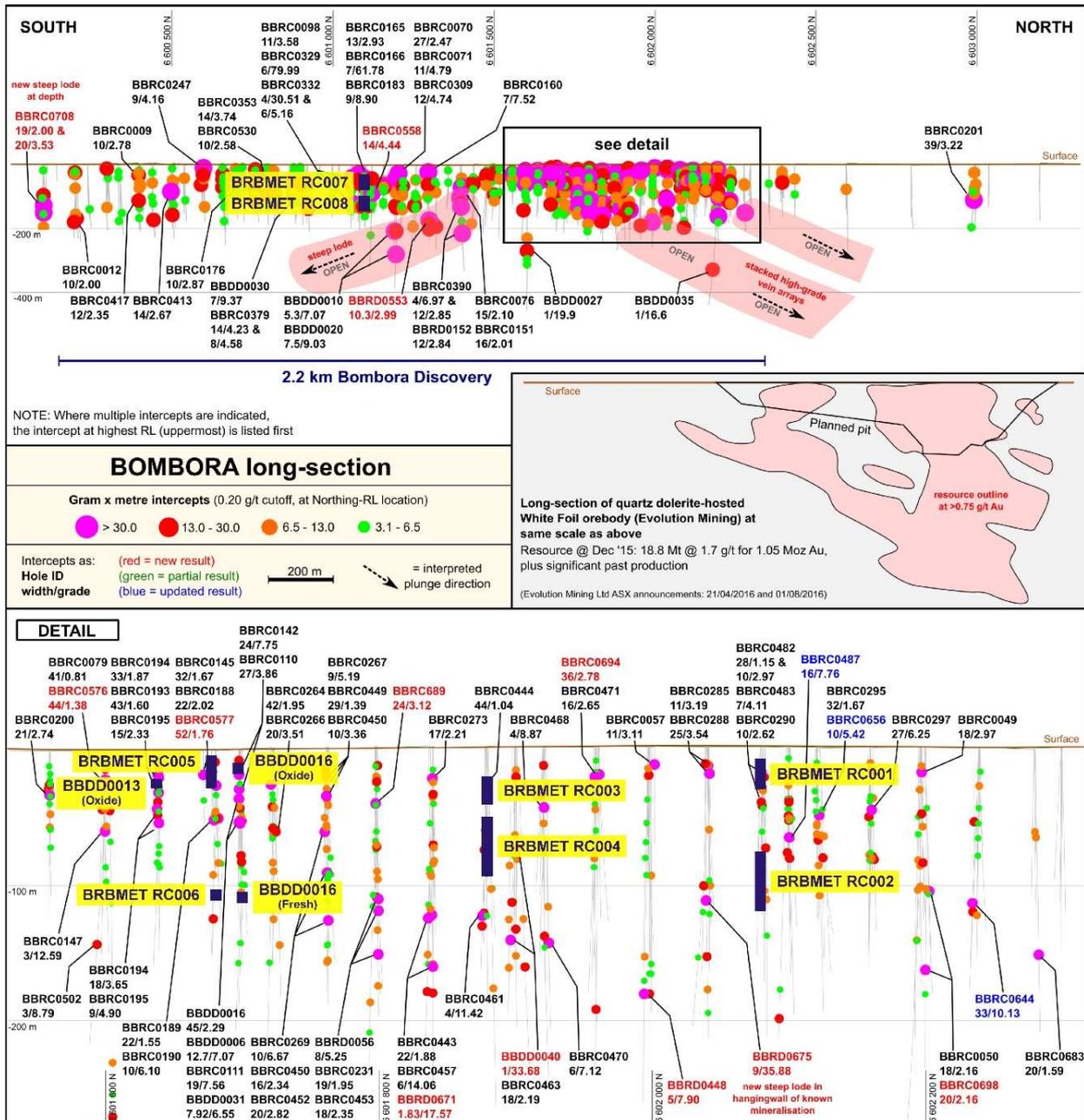
The testwork described in this report consisted of:

- (i) gravity and leach gold extraction testing of three more oxide RC composite samples and three more fresh (primary) RC composite samples;
- (ii) gravity and leach gold extraction testing of "horizontal" composites of the oxide and fresh RC material above; and
- (iii) assessment of ore grind size and gravity and leach gold recovery using three different size fractions of diamond core samples of oxide and fresh mineralisation.

An assessment of the gold leach reagents and oxygen requirements was made for each phase of the testwork. The three components of the metallurgical testwork are described below.



**Figure 1: Lake Roe Metallurgical Testing Drillhole Location Plan**



### Gravity and Cyanide Leach Gold Extraction of Individual RC Composites

The initial part of the new testwork involved an assessment of the gravity recoverable gold, and the gold recoverable by cyanide leach after gravity extraction on three oxide (weathered) and three fresh (primary) composite samples of RC fines (BRBMET\_RC003 to BRBMET\_RC008). The results for BRBMET\_RC001 and BRBMET\_RC002 were previously reported (ASX Release 18 October 2017).

The provenance of the RC samples is summarised in Table 1 and detailed in Appendix 1 and Annexure 1.

Sample	Northing	Type	Weight (kg)	Grade (g/t Au)
BRBMET_RC001	2120N	Oxide	32.991	3.09
BRBMET_RC002	2120N	Fresh	20.628	1.54
BRBMET_RC003	1840N	Oxide	15.075	4.52
BRBMET_RC004	1840N	Fresh	19.597	2.09
BRBMET_RC005	1640N	Oxide	29.896	2.44
BRBMET_RC006	1400N	Fresh	5.767	1.97
BRBMET_RC007	1100N/1080N	Oxide	18.88	70.82
BRBMET_RC008	1120N	Fresh	12.438	4.16

**Table 1: Lake Roe RC Composite Grades**

### Results/Analysis

The RC samples were found to have an as received P80 particle size of approximately 39-60µm, so no pre-leach grinding was undertaken.

