

- > **99 koz gold produced at AISC A\$876/oz in quarter**
- > **Continued strong operating cash flow drives debt reduction and improved net-cash position**
- > **Gwalia Extension Project Feasibility Study approved**

## Executive Summary

### Operations

- > **Consolidated gold production** for the December 2016 quarter was 98,982 ounces (Q1 Sep: 92,547 ounces).
  - > **Consolidated All-In Sustaining Cost<sup>1</sup>** (AISC) was A\$876 per ounce (Q1 Sep: A\$935 per ounce). The average realised gold price for the quarter was A\$1,636 per ounce (Q1 Sep: A\$1,737 per ounce). **Free cash flow** (cash contribution from operations<sup>2</sup>) for the quarter of A\$76<sup>3</sup> million (Q1 Sep: A\$83 million).
  - > **Gwalia** (Western Australia) gold production for the quarter was 70,925 ounces (Q1 Sep: 67,118 ounces) at AISC of A\$716 per ounce (Q1 Sep: A\$774 per ounce). Mined grade for the quarter was 11.9 g/t Au (Q1 Sep: 10.4 g/t Au) with 201 kt ore milled (Q1 Sep: 215 kt).
  - > **Simberi** (PNG) gold production for the quarter was 28,057 ounces (Q1 Sep: 25,429 ounces), at AISC of A\$1,277 per ounce (Q1 Sep: A\$1,359 per ounce).
- ### Health & Safety
- > The Company-wide Total Recordable Injury Frequency Rate (TRIFR), calculated as a rolling 12 month average, continued at its record low of 1.8 to 31 December 2016 (Q1 Sep: 1.8).
- ### Exploration
- > **Gwalia (Leonora) WA** Activities focused on defining extensions to the Gwalia lode system continued during the quarter with surface drill programs targeting northern and down-plunge zones.
  - > Two daughter holes GWDD18B and GWDD18C were completed at Gwalia targeting below 2,000 metres, passing through intervals interpreted to represent South West Branch (SWB) and South Gwalia Series (SGS2)
  - > A new program seeking to extend Resources below 2,000 mbs has commenced. Three daughter holes were underway at the end of the quarter and ten additional holes are scheduled to be drilled during Q3 March 2017.
- > The program targeting the northern extension to the Gwalia Lode system between 1,600 and 1,700 metres below surface (mbs) has successfully extended definition of the lode system a further 200m north of current development during the quarter.
  - > 2D seismic work utilising downhole methodology was completed at Gwalia during the quarter. Results from this work confirm the strong reflective nature of the Gwalia Mine Sequence and support a proposal to undertake a more extensive 3D seismic program in Q3 March 2017.
  - > **Pinjin Project (Yilgarn) WA** A 3,329 metre Reverse Circulation drilling program for 22 holes was completed during the December 2016 quarter (see summary on page 8 and details in Figures 3.0 to 3.3 and Table 3). A 290 hole 17,000 metre aircore drill program will commence early in Q3 March 2017 following-up the encouraging early stage results reported last quarter.
  - > **Back Creek NSW** A 3,776 line kilometre airborne geophysical survey was completed over Back Creek EL8214 in central NSW.
  - > **Tatau Island PNG** Trenching, mapping and drilling continued at Southwest Tatau Island, during the December 2016 quarter, targeting high grade sulphide-oxide gold mineralisation (see summary on page 9 and details in Figures 5.0 and 5.2).
  - > An airborne LiDAR (Light Detection and Ranging) survey was completed over Tatau Island to produce an accurate topographic map to support regional exploration.
  - > **Option and farm-in with Newcrest** As announced on 14 November 2016, St Barbara has entered into an option and farm-in with Newcrest for copper-gold porphyry exploration on the tenements on nearby Tatau and Big Tabar Islands (see detail on page 9). Field preparations for grid soil sampling over copper-gold porphyry targets located in central Tatau Island commenced late in the December 2016 quarter (Figure 5.0).

<sup>1</sup> Non-IFRS measure, refer Appendix

<sup>2</sup> Non-IFRS measure, refer cash movement table on page 12

<sup>3</sup> Excludes Gwalia growth capex of \$2 million

## Gwalia Extension Project

- > **Ventilation Upgrade** The Feasibility Study to increase ventilation at Gwalia announced in August 2016 has been completed and approved by the Board. The project provides the additional ventilation needed to mine between 1,800 and 2,000 metres below surface (mbs). The study identified raiseboring as the primary project execution risk.
- > **Paste Aggregate Fill (PAF)** A Feasibility Study on Paste Aggregate Fill (PAF) has also been completed and approved by the Board. PAF involves mixing paste from surface with waste crushed underground for stope fill and allows waste to be disposed of underground, boosting truck productivity. PAF also allows faster stope filling and therefore reduces stope cycle times.
- > Expediting PAF for use during ventilation shaft construction will allow underground disposal of raisebore chippings, significantly reducing the impact of the project on ongoing production and greatly enhancing overall project value.
- > The Board has approved project readiness and early works expenditure including detailed engineering, hiring project staff, engaging with vendors and commencing underground development. Key cost and schedule estimates for Gwalia Extension Project include<sup>1</sup>:
  - > capital cost for Ventilation project of A\$70 to \$75 million and PAF project of A\$15 to \$20 million
  - > construction period of two to two and a half years
  - > expenditure of A\$6 million in the March 2017 quarter.
- > The final project cost and schedule will depend on several factors including availability of raisebore machines and the result of further geotechnical studies.
- > The current mine plan extends to 1,940 mbs in FY 2024. Should the current drilling program identify sufficient resources below 2,000 mbs, the Study defines additional infrastructure that could extend ventilation from 2,000 mbs to allow mining to 2,200 mbs at a cost of between A\$30 to A\$35 million.
- > The 'Gwalia Extension Project' demonstrates a robust financial return that justifies advancing the early works outlined above. Project costs and schedules to support mining to 2,000 mbs are in preparation with intended submission to the Board for capital expenditure approval by the end of March 2017.

1 See page 6 for full details

## Finance (unaudited)

- > The Company moved to a net-cash<sup>2</sup> position during the quarter, and finished the quarter at A\$31 million net-cash (not including gold inventory). After debt repayments and interest of A\$130 million during the quarter, total cash at bank at 31 December 2016 was A\$87 million<sup>3</sup> (30 September 2016: A\$154 million). In addition, there was 14,538 ounces of gold inventory on hand at 31 December 2016.
- > As announced on 19 December 2016, a further US\$20 million principal<sup>4</sup> of US Notes will be repurchased on 20 January 2017. The remaining US\$20 million (~A\$27 million<sup>5</sup>) of US Notes is anticipated to be repurchased later in Q3 March 2017.
- > As announced on 4 January 2017, Standard and Poor's lifted the company's financial rating from B to B+ with a stable outlook.

## Outlook

- > Guidance for FY17 has been revised upwards and is summarised as follows:
  - > Forecast Gwalia (Leonora) gold production of between 255,000 and 265,000 ounces (previously 245,000 to 265,000 ounces) at an AISC of between A\$815 and A\$850 per ounce (previously A\$850 to A\$910 per ounce), with sustaining capex of between A\$32 and A\$35 million (previously A\$30 to A\$35 million), plus growth capex of between A\$12 to A\$15 million (previously A\$10 to A\$12 million).
  - > Forecast Simberi gold production is unchanged at between 95,000 and 105,000 ounces at an AISC of between A\$1,330 and A\$1,490 per ounce (derived from AISC in Simberi's functional currency of between US\$1,000 to US\$1,120 per ounce), with capex of between A\$4 and A\$5 million (previously A\$5 to A\$6 million).
  - > Forecast exploration expenditure is unchanged at between A\$18 and A\$22 million, consisting of:
    - > A\$10 to A\$12 million at Gwalia
    - > A\$8 to A\$10 million split approximately 30% at Pinjin in WA and 70% on the Simberi Island group in PNG.

**Bob Vassie**  
Managing Director and CEO  
18 January 2017

2 Non-IFRS measure, equivalent to cash and cash equivalents less current and non-current interest bearing borrowings

3 Financial information unaudited

4 US\$21 million (~A\$28 million) in total consisting of principal repayment, premium and accrued interest.

5 Translated at indicative A\$1.00 = US\$0.74

## St Barbara Gold Production & Guidance

Production Summary Consolidated		Q4 Jun FY16	Year FY16	Q1 Sep FY17	Q2 Dec FY17	Guidance FY17 <sup>3</sup>
<b>Production</b>						
Gwalia	oz	65,098	267,166	67,118	70,925	255 to 265 koz <i>(previously 245 to 265 koz<sup>3</sup>)</i>
King of the Hills <sup>4</sup>	oz	-	9,112	-	-	-
Simberi	oz	26,935	110,286	25,429	28,057	95 to 105 koz
<b>Consolidated</b>	<b>oz</b>	<b>92,033</b>	<b>386,564</b>	<b>92,547</b>	<b>98,982</b>	<b>350 to 370 koz</b> <i>(previously 340 to 370 koz<sup>3</sup>)</i>
<b>Mined Grade</b>						
						<b>Reserve grade<sup>2</sup></b>
Gwalia	g/t	9.3	9.3	10.4	11.9	8.3
Simberi	g/t	1.18	1.26	1.05	1.13	1.3
<b>Total Cash Operating Costs<sup>1</sup></b>						
Gwalia	\$/oz	638	609	580	546	n/a
King of the Hills <sup>4</sup>	\$/oz	-	893	-	-	-
Simberi	\$/oz	1,164	1,143	1,247	1,161	n/a
<b>Consolidated</b>	<b>\$/oz</b>	<b>792</b>	<b>768</b>	<b>763</b>	<b>721</b>	
<b>All-In Sustaining Cost<sup>1</sup></b>						
Gwalia	\$/oz	836	783	774	716	815 to 850 <i>(previously 850 to 910<sup>3</sup>)</i>
King of the Hills <sup>4</sup>	\$/oz	-	964	-	-	-
Simberi	\$/oz	1,266	1,293	1,359	1,277	1,330 to 1,490
<b>Consolidated</b>	<b>\$/oz</b>	<b>960</b>	<b>933</b>	<b>935</b>	<b>876</b>	<b>950 to 1,030</b> <i>(previously 985 to 1,075<sup>3</sup>)</i>

[1] Non-IFRS measure, refer Appendix.

[2] Ore Reserve grade at 30 June 2016, refer Ore Reserve and Mineral Resources Statement (released 23 August 2016).

[3] FY17 guidance announced in Q4 June 2016 quarterly report (released 19 July 2016), Gwalia updated this quarter.

[4] King of the Hills ceased mining in April 2015 and ceased processing in September 2015.

It was sold in October 2015 (refer ASX announcement 16 October 2015).

### Disclaimer

This report has been prepared by St Barbara Limited ("Company"). The material contained in this report is for information purposes only. This release is not an offer or invitation for subscription or purchase of, or a recommendation in relation to, securities in the Company and neither this release nor anything contained in it shall form the basis of any contract or commitment.

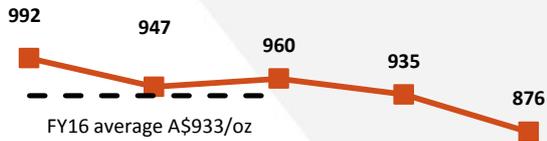
This report contains forward-looking statements that are subject to risk factors associated with exploring for, developing, mining, processing and the sale of gold. Forward-looking statements include those containing such words as anticipate, estimates, forecasts, indicative, should, will, would, expects, plans or similar expressions. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, and which could cause actual results or

trends to differ materially from those expressed in this report. Actual results may vary from the information in this report. The Company does not make, and this report should not be relied upon as, any representation or warranty as to the accuracy, or reasonableness, of such statements or assumptions. Investors are cautioned not to place undue reliance on such statements.

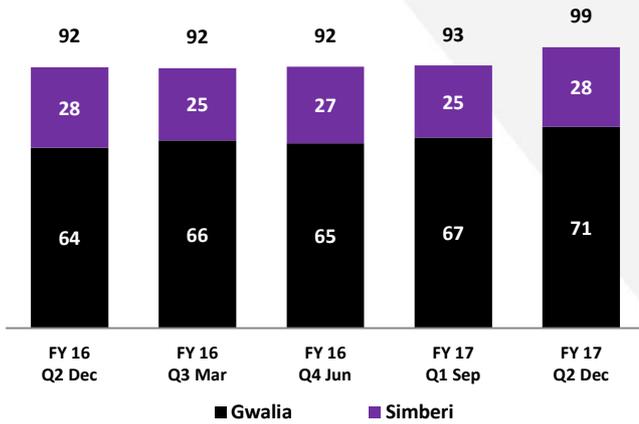
This report has been prepared by the Company based on information available to it, including information from third parties, and has not been independently verified. No representation or warranty, express or implied, is made as to the fairness, accuracy or completeness of the information or opinions contained in this report.