The comparatively high levels of sulphide sulphur in oxide samples RC001, RC003, RC005 and RC007 indicate that the oxide mineralisation is transitional in nature (Table 2).

Sample	RC001	RC002	RC003	RC004	RC005	RC006	RC007	RC008
<b>Au (g/t)</b>	3.01	1.67	4.93	2.53	2.38	2.20	82.2	4.93
<b>True SG</b>	2.935	2.835	2.948	3.008	2.928	3.014	2.996	2.939
<b>C<sub>TOTAL</sub> (%)</b>	0.69	1.08	0.72	0.69	0.06	0.42	0.69	0.72
<b>C<sub>ORGANIC</sub> (%)</b>	0.06	0.06	0.09	0.06	0.06	0.09	0.12	0.06
<b>Hg (ppm)</b>	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
<b>S<sub>TOTAL</sub> (%)</b>	0.88	1.16	1.26	0.66	0.04	1.86	0.86	2.12
<b>S<sub>SULPHIDE</sub> (%)</b>	0.82	1.06	1.20	0.64	<0.02	1.64	0.82	1.96
<b>Te (ppm)</b>	1.00	0.60	2.00	0.40	1.80	<0.20	0.40	1.00

**Table 2: Lake Roe RC Composite Samples - Key Components as Determined by ALS**

Each sample was subjected to ALS standard gravity recoverable gold testing prior to cyanidation of the gravity tail. In these tests, gravity concentrate from a centrifugal concentrator is subjected to mercury amalgamation. The amalgam tail is recombined with the ore tail ahead of cyanide leaching.

Results for gravity recoverable gold, total gold extraction and reagent requirements are summarised in Table 3 which includes results for previously reported samples RC0001- 0002.

Sample	Ore Type	Measured Head Grade Au (g/t)	Test Number	Calculated Head Grade Au (g/t)	Test No.	Total Au Extraction (%)	Gravity Au (%)	NaCN Consumption (kg/t)	Lime Consumption (kg/t)
RC-001	Oxide	3.01	RH297	3.18	RH297	95.6	26.2	0.54	1.81
RC-002	Fresh	1.67	RH298	1.60	RH298	95.6	39.8	0.66	0.48
RC-003	Oxide	4.93	RH301	4.70	RH301	97.7	29.0	0.96	2.11
RC-004	Fresh	2.53	RH302	2.45	RH302	98.0	60.0	0.48	0.35
RC-005	Oxide	2.38	RH303	2.86	RH303	97.9	14.4	0.53	0.89
RC-006	Fresh	2.20	RH304	3.52	RH304	98.0	22.1	0.60	0.45
RC-007	Oxide	82.2	RH305	76.1	RH305	98.5	72.8	1.00	0.59
RC-008	Fresh	4.93	RH306	3.90	RH306	98.0	51.0	1.01	0.59

**Table 3: Lake Roe RC Composite Grades & Reagent Requirements**

Total gold recoveries of 95.6% to 98.5% were achieved in the oxide zone and 95.6% to 98.0% in the fresh zone.

Gravity recoverable gold in the oxide zone averaged 35% with a range of 14% to 72%. Gravity recoverable gold in the fresh zone averaged 43% with a range of 22% to 60%. There is no obvious correlation between head grade and the percentage of gravity recoverable gold (or total gold recovery) in the oxide or primary zone.

Maximum gold extraction from gravity tails was achieved within 24 hours of leach time. Reagent consumption appears variable across the suite of samples with cyanide consumption varying from 0.54 kg/t to 1.01 kg/t and lime consumption in the range 0.35 kg/t to 2.11 kg/t.

### **Gravity and Cyanide Leach Gold Extraction of “Horizontal” RC Composites (Oxide and Fresh)**

Testing of the individual RC samples was followed by the production and testing of “horizontal” composites of shallow oxide/transition gold mineralisation, and the deeper fresh mineralisation extending from 6601080N to 6602120N (Figures 1 and 2).

These composites comprised equal weights of material as follows:

- Oxide/transition RC001, RC003, RC005, RC007 (Composite 1); and
- Fresh RC002, RC004, RC006, RC008 (Composite 2).

### **Results/Analysis**

The Composite 1 and 2 samples had particle sizes of 43µm and 40µm respectively (P80).

The ALS-assayed grades for Composite 1 and 2 were 19.25g/t gold and 2.00g/t gold respectively. This compares to average grades of 20.21g/t gold and 2.44g/t gold for the oxide and fresh composite based on equal weights of the four component samples listed in Table 1.

The high-grade nature of the oxide/transition composite sample reflects the very high-grade nature of sample RC007 (Table 2), however, it was considered reasonable to test the extreme in this case.

The results for gravity recoverable gold and total gold extraction by direct leach (no carbon) and with carbon-in-leach (**CIL**), described as Gravity Leach and Gravity CIL below (for the oxide and fresh composite samples) are summarised in Table 4 which also details reagent requirements.