The Company estimates its reserves and resources in accordance with the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves 2012 Edition ("JORC Code"), which governs such disclosures by companies listed on the Australian Securities Exchange.

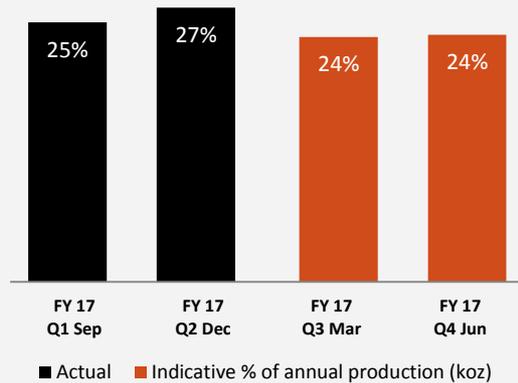
**AISC (Consolidated)**  
(A\$/oz)



**Gold Production**  
(koz)



**FY17 Production**  
**Indicative Quarterly Guidance Profile**



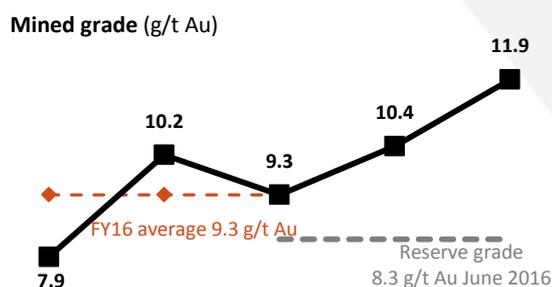
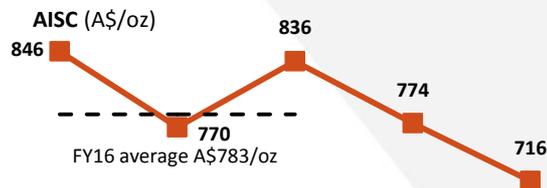
Figures displayed to nearest thousand ounces. Reported ounces in associated table

**Presentation on quarterly report and audio webcast**

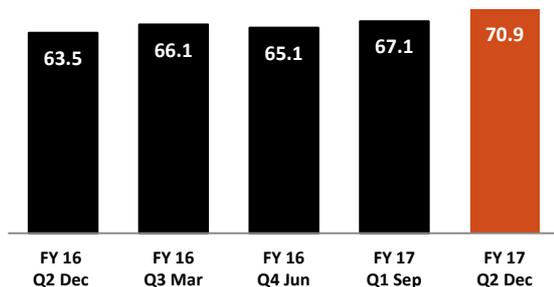
Bob Vassie, Managing Director & CEO, will brief analysts and institutional investors on the December 2016 Quarterly Report at 11:00 am Australian Eastern Daylight Time (UTC + 11 hours) on Wednesday 18 January 2017. Participation on the conference call is by personal invitation only.

A live audio webcast of the briefing will be available on St Barbara's website at [www.stbarbara.com.au/investors/webcast/](http://www.stbarbara.com.au/investors/webcast/) or by [clicking here](#). The audio webcast is 'listen only' and does not enable questions. The audio webcast will subsequently be made available on the website.

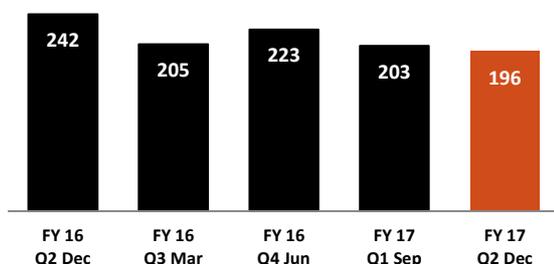
## Gwalia, Leonora, WA



### Production (koz)



### Gwalia underground ore mined (kt)



## Operations

- > Gwalia gold production for the December 2016 quarter was 70,925 ounces (Q1 Sep: 67,118 ounces).
- > Average mined grade for the quarter was 11.9 g/t Au (Q1 Sep: 10.4 g/t Au), which was higher than grade control drilling modelling predicted due to the presence of high grade shoots. An average mined grade of ~9.0 g/t Au is anticipated for Q3 March and Q4 June 2017.
- > Mined tonnes decreased in the quarter due to a combination of precision blasting giving lower dilution early in the quarter, and delays with blasting key stopes in December 2016 resulting from a change in explosives supplier, which is now complete.
- > All In Sustaining Cost (AISC) was A\$716 per ounce for the quarter (Q1 Sep: A\$774 per ounce), an improvement on the previous quarter primarily due to the higher grade mined.

## Outlook

- > FY17 guidance has been revised upwards due to above target production in the first half of the financial year as follows:
  - > Production of between 255,000 and 265,000 ounces (previously 245,000 to 265,000 ounces)
  - > AISC of between A\$815 and A\$850 per ounce (previously A\$850 to A\$910 per ounce)
  - > Capital expenditure comprising:
    - > Sustaining capex: \$32 to \$35 million (previously \$30 to \$35 million), plus
    - > Growth capex: \$12 to \$15 million (previously \$10 to \$12 million), increased due to Gwalia Extension Project early works set out below.

Production Summary		Q4 Jun	Q1 Sep	Q2 Dec
Gwalia		FY16	FY17	FY17
Underground ore mined	kt	223	203	196
Grade	g/t	9.3	10.4	11.9
Ore milled <sup>[1]</sup>	kt	233	215	201
Grade <sup>[1]</sup>	g/t	9.0	10.0	11.3
Recovery	%	97	97	97
<b>Gold production</b>	<b>oz</b>	<b>65,098</b>	<b>67,118</b>	<b>70,925</b>
<b>All-In Sustaining Cost <sup>[2]</sup></b>		A\$ per ounce		
Mining		408	373	359
Processing		123	109	111
Site services		69	55	58
Stripping and ore inventory adjustments		(3)	2	(20)
		<b>597</b>	<b>539</b>	<b>508</b>
By-product credits		(2)	(2)	(2)
Third party refining & transport		1	1	1
Royalties		42	42	39
<b>Total cash operating costs</b>		<b>638</b>	<b>580</b>	<b>546</b>
less operating development		(63)	(82)	(84)
<b>Adjusted cash operating cost</b>		<b>575</b>	<b>498</b>	<b>462</b>
Corporate and administration		51	53	50
Corporate royalty		26	25	25
Rehabilitation		3	4	3
Capitalised mine & op development		135	163	161
Sustaining capital expenditure		46	31	15
<b>All-In Sustaining Cost (AISC)</b>		<b>836</b>	<b>774</b>	<b>716</b>

[1] Includes Gwalia mineralised waste

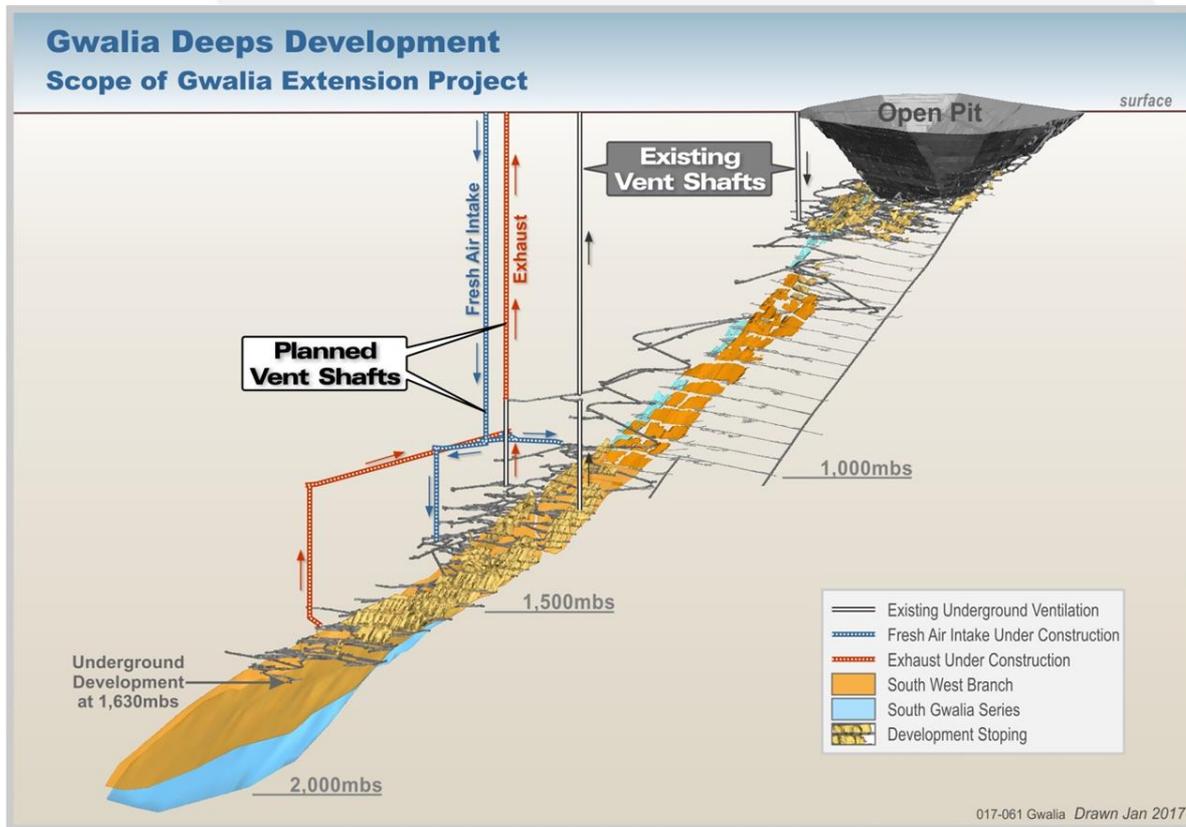
[2] Non-IFRS measure, refer Appendix

### Gwalia Extension Project – Ventilation Upgrade and Paste Aggregate Fill (PAF) Studies

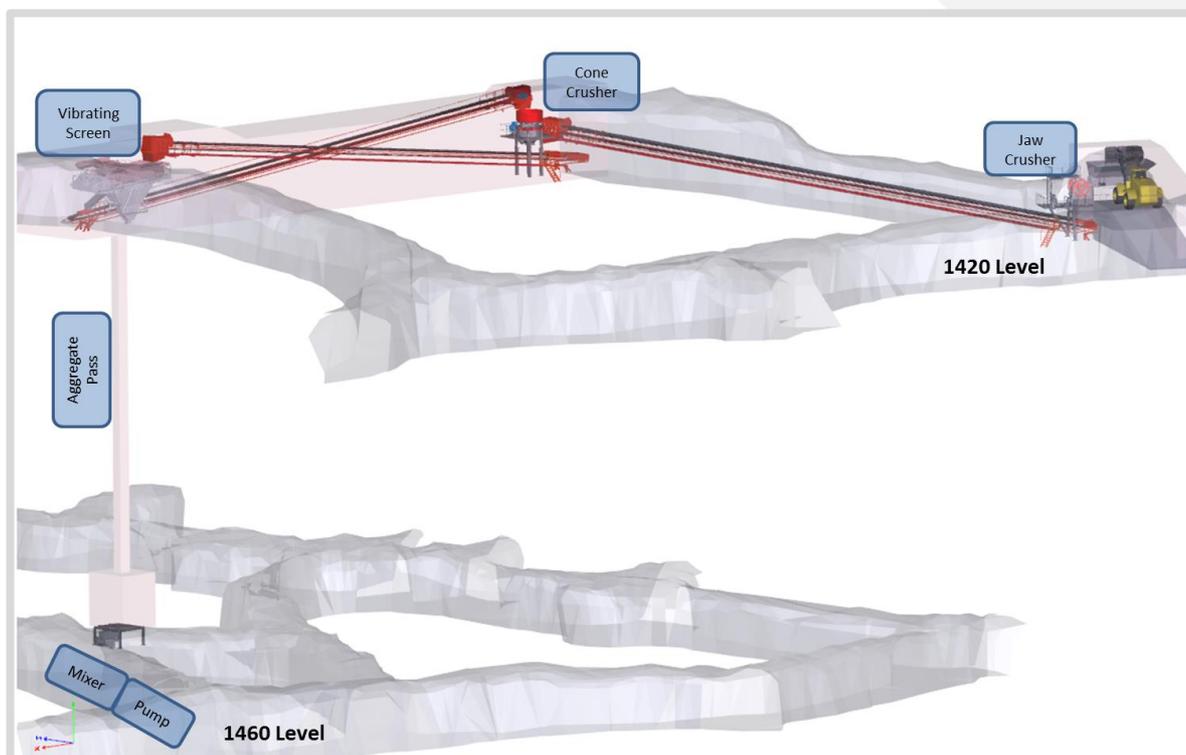
- > The Feasibility Study to increase ventilation at Gwalia announced in August 2016 has been completed and approved by the Board. The ventilation upgrade project provides the additional ventilation needed to mine between 1,800 and 2,000 metres below surface (mbs), through two new raisebored ventilation shafts, and includes underground development, additional fans and chilling, and associated surface infrastructure. The study identified raiseboring as the primary project execution risk.

- > The Board has approved project readiness and early works expenditure including developing a detailed execution plan, engaging with vendors, hiring project staff and commencing underground development, with anticipated expenditure of A\$3 million in the March 2017 quarter.
- > The final project cost and schedule will depend on several factors, including availability of raisebore machines and the result of further geotechnical studies. The Feasibility Study indicates a capital cost of between A\$70 to A\$75 million over a construction period of two to two and a half years, with the schedule mostly dependant on raiseboring machine availability.
- > The current mine plan extends to 1,940 mbs in FY 2024. Should the current drilling program identify sufficient resources below 2,000 mbs, the Study defines additional infrastructure that could extend ventilation from 2,000 mbs to allow mining to 2,200 mbs at a cost of between A\$30 to A\$35 million.
- > A Feasibility Study on Paste Aggregate Fill (PAF) has also been completed and approved by the Board. PAF allows waste to be disposed underground by crushing and mixing raisebore chippings and development waste (including the extra waste generated from the ventilation project) with existing paste. This would allow waste to be disposed of underground and therefore allow truck capacity to be utilised on ore haulage to surface. PAF also allows faster stope filling and therefore reduces stope cycle times. Expediting PAF for it to be used in conjunction with the ventilation upgrade greatly enhances total project value. The PAF Feasibility Study indicates a capital cost of between A\$15 to A\$20 million to be incurred over the next year.
- > Detailed engineering design work and testing has commenced to inform equipment selection and configuration for the mixing and pumping components of this innovative solution, with an anticipated expenditure of A\$3 million in the March 2017 quarter, which includes some underground development. As with the ventilation project, project cost and schedule will depend on availability of raiseboring equipment and final equipment specification and sourcing.
- > The 'Gwalia Extension Project' demonstrates a robust financial return that justifies advancing the early works outlined above. Project costs and schedules to support mining to 2,000 mbs are in preparation with intended submission to the Board for capital expenditure approval by the end of March 2017.

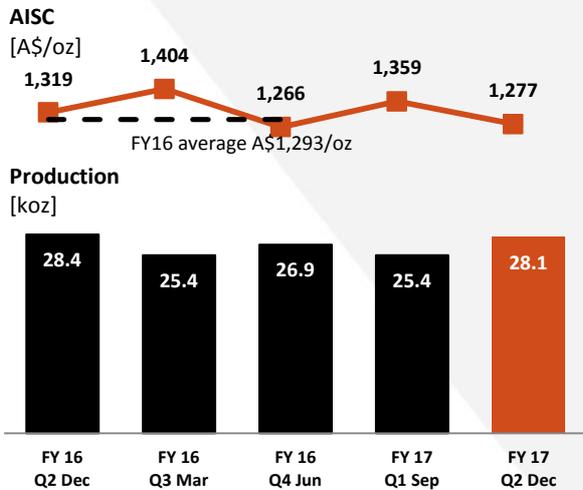
## Gwalia Extension Project – Ventilation Upgrade



## Gwalia Extension Project – PAF Isometric Fixed Plant View



## Simberi, Papua New Guinea



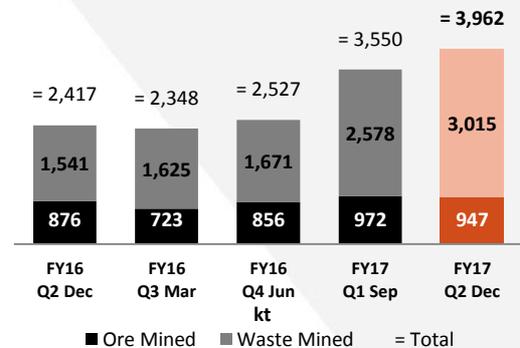
Production Summary		Q4 Jun	Q1 Sep	Q2 Dec
Simberi		FY16	FY17	FY17
Total ore & waste mined	kt	2,527	3,550	3,962
Ore mined	kt	856	972	947
Grade	g/t	1.18	1.05	1.13
Ore milled	kt	881	967	924
Grade	g/t	1.17	1.06	1.14
Recovery	%	81	77	83
<b>Gold production</b>	<b>oz</b>	<b>26,935</b>	<b>25,429</b>	<b>28,057</b>
<b>All-In Sustaining Cost</b> <sup>[1]</sup>		A\$ per ounce		
Mining		401	443	425
Processing		460	479	446
Site services		258	274	250
Stripping and ore inventory adjustments		-	-	-
		<b>1,119</b>	<b>1,196</b>	<b>1,121</b>
By-product credits		-	-	-
Third party refining & transport		11	11	9
Royalties		34	40	31
<b>Total cash operating costs</b>		<b>1,164</b>	<b>1,247</b>	<b>1,161</b>
Corporate and administration		51	53	50
Rehabilitation		14	20	13
Capitalised mine & op development		-	-	-
Sustaining capital expenditure		37	39	53
<b>All-In Sustaining Cost (AISC)</b>		<b>1,266</b>	<b>1,359</b>	<b>1,277</b>

[1] Non-IFRS measure, refer Appendix

## Operations

- > Simberi produced 28,057 ounces of gold during the quarter (Q1 Sep: 25,249 ounces)
- > Total material moved for the quarter was a new record at 4.0 million tonnes, exceeding by 12% the previous record of 3.6 Mt set in the previous quarter.
- > Simberi All-In Sustaining Cost (AISC) per ounce fell to A\$1,277 (Q1 Sep: A\$1,359) due to higher grade and recovery, partially offset by the A\$ depreciating against the US\$<sup>1</sup>, which is the Simberi functional currency.
- > The mining sequence moved back to Sorowa and Pigiput pits during the quarter as increased waste stripping uncovered ore in these pits of higher grade and recovery. Combined with improvement in mining controls and processing, grade and recovery returned to approximately the average levels achieved in FY16.
- > Strip ratio increased to 3.2:1 for the quarter (Q1 Sep: 2.7:1), whilst opening up of new mining fronts in the long term mining areas Pigiput and Sorowar. The long term strip ratio of 2.6:1 will reduce towards the end of mine life.

## Simberi Ore & Waste Mined



## Outlook

- > FY17 guidance is maintained as follows:
  - > Production of between 95,000 and 105,000 ounces
  - > AISC of between A\$1,330 and A\$1,490 per ounce (derived from AISC in the Simberi's functional currency of between US\$1,000 to US\$1,120)
  - > Capex of between A\$4 and A\$5 million (previously A\$5 to A\$6 million).

1 FX: Q1 Sep 2016 average: A\$=US\$0.7584, Q2 Dec 2016 average: A\$=US\$0.7491 (Reuters)

## Exploration – Results December 2016 Quarter

### Gwalia Exploration Program, Leonora WA

---

- > **Gwalia Deeps Extension:** Resource extension drilling at Gwalia has continued with the objective of increasing the Gwalia Mineral Resource to the north and below 2,000 mbs.
- > The surface drilling program, targeting extensions to the Gwalia lode system below 2,000 mbs, continued with the successful completion of daughter holes GWDD18B and GWDD18C which entered the Mine Sequence at a depth of approximately 2,050 mbs and passed through intervals interpreted to represent South West Branch (SWB) and South Gwalia Series (SGS2), intersecting 88m and 81m of Mine Sequence respectively. In both cases intervals of mineralisation interpreted to represent extensions of South West Branch (SWB) and South Gwalia Series (SGS2) were identified (Refer to Figure 1.0 in the Exploration Figures and Tables appendix).
- > Significant intercepts are indicated below with full details set out in Figures 2.1, 2.2 and Table 1 in the Exploration Figures and Tables appendix.

#### GWDD18B:

- > SWB 1.5m @ 8.2 g/t Au from 2,263m
- > SGS2 11.6m @ 8.6 g/t Au from 2,324m  
including: 3.0m @ 23.5 g/t Au from 2,333m

#### GWDD18C:

- > SWB 2.7m @ 13.9 g/t Au from 2,248m
- > SGS2 4.9m @ 8.5 g/t Au from 2,286m  
including: 1.1m @ 31.2 g/t Au from 2,289m

- > Following on from the encouraging results returned from this phase of work a more extensive program was initiated with the objective of extending the Mineral Resource below 2,000 mbs.
- > This program commenced with the drilling of three new daughter holes GWDD130, GWDD17F and GWDD18D, which at the end of the period had reached downhole depths of 2,135m, 1,612m and 2,058m respectively.
- > Further drilling comprising ten additional daughter holes is scheduled to be completed during Q3 FY17.
- > **Northern Extension:** A surface drilling program targeting northern additions to the Gwalia Lode system between 1,600 to 1,700 mbs continued with the completion of three daughter holes from a pre-existing parent hole.
- > Drill holes GWDD10C and GWDD10D successfully intersected 130m and 75m of mineralised Mine Sequence respectively, each with intervals of mineralisation interpreted to represent extensions of Main Lode (MNL) and South West Branch (SWB). Drill hole GWDD10E passed

through 103m of mineralised Mine Sequence (corresponding to approximately 80m of true thickness) returning an intersection of Main Lode (MNL) (details in Figures 2.1, 2.2 and Table 2):

#### GWDD10C:

- > MNL 2.0m @ 1.6 g/t Au from 1,652m
- > SWB 1.3m @ 1.6 g/t Au from 1,674m

#### GWDD10D:

- > MNL 3.5m @ 2.7 g/t Au from 1,636m
- > SWB 3.9m @ 1.2 g/t Au from 1,653m

#### GWDD10E:

- > MNL 1.6m @ 4.4 g/t Au from 1,632m

This phase of Northern extension drilling has concluded pending the results of the 3D seismic survey being undertaken in Q3 March 2017.

- > **Gwalia Seismic Reflection Program:** A full waveform sonic logging (FWS) and vertical seismic profiling (VSP) was conducted in three existing drill holes (GWDD11N, GWDD17E and GWDD18C). Results from this phase of work, in conjunction with 2D data reprocessing, confirmed the strong reflective nature of the Gwalia Mine Sequence. Analysis of the data concluded that:
  - > The mafic schist unit (Msc) is one of the strongest reflectors observed in VSP data;
  - > Strong reflections are characteristic of contacts between intensively altered ultramafic and mafic units; and
  - > Stratigraphic boundaries and reflectors show a good correlation.
- > Further evaluation of extensions to the Gwalia Shear Zone will be undertaken through a 3D seismic geophysical program during Q3 March 2017.

### Pinjin Project, Yilgarn WA

---

- > Exploration continued on the Pinjin project within the Yilgarn Province, WA. The Pinjin Project is located 150 km northeast of Kalgoorlie, comprising a large tenement package of 20 exploration licences (1,358 km<sup>2</sup>) for 485 blocks (Figure 3.0).
- > A Reverse Circulation (RC) drilling program comprising 22 holes (PJRC0001 to PJRC0022) for 3,329 metres was completed in the December 2016 quarter (Figure 3.1). The RC drilling targeted two gold in bedrock geochemical anomalies defined by aircore drilling completed in the June and September 2016 quarters. Preliminary 4 metre composite results have been received with the best in-situ bedrock result of 8m @ 0.7 g/t Au from 81m in hole PJRC0002 (details in Figure 3.3 and Table 3).
- > A 290 hole 17,000 metre aircore drill program will commence early in the March 2017 quarter. The drilling will test 5 targets, including further follow-up of the

encouraging early stage aircore results reported in the September 2016 quarter.

#### **Back Creek, NSW (EL 8214 and ELA5392)**

---

- > A 3,776 line kilometre airborne geophysical survey was completed over Back Creek EL8214 in central NSW, during the December 2016 quarter. Data processing and image generation will be completed early in the March 2017 quarter.
- > A 3 sub-block application ELA5392 was submitted for vacant ground adjacent to EL8214 (Figure 4.0).

#### **Simberi, Tatau & Tabar Islands, Papua New Guinea (ML 136 and EL 609)**

---

- > Exploration continued on EL609 at Tatau Island during the December quarter (Figure 5.0). Trenching, mapping and drilling continued at Southwest Tatau targeting the Nepewo and Mt Tiro prospects.