Sample	Ore Type	Test Type	Test Number	Calculated Head Grade Au (g/t)	Total Au Extraction (%)	Gravity Au (%)	NaCN Consumption (kg/t)	Lime Consumption (kg/t)
Composite 1	Oxide	Gravity Leach	RH311	22.22	98.8	77.8	1.07	1.61
Composite 2	Fresh	Gravity Leach	RH312	4.71	97.7	32.4	0.60	0.55
Composite 1	Oxide	Gravity CIL	RH313	22.34	94.0	78.4	2.33	1.10
Composite 2	Fresh	Gravity CIL	RH314	2.64	96.2	55.4	1.40	0.55

**Table 4: Lake Roe RC Horizontal Composite Results**

The two oxide composite samples of Composite 1 yielded gravity gold contents of close to 78% and overall recoveries of 94.0-98.8%.

The two fresh composite samples of Composite 2 yielded gravity gold contents of 32-55% and overall recoveries of 96.2-97.7%.

The CIL total gold extraction results were slightly inferior to the direct leach extractions for the oxide and fresh samples which appears to be a consequence of the low levels of cyanide chosen to conduct this testwork. Additional testing of cyanide addition rates in the context of CIL performance appears warranted.

Gold extractions were generally complete well within 24 hours of leach time.

The results of these tests illustrate the heightened reactivity of the oxide/transition material in terms of elevated reagent consumption compared with that of the fresh ore. ALS completed oxygen uptake testing of each composite by purging air through 45% solids slurry at pH >10 and 0.05% cyanide concentration. Both samples exhibited extremely low oxygen consumption, leading to the conclusion that both ore types are benign and do not significantly consume oxygen.

### **Grind Size and Gold Recovery**

The RC samples did not present the opportunity to test the effect of grind size on gold recovery, as the gold extraction testwork on the RC samples was undertaken on pre-ground RC samples with a P80 size range of 39µm to -60µm.

To assess the effect of grind size on gold recovery, three samples of crushed diamond core samples were prepared with a coarser grind size of 150µm, 106µm and 75µm (P80) using oxide and fresh mineralisation as summarised in Table 5. The provenance of the diamond core, which was previously used for assessing the comminution characteristics, is detailed in Appendix 1.

COMPOSITE HEAD ASSAYS				
Analyte	Unit	Composite 1 (Oxide Ore)	Composite 2 (Oxide Ore)	Composite 4 (Fresh Ore)
<b>Au</b>	g/t	3.81	2.00	2.32
<b>Ag</b>	g/t	0.60	0.60	<0.30
<b>True SG</b>		2.90	3.08	3.07
<b>C<sub>TOTAL</sub></b>	%	0.06	0.36	0.75
<b>C<sub>ORGANIC</sub></b>	%	0.03	0.03	0.06
<b>S<sub>TOTAL</sub></b>	%	0.18	0.16	0.28
<b>S<sub>SULPHIDE</sub></b>	%	<0.02	0.16	0.26

**Table 5: Lake Roe Diamond Core Samples**

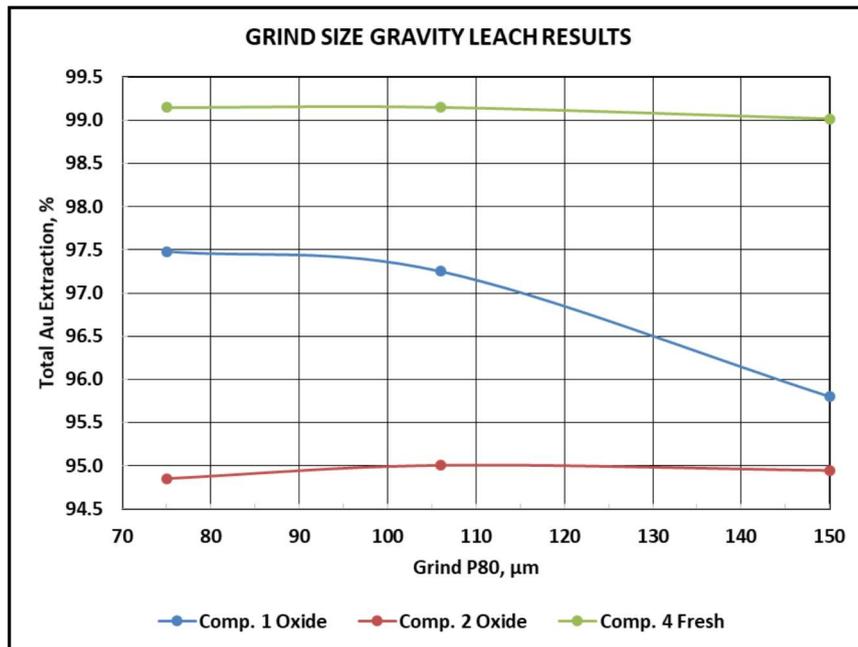
The results for gravity recoverable gold, total gold extraction (direct leach) and reagent consumption are summarised in Table 6.

Sample	Ore Type	Grind Size (µm)	Measured Head Grade Au (g/t)	Test Number	Calculated Head Grade Au (g/t)	Gravity Au (%)	Total Au Extraction (%)	NaCN Consumption (kg/t)	Lime Consumption (kg/t)
Composite 1	Oxide	150	3.81	RH325	3.81	39.1	95.8	0.38	1.39
Composite 1	Oxide	106	3.81	RH326	4.00	42.2	97.3	0.42	1.46
Composite 1	Oxide	75	3.81	RH327	3.97	45.2	97.5	0.47	1.19
Composite 2	Oxide	150	1.995	RH328	1.98	15.0	94.9	0.50	0.32
Composite 2	Oxide	106	1.995	RH329	1.94	20.3	95.0	0.42	0.34
Composite 2	Oxide	75	1.995	RH330	1.94	22.1	94.9	0.48	0.30
Composite 4	Fresh	150	2.825	RH331	2.55	85.7	99.0	0.37	0.28
Composite 4	Fresh	106	2.825	RH332	2.94	89.9	99.2	0.41	0.22
Composite 4	Fresh	75	2.825	RH333	2.94	90.8	99.1	0.43	0.23