##### **Tatau Island**

- > An airborne LiDAR (Light Detection and Ranging) survey was completed over Tatau Island and part of Big Tabar Island to provide an accurate and detailed topographic map to support regional exploration.
- > The single 530 metre diamond drill hole (TTD061) completed at the Mt Letam Au-Cu porphyry prospect returned 6m @ 1.4 g/t Au from 1m (Figure 5.1 and Table 4). The overlapping chargeability and resistivity anomaly associated with 180 metres of moderate to strong phyllic altered dolerite from 300 metres depth, containing ≥2% disseminated sulphides returned no significant results.
- > A trenching and mapping program continued at Southwest Tatau to identify the number and determine the strike length of potential narrow high grade mineralised trends. 22 trenches (TATTR207 to TATTR228) were completed during the December quarter for 2,042 metres and 406 samples. The trench sampling results received for TATTR201 to TATTR228 are highlighted in Figure 5.2 and include:
  - > TATTR207 20m @ 1.7 g/t Au, including  
5m @ 4.2 g/t Au
  - > TATTR209 15m @ 2.5 g/t Au
  - > TATTR210 20m @ 2.6 g/t Au, including  
5m @ 7.0 g/t Au
  - > TATTR215 5m @ 12.0 g/t Au

- > TATTR217\* 35m @ 9.6 g/t Au, including  
5m @ 52.8 g/t Au, and  
15m @ 1.7 g/t Au, including  
5m @ 3.6 g/t Au

\* Note that TATTR217 was sampled at a low angle across the trend to mineralisation and is not representative of true width.

- > TATTR228 40m @ 1.6 g/t Au, and  
5m @ 7.4 g/t Au
- > A diamond drill program at **Southwest Tatau** targeting narrow, high-grade, sulphide-oxide gold targets identified by previous trenching continued through the December 2016 quarter. Eight diamond holes (TTD063 to TTD070) for 973 metres were completed in the December 2016 quarter, bringing the total to 9 holes drilled for 1,092 metres in total.
- > Assay results for 5 previous diamond drill holes (TTD062 to TTD066) testing the **Nepewo** prospect returned no significant results and have closed off mineralisation along strike to the northwest and southeast (Table 4).
- > The 4 sub-block application EL2462 was granted on 15 November 2016 (Figure 5.0).

#### **Option and Farm-in with Newcrest, Tatau & Tabar Islands, Papua New Guinea**

---

- > The St Barbara group (through its wholly owned PNG subsidiary Nord Australex Nominees (PNG) Ltd) has entered into an Option and Farm-in Agreement with Newcrest PNG Exploration Limited (a wholly owned subsidiary of Newcrest Mining Limited) for copper-gold porphyry exploration within EL609 and EL2462 on nearby Tatau and Big Tabar Islands.
- > As part of the work program, a regional soil and rock chip sampling survey has been designed to cover six porphyry Cu-Au targets on central Tatau and parts of Big Tabar Island. The initial phase of the program includes 1,100 samples to be collected on a 200m x 200m offset grid. Initial fly camps have been constructed, access cleared and selected sample sites pegged in preparation for sampling in mid-January 2017. Sampling is expected to continue throughout the March and June 2017 quarters.
- > St Barbara expenditure on the Option and Farm-in agreement will be up to A\$1.0 million for FY17.

### Expenditure December Quarter (unaudited)

- > Expenditure on mineral exploration is shown below:

#### Q2 Dec 2016

	A\$ million	
Australia	0.7	(expensed)
Pacific	1.4	(expensed)
Gwalia Deep Drilling	2.8	(capitalised)
<b>Total</b>	<b>4.9</b>	

### Exploration – March 2017 Quarter

- > The map below shows current and planned target areas for the March 2017 quarter.



- > Exploration in the March 2017 quarter (Q3 FY17) will focus on:

- > **Gwalia Deeps Below 2,000 mbs** Continuation of the Gwalia Deeps drilling program seeking to establish a Mineral Resource below 2,000 mbs.
- > Completion of a 3D seismic survey over the **greater Gwalia** area to identify extensions to the lode system and other potential occurrences of Gwalia-style mineralisation.
- > Commencing a 290 hole 17,000 metre aircore drilling program at **Pinjin** testing five bedrock gold geochemical anomalies.
- > Continuing trenching, mapping and diamond drilling on Southwest Tatau Island targeting higher grade sulphide-oxide potential at the **Mt Tiro** prospect.

- > Completion of the digital terrain model and topographic map over **Tatau Island** to support the regional exploration program.
- > Commencing grid based regional soil sampling over copper-gold porphyry targets on **Tatau Island**. Samples are to be analysed for a suite of multi-elements.
- > Review the results of the airborne geophysical survey over **Back Creek** EL8214 to highlight areas for follow-up ground based exploration.

### Health & Safety

- > The Company-wide Total Recordable Injury Frequency Rate (TRIFR), calculated as a rolling 12 month average, continued at its record low of 1.8 to 31 December 2016.
- > The Gwalia Emergency Response team were overall winners for the second year running in The Chamber of Minerals and Energy Western Australia (CMEWA) Underground Mine Emergency Response Competition held November 2016 in Kalgoorlie.

### Finance (unaudited)

- > 95,355 ounces of gold were sold in the December quarter, at an average realised gold price of A\$1,636 per ounce (Q1 Sep: 93,893 ounces at A\$1,737 per ounce).
- > Cash at bank at 31 December 2016 was \$87 million after total debt related payments during the quarter of A\$130 million. 14,538 ounces of gold inventory was on hand at the end of the quarter, a substantial portion of which was shipped in the first week of January 2017.
- > Total interest bearing liabilities at 31 December 2016 were A\$56 million (30 Sep 2016: A\$169 million), which comprised US\$40 million senior secured notes and A\$1 million of lease liabilities. A\$/US\$ exchange rate at 31 December 2016 was 0.7217<sup>1</sup> (30 Sep 2016: 0.7674).
- > As announced on 19 December 2016, the Company will repurchase a further US\$20 million in aggregate principal of its US 144A Senior Secured Notes on 20 January 2017. The Notes will be repurchased at a 3.3% premium to par value, which is the optional redemption price effective from October 2016. Net payments for the repurchase will be approximately US\$21 million (approx. A\$28 million), consisting of principal repayment, premium and accrued interest.
- > The remaining US\$20 million US Notes are anticipated to be repurchased later in Q3 March 2017.
- > Hedging in place at the date of this quarterly report comprises:
  - > 50,000 ounces of gold forward contracts to be delivered in monthly instalments between January

1 Reuters

and June 2017 at US\$1,338 per ounce (this hedge announced 4 July 2016).

- > Cash movements for the December 2016 quarter are summarised in the following table:

<b>Cash movements &amp; balance A\$M (unaudited)</b>	<b>Q4 Jun FY16</b>	<b>Q1 Sep FY17</b>	<b>Q2 Dec FY17</b>
Leonora - operating cash flow <sup>[1]</sup>	60	64	71
Leonora - growth capital	-	-	(2)
Simberi - operating cash flow <sup>[1]</sup>	9	19	5 <sup>2</sup>
Rehabilitation , land management & project costs	-	(1)	(1)
Corporate costs	(4)	(4)	(4)
Corporate royalties	(2)	(2)	(2)
Exploration <sup>[3]</sup>	(5)	(3)	(5)
Working capital movement	3	2	1
Cash flows before finance costs	61	75	63
Net interest and finance costs	(10)	(2)	(9)
US debt repayment	(28)	(56)	(121)
Net movement for quarter	23	17	(67)
Cash balance at start of quarter	114	137	154
<b>Cash balance at end of quarter</b>	<b>137</b>	<b>154</b>	<b>87</b>

#### Senior Secured Notes US\$M

> Issued March 2013	250
> Repurchased FY15	(54)
> Repurchased FY16	<u>(28)</u>
> <b>Balance remaining at 30 June 2016</b>	<b><u>168</u></b>
> Repurchased Q1 Sep 2016	(40)
> Repurchased Q2 Dec 2016	<u>(88)</u>
> <b>Balance remaining at 31 Dec 2016</b>	<b><u>40</u></b>
> Repurchase due 20 Jan 2017	<u>(20)</u>
> <b>Balance anticipated at 20 Jan 2017</b>	<b><u>20</u></b>
> Coupon	8.875% p.a.
> Redemption date	15 April 2018
> S&P rating	B+
> Moody's rating	B2

1 Net of sustaining capex

2 As at 31 December 2016 there was 6,311 ounces of gold inventory at Simberi that was shipped on 1 January 2017

3 Includes Gwalia deep drilling

## Corporate

### Share Capital

#### Issued shares

Opening balance 30 Sep 2016	<b>497,331,095</b>
Issued	nil
<b>Closing balance 31 Dec 2016</b>	<b>497,331,095</b>

#### Unlisted employee rights

Opening balance 30 Sep 2016	<b>19,927,645</b>
Issued <sup>4</sup>	1,034,276
Vested	nil
Lapsed	nil
<b>Closing balance 31 Dec 2016</b>	<b>20,961,921</b>

Comprises rights expiring:

30 June 2017	15,953,028
30 June 2018	3,974,617
30 June 2019	1,034,276
<b>Closing balance 31 Dec 2016</b>	<b>20,961,921</b>

### ASX & ADR

The Company's shares are listed on ASX (ASX:SBM) and through American Depositary Receipts (ADR OTC: STBMY) traded in the USA.

### Scheduled Future Reporting

<u>Date</u>	<u>Report</u>
21 February	Half Year Financial Report
Late April	March 2017 Quarterly Report

[Dates are tentative and subject to change]

4 Refer ASX Appendix 3B 21 Oct 2016 and 12 Dec 2016

## Corporate Directory

**St Barbara Limited** ABN 36 009 165 066

### Board of Directors

Tim Netscher ..... Non-Executive Chairman  
Bob Vassie ..... Managing Director & CEO  
Kerry Gleeson ..... Non-Executive Director  
David Moroney ..... Non-Executive Director

### Executives

Bob Vassie ..... Managing Director & CEO  
Garth Campbell-Cowan ..... Chief Financial Officer

### Registered Office

Level 10, 432 St Kilda Road

Melbourne Victoria 3004 Australia

Telephone ..... +61 3 8660 1900

Facsimile ..... +61 3 8660 1999

Email ..... [info@stbarbara.com.au](mailto:info@stbarbara.com.au)

Website ..... [www.stbarbara.com.au](http://www.stbarbara.com.au)

Australian Securities Exchange (ASX) Listing code "SBM"

American Depositary Receipts (ADR OTC code "STBMY")  
through BNY Mellon,  
[www.adrbnymellon.com/dr\\_profile.jsp?cusip=852278100](http://www.adrbnymellon.com/dr_profile.jsp?cusip=852278100)

Financial figures are in Australian dollars (unless otherwise noted).

Financial year commences 1 July and ends 30 June.

## Shareholder Enquiries

### Computershare Investor Services Pty Ltd

GPO Box 2975

Melbourne Victoria 3001 Australia

Telephone (within Australia) ..... 1300 653 935

Telephone (international) ..... +61 3 9415 4356

Facsimile ..... +61 3 9473 2500

[www-au.computershare.com/investor](http://www-au.computershare.com/investor)

American Depositary Receipt enquires:

BNY Mellon Depositary Receipts

[www.bnymellon.com/shareowner](http://www.bnymellon.com/shareowner)

### Investor Relations Contact

Rowan Cole, Company Secretary ..... + 61 3 8660 1900

### Substantial Shareholders

	% of Holdings <sup>1</sup>
Van Eck Associates Corporation	15.7%
M&G Investment Management Ltd	8.4%
Vinva Investment Management	5.2%

<sup>1</sup> As notified by the substantial shareholders to 16 January 2017

## Appendix

### Non-IFRS Measures

- > The Company supplements its financial information reporting determined under International Financial Reporting Standards (IFRS) with certain non-IFRS financial measures, including cash operating costs and All-In Sustaining Cost. We believe that these measures provide additional meaningful information to assist management, investors and analysts in understanding the financial results and assessing our prospects for future performance.
- > Cash Operating Costs are calculated according to common mining industry practice using The Gold Institute (USA) Production Cost Standard (1999 revision).
- > All-In Sustaining Cost (AISC) is based on Cash Operating Costs, and adds items relevant to sustaining production. It includes some, but not all, of the components identified in World Gold Council's Guidance Note on Non-GAAP Metrics - All-In Sustaining Costs and All-In Costs (June 2013).
  - > AISC is calculated on gold production in the quarter.
  - > For underground mines, amortisation of operating development is adjusted from "Total Cash Operating Costs" in order to avoid duplication with cash expended on operating development in the period contained within the "Mine & Operating Development" line item.
  - > Rehabilitation is calculated as the amortisation of the rehabilitation provision on a straight-line basis over the estimated life of mine.

### Competent Persons Statement

#### Exploration Results

- > The information in this report that relates to Exploration Results for Simberi and Pinjin is based on information compiled by Dr Roger Mustard, who is a Member of The Australasian Institute of Mining and Metallurgy. Dr Mustard is a full-time employee of St Barbara and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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'. Dr Mustard consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.
- > The information in this report that relates to Exploration Results for Gwalia and the Leonora region is based on information compiled by Mr Robert Love, who is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Love is a full-time employee of St Barbara and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of

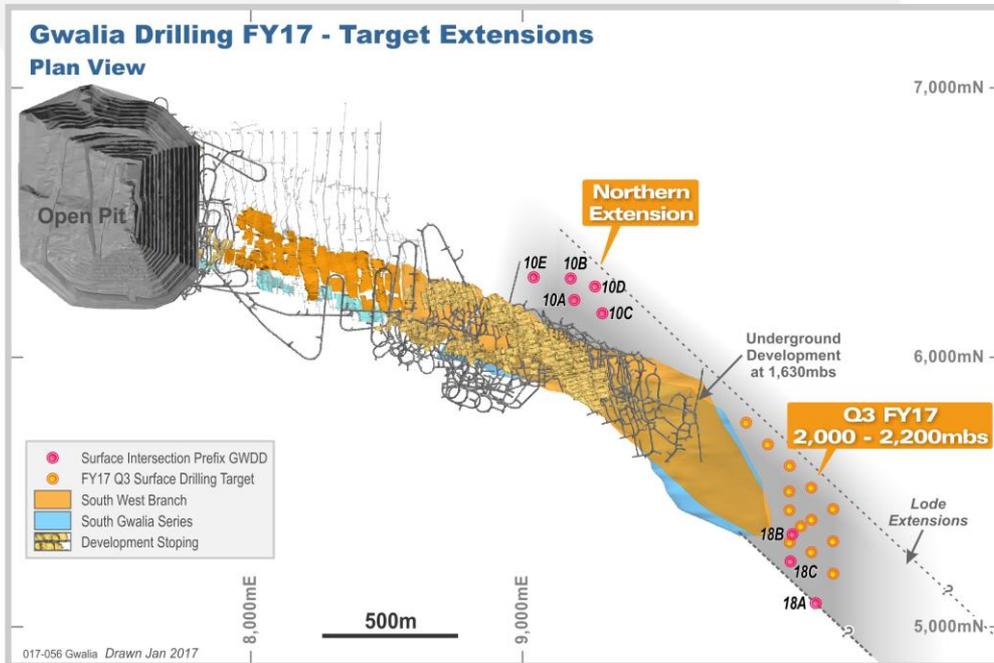
the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Love consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### Mineral Resource and Ore Reserve Estimates

- > The information in this report that relates to Mineral Resources or Ore Reserves is extracted from the report titled 'Ore Reserves and Mineral Resources Statements 30 June 2016' released to the Australian Securities Exchange (ASX) on 23 August 2016 and available to view at [www.stbarbara.com.au](http://www.stbarbara.com.au) and for which Competent Persons' consents were obtained. Each Competent Person's consent remain in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent.
- > The Company confirms that it is not aware of any new information or data that materially affects the information included in the original ASX announcement released on 23 August 2016 and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the original ASX announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original ASX announcement.
- > Competent Person Mr Tim Richards is entitled to participate in St Barbara's long term incentive plan, details of which are most recently included in the 2016 Directors' and Financial Report released to the ASX on 23 August 2016. In 2014 increase in Ore Reserves was one of the performance measures under that plan. No incentive has been paid arising from this performance measure.
- > Full details are contained in the ASX release dated 22 August 2016 'Ore Reserves and Mineral Resources Statements 30 June 2016' available at [www.stbarbara.com.au](http://www.stbarbara.com.au).

## Exploration Figures and Tables

**Figure 1.0: Leonora: Summary of Gwalia Extension Drilling, Plan View**



**Figure 2.0: Gwalia Deeps Drilling Program Q2 FY17, Cross Section (looking north)**

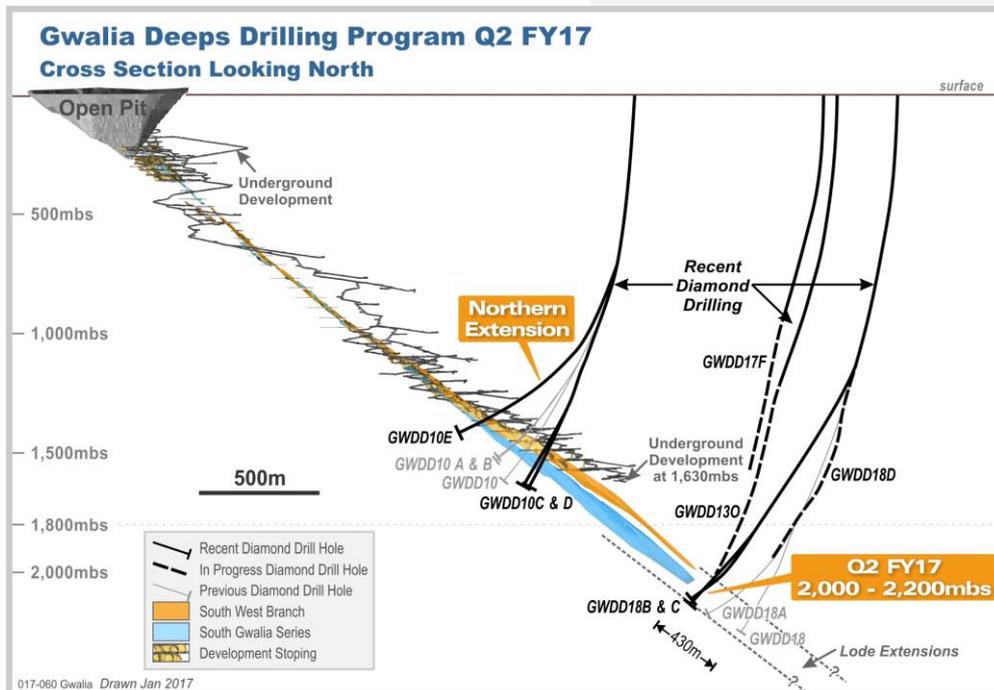


Figure 2.1: Gwalia Deeps Drilling Program Q2 FY17 Results, Long Section (looking west)

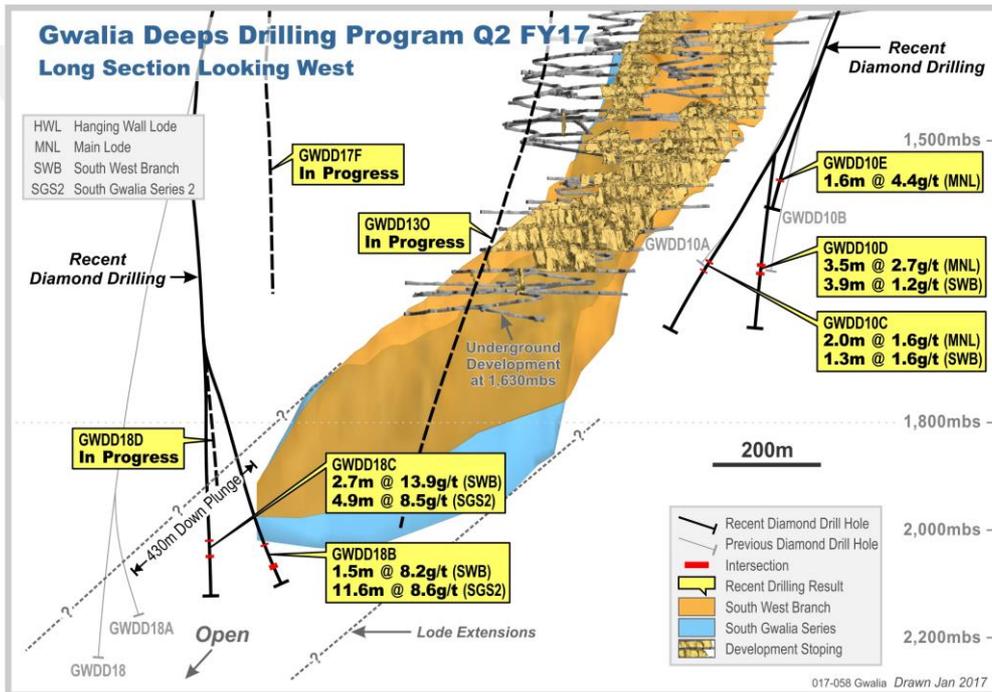
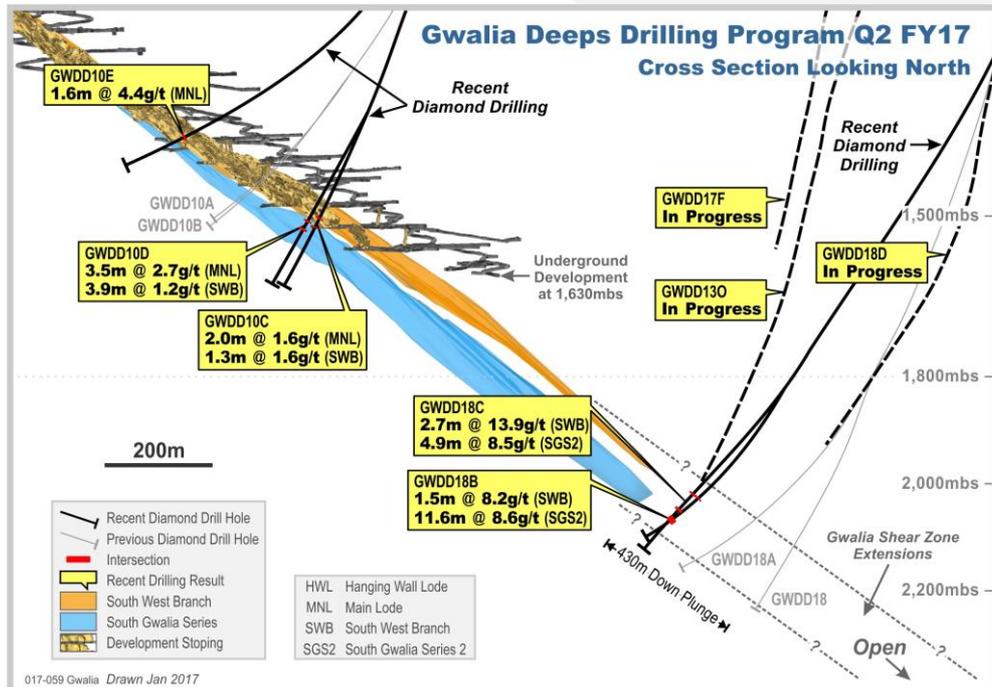
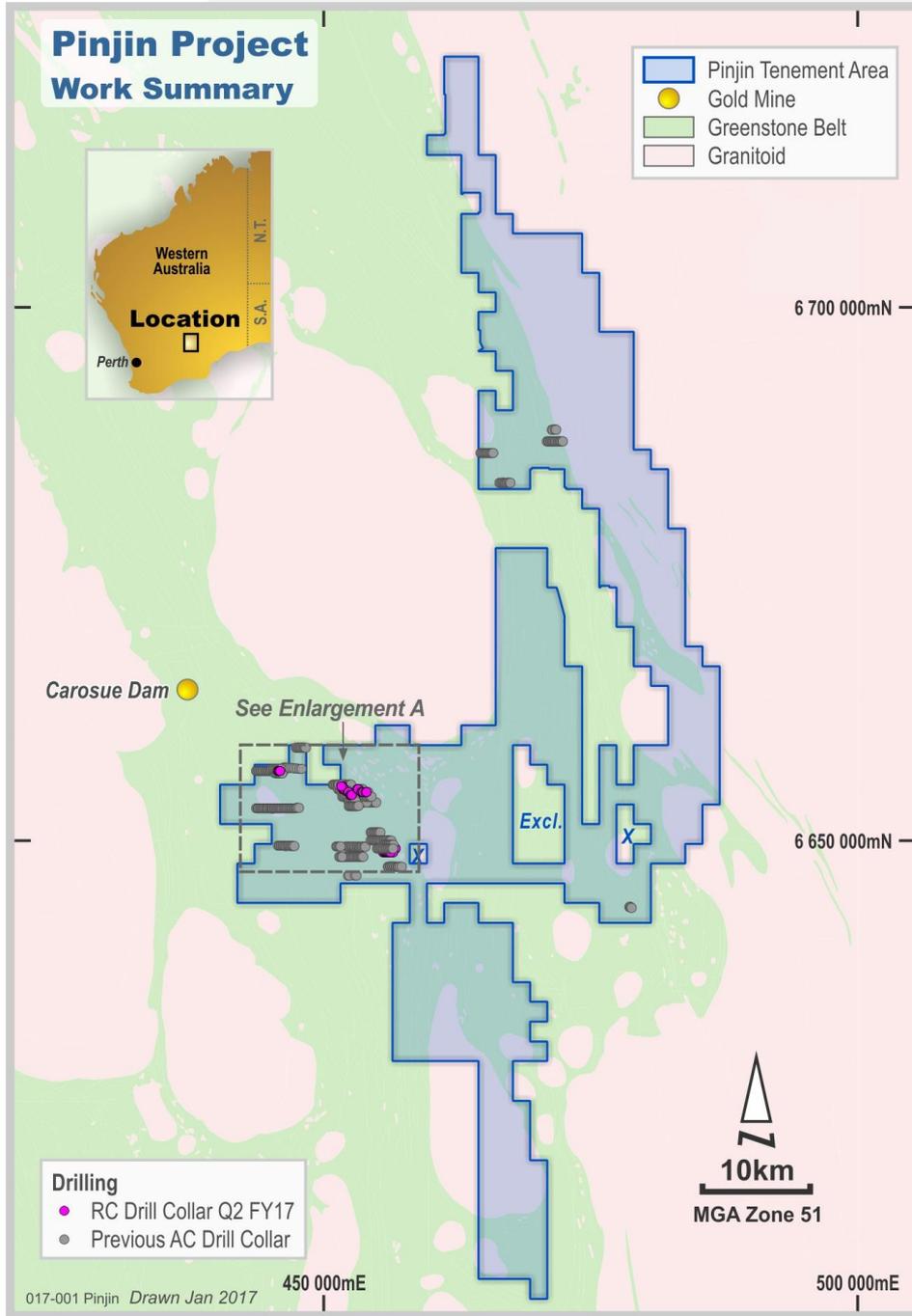