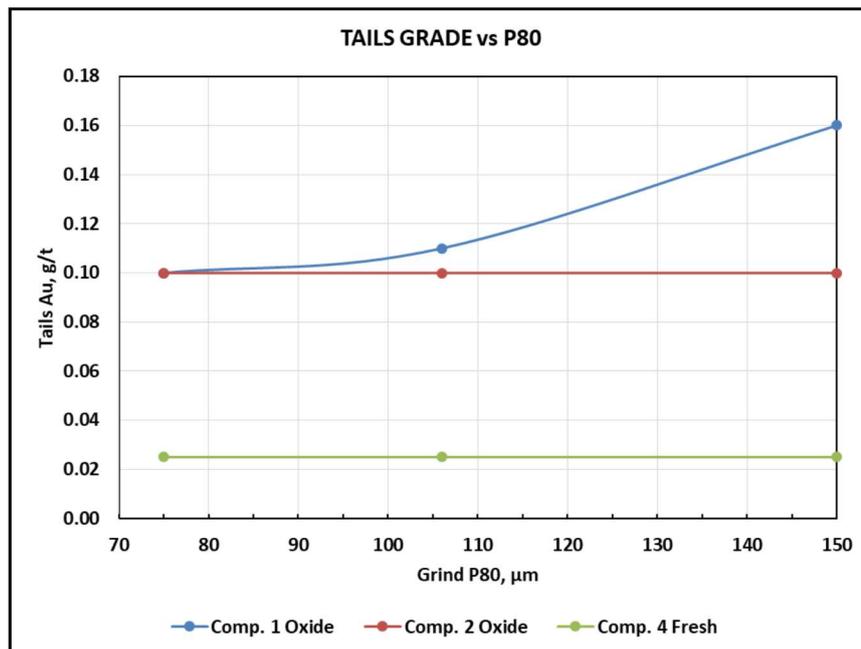
**Table 6: Lake Roe Gravity Leach Results for Three Different Grind Sizes**

### Results/Analysis (Grind Size and Recoverable Gold)

The results of this work suggest a target grind P80 of 125µm to 106µm would be adequate to achieve optimum gold extraction (Figure 3). The solids tail grades at various grind sizings indicates that a grind P80 of 106µm would be adequate for the Lake Roe ores (Figure 4).

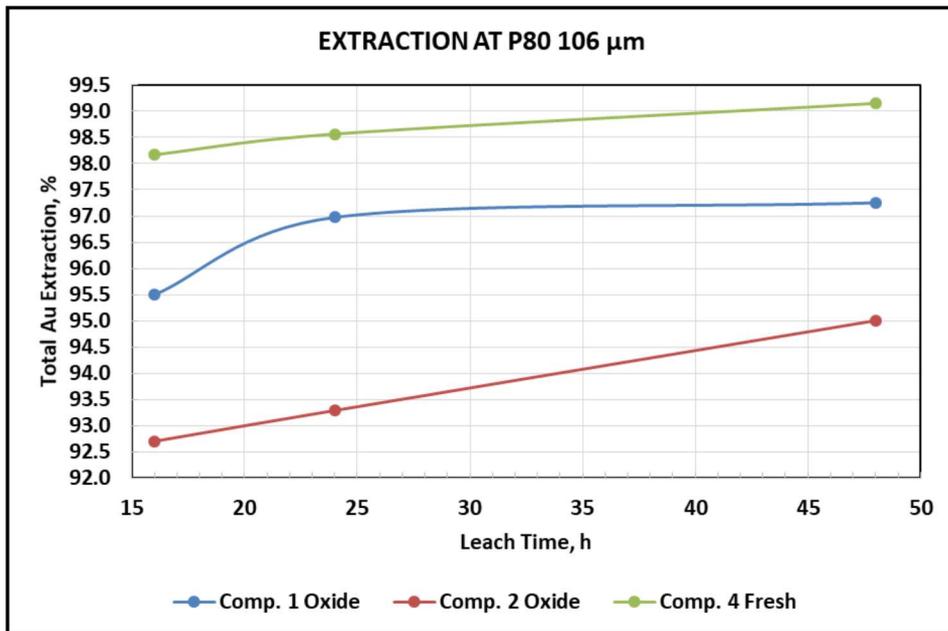


**Figure 3: Effect of Grind Size on Gravity Leach Gold Extraction**



**Figure 4: Effect of Grind Size on Tails Grade**

The fresh gold mineralisation achieved near-maximum extraction at P80 106µm of 98.5% within 24 hours (Figure 5). The gold extraction rate for the two oxide samples was 93.3% and 98.5% within 24 hours.



**Figure 5: Gravity Leach Extraction at P80 106µm**

Although the optimum grind size appears to lie in the range 106µm to 125µm, further testing on an extended range of drill core samples is warranted to confirm the most economical range of grind sizes for Lake Roe ores.

## Metallurgical Testwork Program Summary

### Comminution

The gold mineralisation may generally be described as moderately abrasive and medium-hard from a ball milling perspective. The ore is suited to preparation using a conventional crushing and ball milling circuit. Energy consumption could be expected to be modest.

A conventional comminution circuit comprising 3-stage crushing to produce fine ore with a P80 of about 10mm followed by ball milling to P80 125µm would provide a workable comminution solution. Selecting a target P80 of 106µm would provide a measure of conservatism.

SAG Mill Comminution (**SMC**) testing indicates that the ore is relatively soft and could be amenable to SAG milling. However, further assessment of a broader range of samples will be required to confirm SAG milling amenability or otherwise.