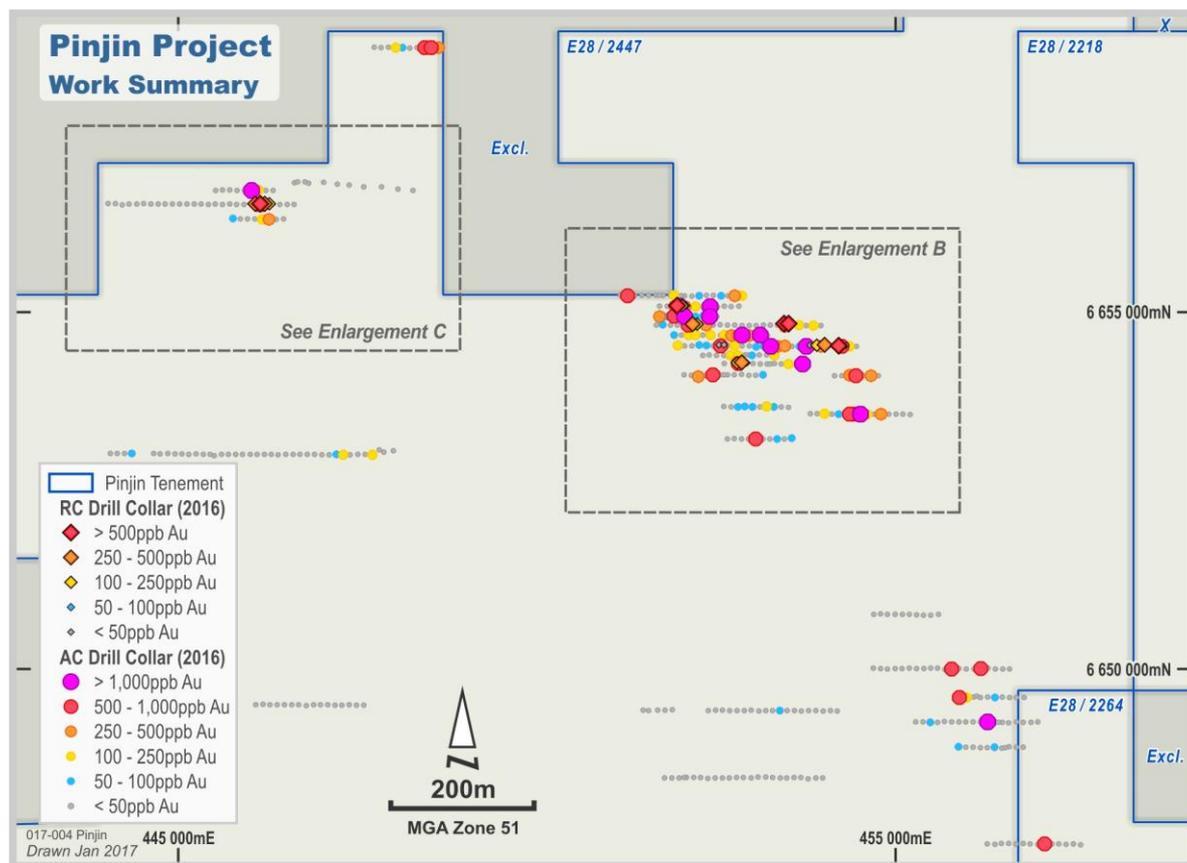
Figure 2.2: Gwalia Deeps Drilling Program Q2 FY17 Results, Cross Section (looking north)



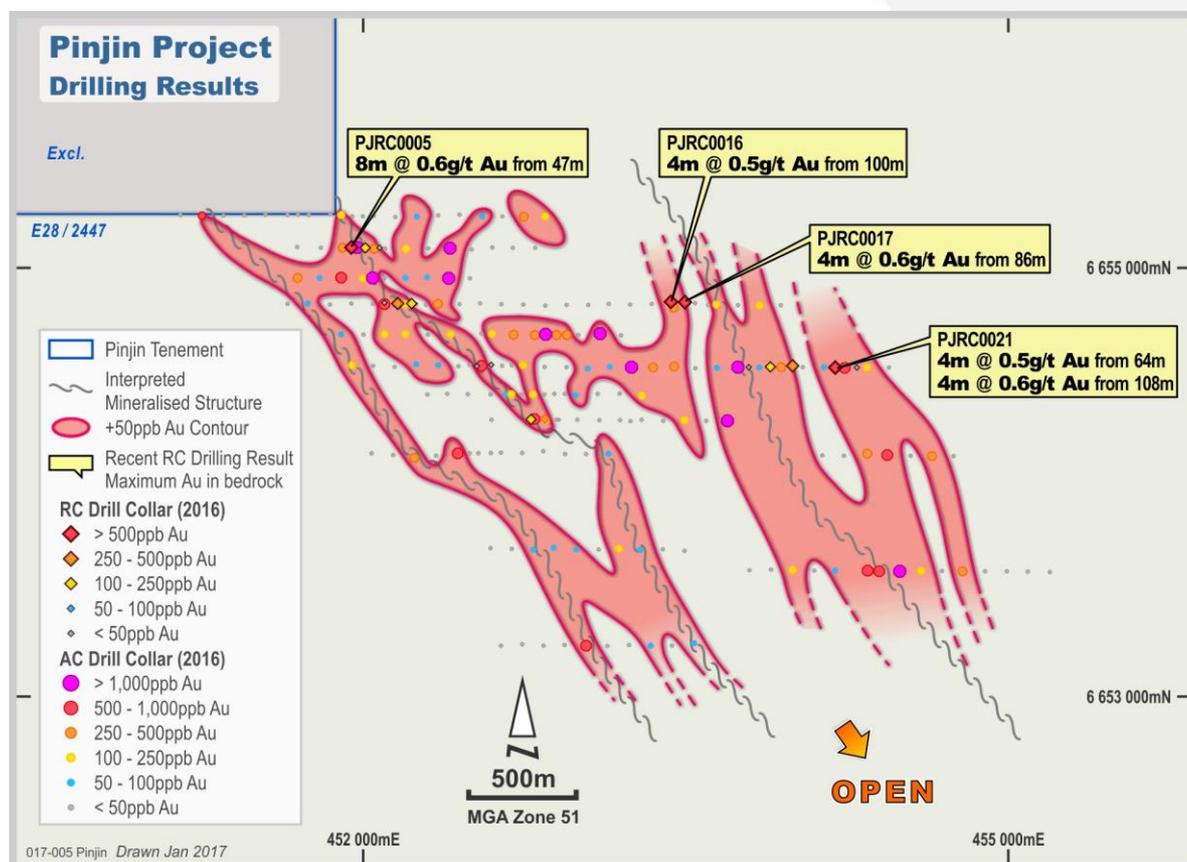
**Figure 3.0: Pinjin Project Reverse Circulation and Aircore Drilling Location Map**



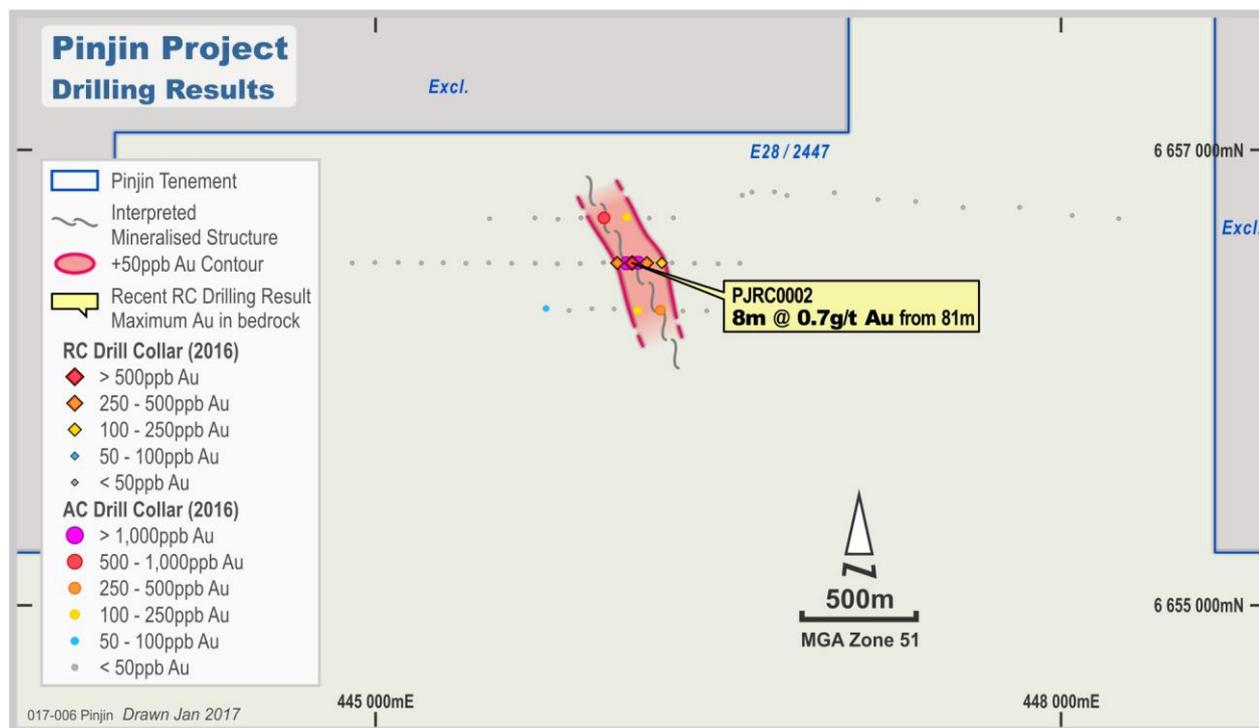
**Figure 3.1: Pinjin Project Reverse Circulation and Aircore Drilling Results Map (Enlargement A) - maximum gold in bedrock**



**Figure 3.2: Pinjin Project Reverse Circulation and Aircore Drilling Results Map (Enlargement B) - contour of maximum gold in bedrock**



**Figure 3.3: Pinjin Project Reverse Circulation and Aircore Drilling Results Map (Enlargement C) - contour of maximum gold in bedrock**