### Gravity Recoverable Gold

Gravity recoverable gold at Lake Roe appears pervasive throughout the deposit. At the levels encountered to date, the inclusion of a gravity circuit in a future treatment plant is all but mandatory to mitigate against loss of relatively coarse free gold in the leach train.

**Reagent Requirements****Grinding Media**

With Abrasion Index values <0.3g, Lake Roe ore would not be expected to present significant wear issues. This would translate into a modest requirement for grinding media of the order of 1.5kg/t ore when milling fresh material; less when treating oxide/transition ore.

**Lime**

The oxide/transition ore appears to be slightly more reactive, requiring a higher dose rate of lime than fresh ore for leach pH control. The results indicate an upper consumption rate of 1.6 kg/t for some oxide/transition ores compared with 0.55kg/t for fresh ore. A lime preparation and dosing facility would have to be able to support the upper level of demand.

**Cyanide**

As in the case for lime, the results indicate that a cyanide preparation and dosing system would have to be able to deliver around 2.5kg/t of sodium cyanide to the leach stage. However, data for coarser grind sizes suggest the upper figure may be closer to 0.4kg/t. The difference may be related to leach feed ore sizing, with fine ore absorbing a greater quantity of reagent. More work is required to better understand cyanide requirements of Lake Roe ores.

**Oxygen**

Test results obtained to date indicate an almost insignificant requirement for oxygen by both ore types.

**Future Metallurgical Testwork**

The following testwork is planned to assess the following aspects of the metallurgy at the Lake Roe project:

- SAG milling amenability;
- Optimisation of range of grind sizes applicable across the Lake Roe deposit;
- Optimisation of reagent additions;
- Extend CIL testing; and
- Further testwork using site water.

Breaker plans to complete this work as part of a post-Resource project feasibility program.

**Background**

The 2.2km Bombora discovery at Lake Roe is open along strike and depth and forms part of an 8km-long gold system that is itself open along strike. The Bombora discovery is hidden below thin transported cover (typically 5-10m).

Gold typically occurs as sulphide-rich lode and stockwork mineralisation in the upper, iron-rich part of a fractionated (layered) dolerite. The gold occurs in steep and flat lodes particularly where they intersect. The lodes are sulphide-impregnated fault zones (fluid pathways) with up to 10% pyrrhotite and pyrite accompanied by silica, albite, biotite and carbonate alteration and (tensional) quartz-pyrite veinlets that can form stockwork-style mineralisation.



**Tom Sanders**  
Executive Chairman  
Breaker Resources NL



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**For further information on Breaker Resources NL please visit the Company's website at [www.breakerresources.com.au](http://www.breakerresources.com.au), or contact:**

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**COMPETENT PERSONS STATEMENT**

Information in this report relates to metallurgical and exploration results based on information compiled by Mr Mike Kitney and Mr Tom Sanders respectively. Mr Kitney and Mr Sanders are each Members of the Australasian Institute of Mining and Metallurgy. Mr Kitney is a non-executive Director of Breaker Resources NL engaged as consultant to Breaker, and Mr Sanders is an executive of Breaker Resources NL engaged by Breaker on an 80% of full time basis; they are each shareholders in the Company. Each has sufficient experience which is relevant to the nature of work and style of mineralisation under consideration 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 Kitney and Mr Sanders consent to the inclusion in the release of the statements based on their information, in the form and context in which it appears.

**APPENDIX 1a: RC and Diamond Core Sample Locations and RC Composite Provenance**

Met Sample No	Sample Type	From-To	HoleID	MGA94 N	MGA94 E	RL	Depth	Dip	Azim
<b>BBDD0013</b>	Full core	re Table 1	<b>BBDD0013</b>	6601638	458661	311.9	132.5	-61.1	269.1
<b>BBDD0016</b>	Full core	re Table 1	<b>BBDD0016</b>	6601697	458569	312.9	132.3	-70.6	89.4
<b>BRBMET_RC0001</b>	Oxide/Transition	16m-22m	<b>BBRC0294</b>	6602120	458598	314.5	96	-59.8	269.3
"	Oxide/Transition	27m-37m	<b>BBRC0295</b>	6602121	458618	314.3	138	-59.7	270.3
<b>BRBMET_RC0002</b>	Fresh	76m-81m	<b>BBRC0295</b>	6602121	458618	314.3	138	-59.7	270.3
"	Fresh	123m-129m	<b>BBRC0295</b>	6602121	458618	314.3	138	-59.7	270.3
<b>BRBMET_RC0003</b>	Oxide/Transition	26m-34m	<b>BBRC0273</b>	6601839	458599	314.8	114	-60	268.2
<b>BRBMET_RC0004</b>	Fresh	41m-45m	<b>BBRC0274</b>	6601839	458620	314.3	126	-59.3	267.5
"	Fresh	78m-86m	<b>BBRC0274</b>	6601839	458620	314.3	126	-59.3	267.5
<b>BRBMET_RC0005</b>	Oxide/Transition	5m-21m	<b>BBRC0194</b>	6601638	458619	311.7	90	-60.5	267.6
<b>BRBMET_RC0006</b>	Fresh	108m-112m	<b>BBRC0151</b>	6601398	458749	311.8	170	-62.4	268.6
<b>BRBMET_RC0007</b>	Oxide/Transition	48m-51m	<b>BBRC0183</b>	6601100	458752	311.7	170	-60.8	270.4
"	Oxide/Transition	31m-36m	<b>BBRC0183</b>	6601100	458752	311.7	170	-60.8	270.4
<b>BRBMET_RC0008</b>	Fresh	66m-72m	<b>BBRC0312</b>	6601122	458720	311.7	120	-59.4	269.8