**Figure 4.0: Back Creek EL8214 and ELA5392, New South Wales**

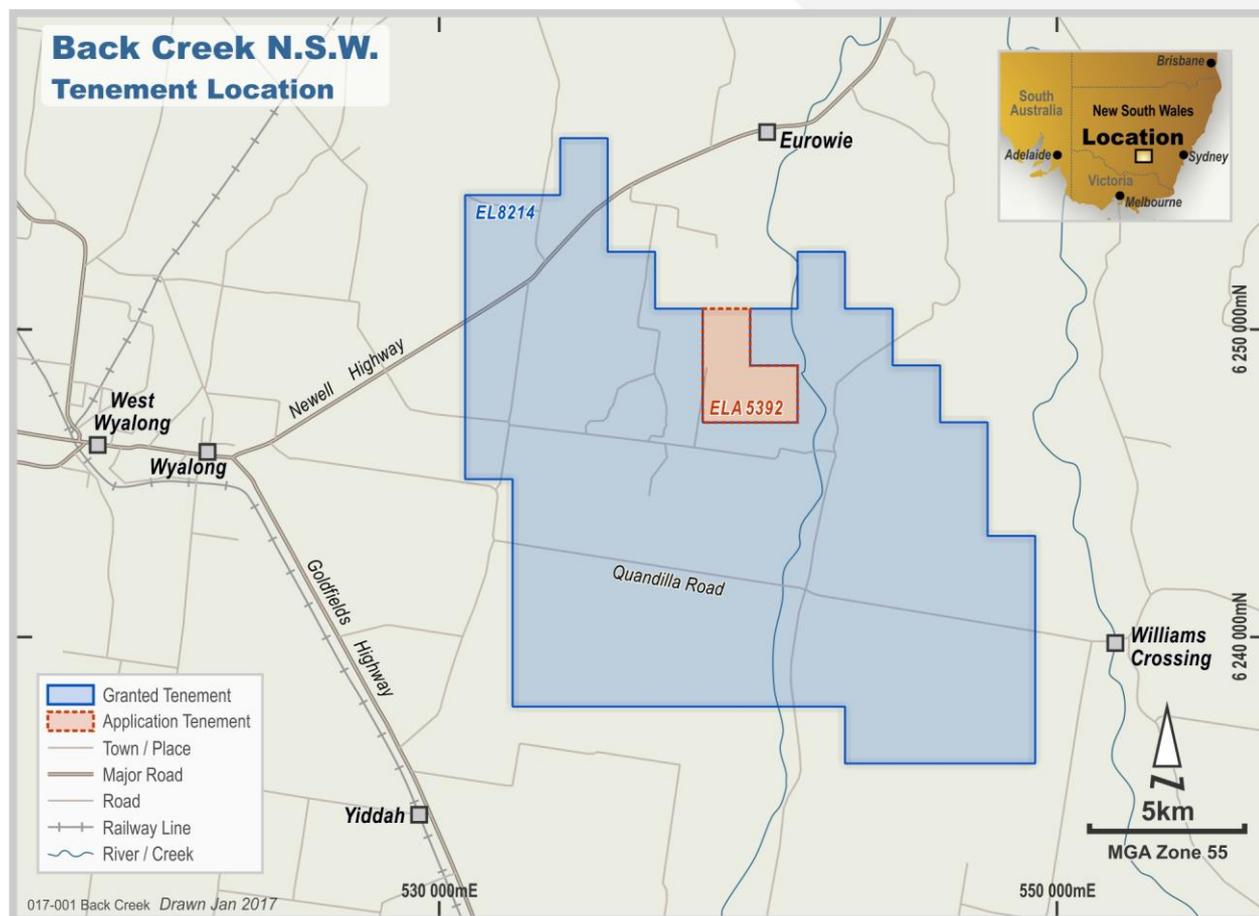


Figure 5.0: Tabar Islands Location Map, Papua New Guinea

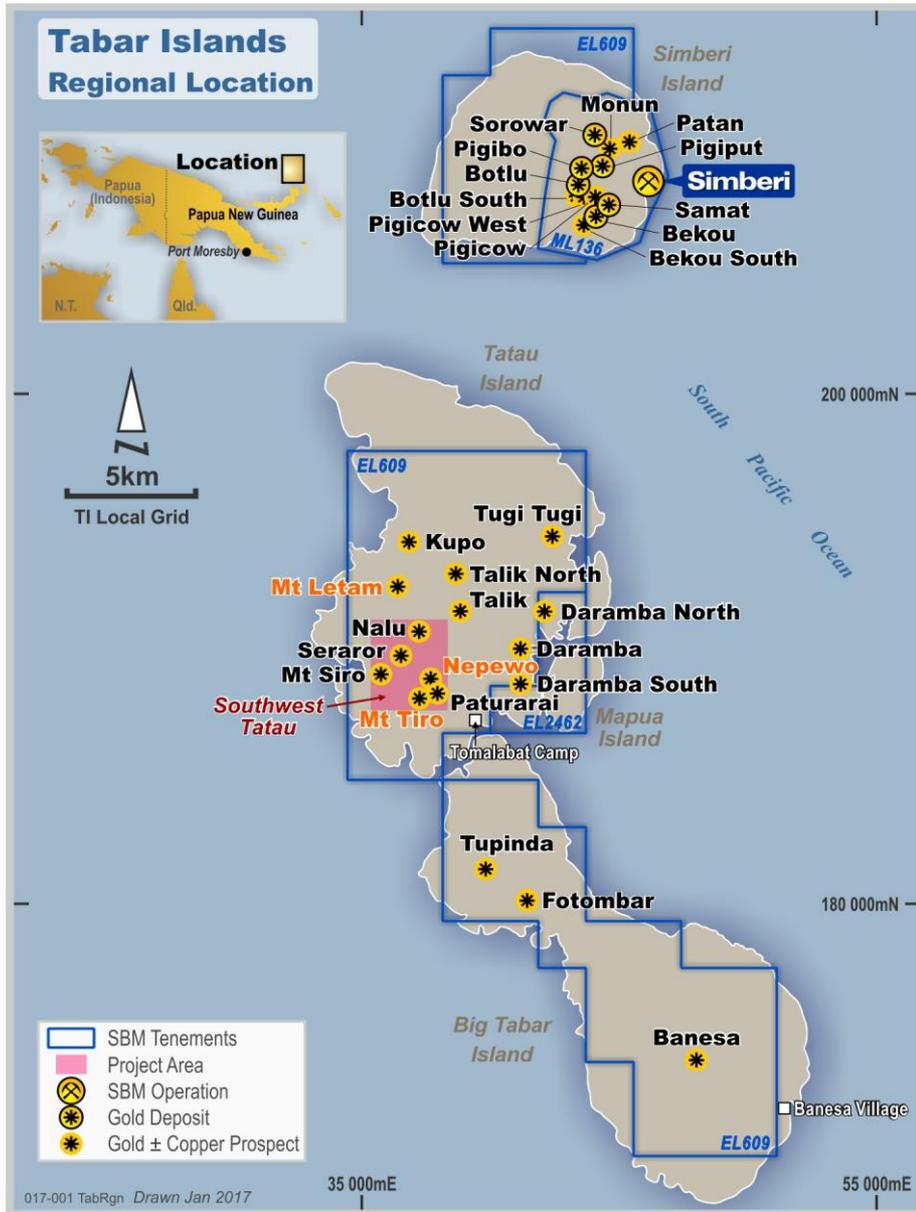


Figure 5.1: Mt Letam Cross Section showing TTD061, Tatau Island, Papua New Guinea

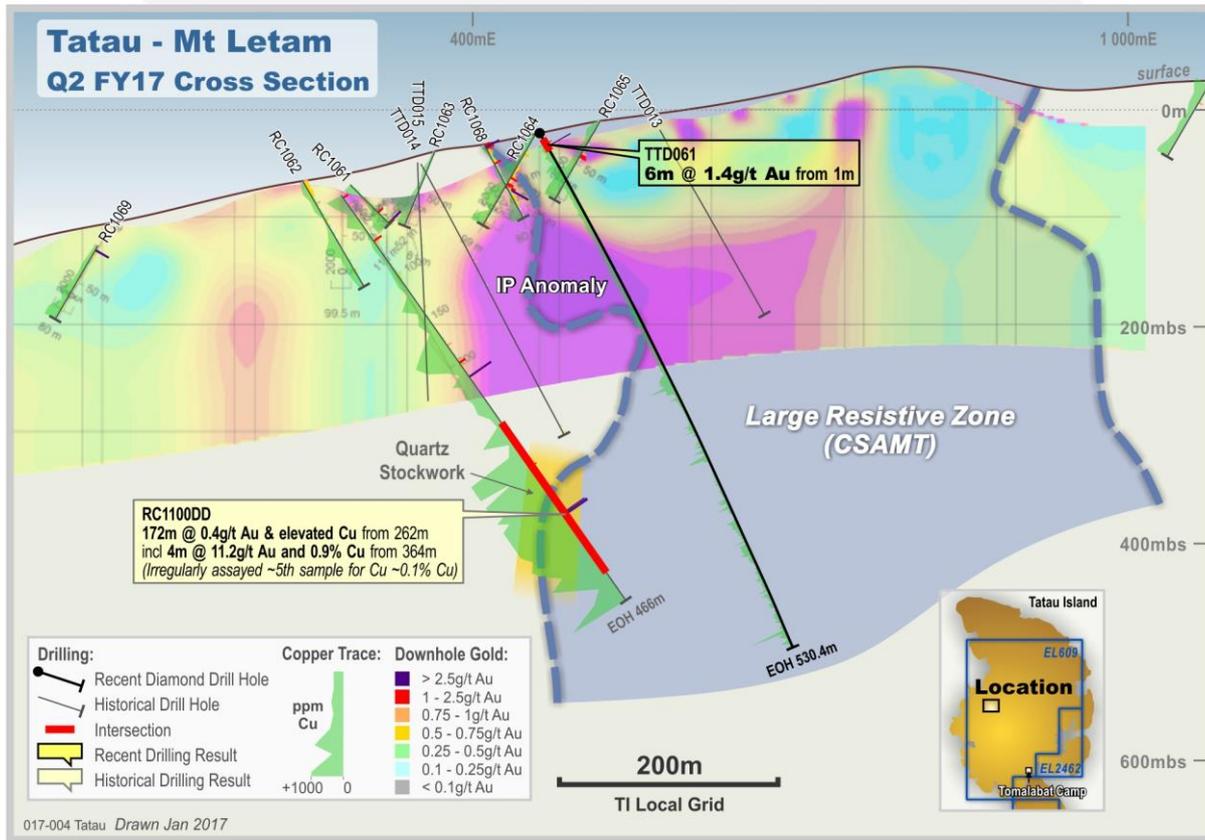
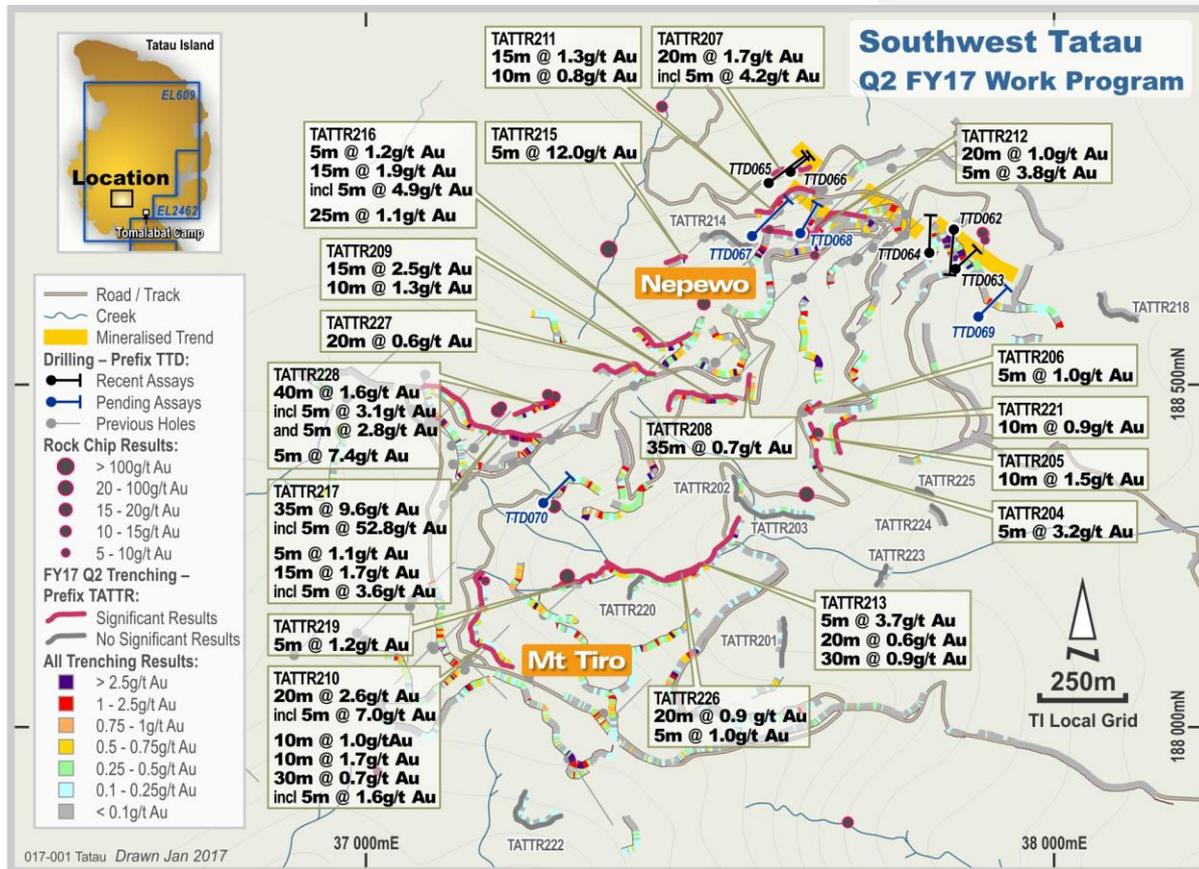


Figure 5.2: Southwest Tatau Trench and Drill Location Map, Tatau Island, Papua New Guinea



**Table 1: Gwalia Deeps Significant Intercepts– Leonora Operations, Gwalia Mine**

Hole Id	Down-hole Mineralised Intersection									
	North m	East m	RL m	Metres Below Surface	Lode	Dip/ Azimuth degrees	From m	To m	Interval m	Gold grade g/t Au
GWDD18B	5354.5	9993.6	3327.5	2052.5	SWB	-39.3/289.4	<b>2262.7</b>	2264.2	<b>1.5</b>	<b>8.2</b>
GWDD18B	5372.1	9942.0	3286.9	2093.1	SGS2	-33.2/287.0	<b>2324.4</b>	2336.0	<b>11.6</b>	<b>8.6</b>
						<i>including</i>	<b>2332.5</b>	2335.4	<b>3.0</b>	<b>23.5</b>
GWDD18C	5252.6	9983.1	3335.6	2044.4	SWB	-47.9/272.0	<b>2248.0</b>	2250.8	<b>2.7</b>	<b>13.9</b>
GWDD18C	5253.4	9956.5	3306.1	2073.9	SGS2	-48.1/271.4	<b>2286.4</b>	2291.3	<b>4.9</b>	<b>8.5</b>
						<i>including</i>	<b>2289.2</b>	2290.3	<b>1.1</b>	<b>31.2</b>

## NOTES:

High grade cuts have not been applied.  
Dip and Azimuth angles estimated at intercept depth.  
Coordinates and Azimuth referenced to Gwalia Local Mine Grid  
Reported intercepts are all down hole lengths.  
Numbers have been rounded to one significant figure.