**APPENDIX 1b: Diamond Core Composite Sample Provenance**

Drill Hole ID	Interval (m)	Mass (kg)
<b>Composite 1 (Oxide Ore)</b>		
BBDD0016	12.0-13.0	6.22
	13.0-14.0	5.30
	14.0-14.7	3.77
<b>Composite 2 (Oxide Ore)</b>		
BBDD0013	22.0-23.0	8.06
	23.0-24.0	7.03
	24.0-25.0	7.27
BBDD0016	25.0-26.0	6.42
	26.0-27.0	6.01
	27.0-27.5	3.44
<b>Composite 4 (Fresh Ore)</b>		
BBDD0016	104.0-105.0	8.62
	105.0-106.0	8.37
	106.0-107.0	8.65

**Notes**

- (i) Coordinates and azimuth in GDA94 MGA Zone 51

**ANNEXURE 1: JORC Code (2012 Edition) Table 1**
**SECTION 1: SAMPLING TECHNIQUES AND DATA**

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<i>Nature and quality of sampling (eg. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i>	<p>Reverse circulation (<b>RC</b>) and diamond drill holes were completed by Breaker Resources NL. Holes were drilled to variable depth dependent upon observation from the supervising geologist.</p> <p>RC samples were collected from a trailer mounted cyclone by a green plastic bag in 1m intervals and the dry sample riffle split to produce a 3kg representative sample which was placed on the ground with the remaining bulk sample in rows of 20. Any damp or wet samples were kept in the green plastic bag, placed in the rows of samples and a representative spear or scoop sample taken.</p> <p>Diamond core is drilled HQ or NQ dependent upon ground conditions. Core is cut in half by a diamond saw on site and half core is submitted for analysis except duplicate samples which are submitted as quarter core.</p> <p>Metallurgical drill core samples comprise whole diamond core from selected visually mineralised zones from both oxide (weathered) and fresh rock material.</p> <p>Metallurgical RC chip samples comprise dried and pulverised (to a standard 85% pass through a -75um sieve) reject assay splits that were previously prepared and analysed by MinAnalytical. The samples supplied to ALS were selected and composited by BRB geologists on the basis of previous assay results for supply to ALS for metallurgical determinations.</p>
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	<p>Sampling was undertaken using Breaker Resources' (BRB) sampling protocols and QAQC procedures in line with industry best practice, including standard and duplicate samples.</p> <p>All coordinates are in UTM grid (GDA94, Zone 51) and drill hole collar locations are surveyed by differential GPS to an accuracy of 0.01m.</p>
	<i>Aspects of the determination of mineralisation that are Material to the Public Report.</i>  <i>In cases where 'industry standard' work has been done this would be relatively simple</i>	<p>RC samples are composited at 4m to produce a bulk 3kg sample.</p> <p>Half core samples are cut using a diamond saw on site generally on 1m intervals or on geological boundaries</p>

Criteria	JORC Code explanation	Commentary
	<i>(eg. 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg. submarine nodules) may warrant disclosure of detailed information.</i>	<p>where appropriate (minimum 0.4m to maximum of 1.2m).</p> <p>Metallurgical test samples of whole NQ and HQ diameter core were visually selected from mineralised intervals, within different lodes at Lake Roe and collected at various depths along the strike of the high grade shoots. Composite sample weights varied between 16 and 28kg. The samples represent typical fresh and oxidised mineralised zones drilled within the project area.</p> <p>The composite core samples were sent to ALS in Perth for defined metallurgical testwork.</p> <p>RC chip samples for metallurgical testwork were composited from several wide-spaced RC holes to produce samples of oxide/transitional weathering and samples from fresh rock for gravity and cyanide leach gold extraction tests.</p>
<b>Drilling techniques</b>	<i>Drill type (eg. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (eg. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is orientated and if so, by what method, etc.).</i>	<p>RC drilling was undertaken using a face-sampling percussion hammer with 5½" bits.</p> <p>Drilling comprises HQ3 and NQ2 corer. Core is orientated using Reflex orientation tools, with core initially cleaned and pieced together at the drill site, and fully orientated by BRB field staff at Lake Roe.</p>
<b>Drill sample recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	<p>RC drilling recoveries were visually estimated as a semi-qualitative range and recorded on the drill log along with moisture content.</p> <p>Diamond drillers measure core recoveries for every drill run completed using either three or six metre core barrels. The core recovered is physically measured by tape measure and the length recovered is recorded for every "run". Core recovery is calculated as a percentage recovery.</p> <p>Core recovery is confirmed by BRB staff during core orientation activities on site and recorded into the Company's DataShed database.</p>
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	<p>RC holes were collared with a well-fitting stuff box to ensure material to the outside return was minimised. Drilling was undertaken using auxiliary compressors and boosters to keep the hole dry and lift the sample to the sampling equipment. Drill cyclone and splitter were cleaned regularly between rod-changes if</p>

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		<p>required and after each hole to minimise down hole or cross-hole contamination</p> <p>Various diamond drilling additives (including muds and foams) have been used to condition the drill holes to maximise recoveries and sample quality.</p> <p>Diamond drilling by nature collects relatively uncontaminated core samples. These are cleaned at the drill site to remove drilling fluids and cuttings to present clean core for logging and sampling.</p>
	<p><i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></p>	<p>There is no observable relationship between recovery and grade, or evidence of sample bias in the RC drilling at this stage.</p> <p>There is no significant loss of material reported in the mineralised parts of the diamond core to date.</p>
<b>Logging</b>	<p><i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></p>	<p>Drill holes were logged by a geologist for lithology, alteration, mineralisation, structure, veins, weathering, wetness and obvious contamination. Data is then captured in a DataShed relational database appropriate for mineral resource estimation.</p>
	<p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></p>	<p>RC and diamond core logging is both qualitative and quantitative in nature and captures downhole depth, colour, lithology, texture, mineralogy, mineralisation, alteration and other features of the samples.</p> <p>All cores are photographed in the core tray, with individual photographs taken of each tray both dry and wet.</p>
	<p><i>The total length and percentage of the relevant intersections logged.</i></p>	<p>All drill holes were logged in full.</p>
<b>Sub-sampling techniques and sample preparation</b>	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p>	<p>Core samples were cut in half using a conventional diamond core saw. Half core samples were collected for assay except duplicate samples which are quarter cut. An entire half core sample is retained and stored in core trays.</p> <p>Metallurgical whole core samples for comminution testing were delivered in trays to an accredited laboratory (ALS)</p>
	<p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p>	<p>RC samples were split 87.5%-12.5% by a stand-alone multi-tiered riffle splitter. The majority of the samples were recorded as dry and minimal wet samples were encountered. Sample duplicates were obtained by re-splitting the remaining bulk sample contained in a plastic bag in the field using the multi-tier riffle splitter.</p>

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		<p>RC composite samples were collected via spear sampling of the riffle split bulk sample contained in green plastic bags.</p> <p>The non-core (RC) metallurgical samples have been collected from the mineralised zones from recent RC drill samples. The samples were composited from reject splits of samples previous analysed at MinAnalytical. The material comprised sample material that had been pulverised by MinAnalytical to - 75µm. The samples were composited by BRB geologists and supplied to ALS for gravity and cyanide leach testing.</p>
	<p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p>	<p>The RC chip metallurgical samples were sent to ALS for sample preparation and analysis. All samples for assay were previously sorted, dried pulverised to - 75µm to produce a homogenous representative 25g or 50g sub-sample for analysis by MinAnalytical, selected and composited on the basis of previously reported assay by BRB geologists prior to despatch to ALS.</p> <p>Core samples were selected and supplied as whole core to ALS in core trays.</p>
	<p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p>	<p>RC samples are collected at 1m intervals and composited into 4m samples using a spear to sample individual metre bagged samples.</p> <p>Diamond core sample intervals are based on geological intervals typically less than a nominal 1m.</p> <p>Quality control procedures involved the use of Certified Reference Materials (CRM) along with sample duplicates (submitted as quarter core). Selected samples are also re-analysed to confirm anomalous results.</p> <p>ALS conducts insertion of certified standards, blanks, check replicates and fineness checks to ensure grind size of 85% passing -75µm as part of their own internal QAQC procedures.</p>
	<p><i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></p>	<p>Sample duplicates for RC and diamond drilling (quarter core) are taken at least three times in every 100 samples.</p> <p>All samples submitted were selected to weigh less than 3kg to ensure total preparation at the pulverisation stage.</p> <p>Duplicate sample results are reviewed regularly for both internal and external</p>

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		reporting purposes.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	The sample sizes are considered to be appropriate to correctly give an accurate indication of mineralisation given the qualitative nature of the technique and the style of gold mineralisation sought.
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	<p>The analytical technique used a 25g or 50g fire assay and is appropriate to detect gold mineralisation. The use of fire assay is considered a total assay.</p> <p>For the Lake Roe metallurgical test samples, a screen fire assay technique was utilised on a homogenised 2kg aliquot to analyse sample head grades at ALS Laboratories, Perth including an SG determination.</p> <p>For pulverised RC chip samples, a gravity concentrate was completed to determine the quantity of gravity extractable gold. It should be noted that due to mass recovery differentials between operating plant and laboratory scale testing the laboratory scale testing could overstate the amount of gravity gold that could be recoverable in an operating process plant.</p> <p>After the gravity concentrate is removed the extraction of gold over time is determined by assaying the solution after 2, 4, 8, 12, 24 and 48 hours using laboratory scale direct cyanide extraction to simulate an industry standard carbon in leach (CIL) process.</p>
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	No geophysical tools were used to determine any reported element concentrations.
	<i>Nature of quality control procedures adopted (eg. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie. lack of bias) and precision have been established.</i>	<p>BRB inserted CRMs and duplicates into the sample sequence, which were used at the frequency of three CRMs and three duplicates per 100 samples.</p> <p>Sample preparation checks for fineness were carried out by the laboratory as part of their internal procedures to ensure the grind size of 85% passing -75µm was being attained. Laboratory QAQC involved the use of internal lab standards using CRMs, blanks, splits and replicates.</p> <p>The metallurgical testing and results are preliminary in nature.</p>

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<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Alternative BRB personnel have verified the significant results outlined in this report. It is considered that the Company is using industry standard techniques for sampling and using independent laboratories with the inclusion of Company standards on a routine basis.
	<i>The use of twinned holes.</i>	None undertaken in this program.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Primary geological and sampling data were recorded digitally and on hard copy respectively, and are subsequently transferred to a digital database (DataShed relational database) where it is validated by experienced database personnel assisted by the geological staff. Assay results are merged with the primary data using established database protocols run in house by BRB.
	<i>Discuss any adjustment to assay data.</i>	No adjustments or calibrations were undertaken other than to average any repeated analysis for each individual sample.
<b>Location of data points</b>	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	Drill hole collars are initially located by handheld GPS and then picked up by an accredited surveyor using differential GPS. GPS elevation values are corrected where necessary using a digital elevation model from a LIDAR survey. Expected accuracy is +/- 4m for easting, northing and RL (GPS) and +/- 0.1m or less for surveyed and LIDAR elevation point data.  All RC and diamond holes are gyro surveyed for rig alignment and downhole at the completion of the hole.
	<i>Specification of the grid system used.</i>	The grid system is GDA94 MGA, Zone 51.
	<i>Quality and adequacy of topographic control.</i>	As detailed above.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	RC holes were spaced on a variable nominal 40m x 20m, 40m x 40m or wider reconnaissance drill patterns.  Diamond drill holes are drilled selectively, mainly to clarify structure and for deeper testing.
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	The drill density is not yet sufficient to adequately clarify the detailed geometry and support classification as a Mineral Resource.  Metallurgical testing data is very wide spaced and preliminary in nature
	<i>Whether sample compositing has been applied.</i>	Four metre composite samples were taken for all RC holes via spearing. One metre samples were riffle split when dry or by a representative spear or scoop

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		<p>sample when wet/damp.</p> <p>RC chips samples for metallurgical testing were composited as outlined Appendix 1</p> <p>Lengths of core for metallurgical samples were used as outlined in Appendix 1.</p>
<b>Orientation of data in relation to geological structure</b>	<p><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></p>	<p>Angled RC drilling and diamond drilling has so far confirmed three mineralisation orientations. The extent, geometry and plunge of the various structural "domains" and how they interact is still being resolved. Further detailed drilling is needed to confidently quantify the degree of sample bias arising from drill orientation (positive or negative).</p>
	<p><i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></p>	<p>Sample bias arising from orientation is discussed above.</p>
<b>Sample security</b>	<p><i>The measures taken to ensure sample security.</i></p>	<p>RC and diamond drill samples submitted were systematically numbered and recorded, bagged in labelled polyweave sacks and dispatched in batches to the laboratory via Ausdrill (internal freight) or BRB personnel. The laboratory confirms receipt of all samples on the submission form on arrival.</p> <p>All assay pulps are retained and stored in a Company facility for future reference if required.</p>
<b>Audits or reviews</b>	<p><i>The results of any audits or reviews of sampling techniques and data.</i></p>	<p>No formal audits/reviews have been conducted on sampling technique or data to date. However a scanning of sample quality (recovery, wetness and contamination) as recorded by the geologist on the drill rig against assay results occurs with no obvious issues identified to date.</p>

**SECTION 2: REPORTING OF EXPLORATION RESULTS**

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i>	<p>The RC and diamond drill holes are located on tenement E28/2515, which is held 100% by BRB.</p> <p>There are no material interests or issues associated with the tenement.</p>
	<i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	The tenement is in good standing and no known impediments exist.
<b>Exploration done by other parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<p>Historical holders of the Project area include Poseidon Gold, WMC, Mt Kersey Mining and Great Gold Mines.</p> <p>Vertical rotary air blast and aircore drilling undertaken in the period 1991 to 1998 identified a zone of strong gold anomalism that extends over a potential distance of 4km under thin (5-10m) cover (maximum grade of 4m at 0.71g/t Au).</p> <p>Although the prospectivity of the trend was recognised by previous explorers, rigorous anomaly definition and appropriate follow-up of encouraging results did not occur, apparently due to "non-geological" factors, including inconvenient tenement boundaries at the time of exploration and changes in company priorities and market conditions.</p>
<b>Geology</b>	<i>Deposit type, geological setting and style of mineralisation.</i>	<p>BRB is targeting Archean orogenic gold mineralisation near major faults.</p> <p>Gold is associated with subsidiary faults of the Claypan Shear Zone and occurs preferentially in the Fe-rich part of a fractionated dolerite in an area of shallow (5m to 20m) transported cover. The dolerite is folded into a domal geometry between two major shear zones ("domain" boundaries) that converge and bend in the vicinity of the project.</p> <p>The main exploration target is high-grade lode, stockwork, disseminated and quartz vein gold mineralisation hosted by different phases of the fractionated dolerite.</p>
<b>Drill hole Information</b>	<p><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i></p> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole</i></li> </ul>	Drill hole locations are described in the body of the text, in Appendix 1 and on related Figures.

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	<p>collar;</p> <ul style="list-style-type: none"> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar;</li> <li>dip and azimuth of the hole;</li> <li>down hole length and interception depth;</li> <li>hole length.</li> </ul> <p>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</p>	
<b>Data aggregation methods</b>	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg. cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	A nominal 0.2g/t Au lower cut-off is generally. No top-cuts have been applied.
	<i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i>	All reported RC and diamond drill assay results have been length weighted (arithmetic length weighting).
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	None undertaken.
<b>Relationship between mineralisation widths and intercept lengths</b>	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p> <p><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg. 'down hole length, true width not known').</i></p>	<p>All drill hole intercepts are measured in downhole metres (criteria for detailed estimate of true width not yet at hand unless otherwise stated). At this stage the main primary mineralised structural orientation(s) are still being ascertained and are inconclusive.</p> <p>The orientation of the drilling may introduce some sampling bias (positive or negative).</p>
<b>Diagrams</b>	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	Refer to Figures and Tables in the body of the text.
<b>Balanced reporting</b>	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	A nominal 0.2g/t Au lower cut-off is generally used. No top-cuts have been applied.
<b>Other substantive</b>	<i>Other exploration data, if meaningful and material, should be reported including (but</i>	There is no other substantive exploration

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<b>exploration data</b>	<i>not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	data.
<b>Further work</b>	<p><i>The nature and scale of planned further work (eg. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p> <p><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p>	Further work is planned as stated in this announcement.