**Table 2: Northern Extension Significant Intercepts– Leonora Operations, Gwalia Mine**

Hole Id	Down-hole Mineralised Intersection									
	North m	East m	RL m	Metres Below Surface	Lode	Dip/ Azimuth degrees	From m	To m	Interval m	Gold grade g/t Au
GWDD10C	6178.2	9288.1	3854.2	1525.8	MNL	-52.1/217.3	<b>1652.3</b>	1654.3	<b>2.0</b>	<b>1.6</b>
GWDD10C	6167.6	9279.9	3836.8	1543.2	SWB	-52.3/218.2	<b>1674.0</b>	1675.3	<b>1.3</b>	<b>1.6</b>
GWDD10D	6273.8	9266.8	3848.1	1531.9	MNL	-60.1/260.1	<b>1636.2</b>	1639.6	<b>3.5</b>	<b>2.7</b>
GWDD10D	6272.2	9258.0	3832.6	1547.4	SWB	-59.8/260.1	<b>1653.4</b>	1657.3	<b>3.9</b>	<b>1.2</b>
GWDD10E	6308.5	9036.1	4005.1	1374.9	MNL	-26.8/262.6	<b>1631.9</b>	1633.5	<b>1.6</b>	<b>4.4</b>

## NOTES:

High grade cuts have not been applied.  
Dip and Azimuth angles estimated at intercept depth.  
Coordinates and Azimuth referenced to Gwalia Local Mine Grid  
Reported intercepts are estimated true width.  
Numbers have been rounded to one significant figure.

**Table 3: Pinjin Aircore Significant Intercepts – Yilgarn, WA**

Hole Id	North m	East m	RL m	Dip/ Azimuth degrees	Total Depth	Down-hole Mineralised Intersection			
						From m	To m	Interval m	Gold grade Au ppb
PJRC0001	6656501	446059	336	-60/270	150	No Significant Results			
PJRC0002	6656502	446124	343	-60/270	138	81	89	8	673
PJRC0003	6656502	446189	339	-60/270	150	No Significant Results			
PJRC0004	6656502	446254	339	-60/270	156	No Significant Results			
PJRC0005	6655100	451948	335	-60/270	119	47	55	8	606
PJRC0006	6655100	452012	335	-60/270	150	No Significant Results			
PJRC0007	6655100	452080	335	-60/270	156	No Significant Results			
PJRC0008^	6654843	452103	334	-60/270	150	54	58	4	965
PJRC0009	6654840	452164	334	-60/270	150	No Significant Results			
PJRC0010	6654841	452229	335	-60/270	150	No Significant Results			
PJRC0011	6654550	452534	335	-60/270	144	No Significant Results			
PJRC0012	6654556	452600	335	-60/270	150	No Significant Results			
PJRC0013	6654302	452786	334	-60/270	150	No Significant Results			
PJRC0014	6654305	452852	334	-60/270	150	No Significant Results			
PJRC0015	6654300	452918	333	-60/270	150	No Significant Results			
PJRC0016	6654854	453435	336	-60/270	150	100	104	4	541
PJRC0017	6654851	453500	336	-60/270	150	86	90	4	562
PJRC0018	6654550	453798	334	-60/270	150	No Significant Results			
PJRC0019	6654551	453898	334	-60/270	126	No Significant Results			
PJRC0020	6654558	454002	336	-60/270	150	No Significant Results			
PJRC0021	6654549	454199	334	-60/270	150	64	68	4	500
						108	112	4	559
PJRC0022	6654551	454300	335	-60/270	150	No Significant Results			

NOTES:

Coordinates and Azimuth referenced to MGA94 zone 51 Grid.

Reported intercepts are all down hole lengths.

All samples represent preliminary 4 metre composites and will be re-assayed at 1m intervals.

^ - transported, otherwise in-situ.

**Table 4: SW Tatau Significant Intercepts – Tatau Island, Papua New Guinea**

Hole Id	North m	East m	RL m	Dip/ Azimuth degrees	Total Depth	Lode	Down-hole Mineralised Intersection			
							From m	To m	Interval m	Gold grade g/t Au
<b>TTD061 (Mt Letam)</b>	192313	36180	73.0	-60 / 040	530.4	OX,TR	1	7	6	1.4
<b>TTD062 (Nepewo)</b>	188727	37854	107.8	-55 / 180	119.0		No Significant Results			
<b>TTD063 (Nepewo)</b>	188670	37857	114.6	-61 / 046	86.7		No Significant Results			
<b>TTD064 (Nepewo)</b>	188693	37819	121.8	-60 / 359	109.7		No Significant Results			
<b>TTD065 (Nepewo)</b>	188795	37585	122.0	-60 / 051	138.0		No Significant Results			
<b>TTD066 (Nepewo)</b>	188722	37631	159.0	-60 / 030	71.5		No Significant Results			

NOTES:

Coordinates and Azimuth referenced to Tabar Island Grid (TIG).  
Reported intercepts are all down hole lengths.

**Contents**

<b>Drilling:</b>	Section 1 Sampling Techniques and Data
	Section 2 Reporting of Exploration Results
<b>FWS and VSP Sampling:</b>	Section 1 Sampling Techniques and Data
	Section 2 Reporting of Exploration Results

**Drilling - Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	Commentary																								
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Half-core sampling of NQ2 diamond drilling with boundaries defined geologically. Samples are mostly one metre in length unless a significant geological feature warrants a change from this standard unit. The upper or right-hand side of the core is submitted for sample analysis, with each one metre of half core providing between 2.5 – 3 kg of material as an assay sample.</li> </ul>																								
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Diamond drilling using NQ2 (50.6mm) sized core (standard tubes). Holes have been surveyed using a single shot electronic camera. All core is orientated using a Reflex ACT II RD orientation tool.</li> </ul>																								
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Core is metre marked and orientated and checked against drillers blocks to ensure that any core loss is accounted for.</li> <li>Sample recovery is rarely less than 100%. Where minor core loss does occur it is due to drilling conditions and not ground conditions.</li> </ul>																								
<b>Logging</b>	<ul style="list-style-type: none"> <li>All SBM holes are logged primarily for lithology, alteration and vein type/intensity which are key to modelling gold grade distributions. Validation of geological data is controlled via the use of library codes and reliability and consistency of data is monitored through regular peer review.</li> <li>All logging is qualitative.</li> </ul>																								
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>SBM half core is cut using a core saw before being sent to SGS laboratory in Kalgoorlie where the entire sample is crushed to achieve particle size &lt;4mm followed by complete pulverisation (90% passing 75 µm).</li> </ul>																								
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>SBM samples were analysed for gold using fire assay with a 50g charge and analysis by flame Atomic Absorption Spectrometry (AAS). QC includes insertion of 3 commercial standards (1 per 20 samples), barren material used for blank control samples, use of barren flush material between designated high grade samples during the pulverising stage, re-numbered sample pulp residues re-submitted to original laboratory, and sample pulp residues submitted to accredited umpire laboratory, submission of residual (duplicate) half core from ore intervals. The analysis of gold was sound and re-analysis of pulps showed acceptable repeatability with no significant bias.</li> </ul>																								
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>Sampling data is recorded electronically in spread sheets which ensure only valid non-overlapping data can be recorded. Assay and down hole survey data are subsequently merged electronically. All drill data is stored in a SQL database on secure company server.</li> </ul>																								
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Collars for surface holes are recorded by DGPS. Upon completion of underground drill holes an authorised surveyor will pick up the collar by placing a survey rod into the hole to measure azimuth and dip. This process may also occur while the hole is in progress by surveying the drill rods in the hole.</li> <li>All coordinates and Azimuth are specified in using the Gwalia Local Mine Grid (LE_SGMG). The two-point transformation of MGA_51 to LE_SGMG is detailed below:</li> </ul> <table border="1"> <thead> <tr> <th>Grid</th> <th>Azimuth</th> <th>MGAE 1</th> <th>MGAN 1</th> <th>MGAE 2</th> <th>MGAN 2</th> <th>GridE 1</th> <th>GridN 1</th> <th>GridE 2</th> <th>GridN 2</th> <th>Rotation</th> <th>Scale</th> </tr> </thead> <tbody> <tr> <td>LE_SGMG Sons of Gwalia Mine Grid</td> <td>15.13</td> <td>337371.157</td> <td>6800342.586</td> <td>340246.451</td> <td>6799408.751</td> <td>7200.281</td> <td>6987.844</td> <td>10219.711</td> <td>6836.814</td> <td>344.522</td> <td>1</td> </tr> </tbody> </table>	Grid	Azimuth	MGAE 1	MGAN 1	MGAE 2	MGAN 2	GridE 1	GridN 1	GridE 2	GridN 2	Rotation	Scale	LE_SGMG Sons of Gwalia Mine Grid	15.13	337371.157	6800342.586	340246.451	6799408.751	7200.281	6987.844	10219.711	6836.814	344.522	1
Grid	Azimuth	MGAE 1	MGAN 1	MGAE 2	MGAN 2	GridE 1	GridN 1	GridE 2	GridN 2	Rotation	Scale														
LE_SGMG Sons of Gwalia Mine Grid	15.13	337371.157	6800342.586	340246.451	6799408.751	7200.281	6987.844	10219.711	6836.814	344.522	1														
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Surface drilling is spaced on an approximate 60m x 80m below 1620 metres below surface Drilling data is sufficient to establish down plunge continuity for all lodes.</li> </ul>																								
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Sampling is perpendicular to lode orientations and is sound based on past production and underground mapping.</li> </ul>																								
<b>Sample security</b>	<ul style="list-style-type: none"> <li>Company personnel or approved contractors only allowed on drill sites; drill samples are only removed from drill site by approved contractors to the company's secure core logging/processing facility; cut core is consigned to accredited laboratories for sample preparation and analysis.</li> </ul>																								
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>Regular reviews of core logging and sampling are completed through SBM mentoring and auditing. Additionally, regular laboratory inspections are conducted by SBM personnel. Inspections are documented electronically and stored on secure company server. No significant issues were identified.</li> </ul>																								

## Drilling - Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"><li>• SBM has 100% ownership of the two tenements M37/25 and M37/333 over the Gwalia deposit.</li></ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"><li>• Western Mining Corporation (WMC) and Sons of Gwalia (SGW), have previously completed deep diamond drilling below 1,100 metres below surface</li></ul>
<b>Geology</b>	<ul style="list-style-type: none"><li>• Gold mineralisation occurs as a number of stepped, moderately east dipping, foliation parallel lodes within strongly potassic altered mafic rocks which extend over a strike length of approximately 500 metres and to a vertical depth of at least 2,200 metres below surface. The deposit exhibits significant down-plunge continuity but is interrupted at approximately 1,200 metres below surface (mbs) by a cross cutting post-mineralisation doleritic dyke, with a horizontal width of approximately 30 metres.</li></ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"><li>• Drill hole information is included in intercept table outlining mid-point co-ordinates including vertical hole depth and composited mineralized intercepts lengths and depth.</li></ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"><li>• Down hole intercepts are reported as length weighted averages. No high grade cut is applied.</li></ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"><li>• Down hole length is reported for all holes; true width is not immediately known until further drilling is completed and the orebody modelled.</li></ul>
<b>Diagrams</b>	<ul style="list-style-type: none"><li>• Appropriate diagrams are included within the body of the report</li></ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"><li>• Details of all holes material to Exploration Results have been reported in the intercept table.</li></ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"><li>• These holes test the deepest limits of mineralisation and no other data is available</li></ul>
<b>Further Work</b>	<ul style="list-style-type: none"><li>• Further exploration drill holes are planned</li></ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"><li>• Details of all holes material to Exploration Results have been reported in the intercept table.</li></ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"><li>• Data is included in the body of the report</li></ul>
<b>Further Work</b>	<ul style="list-style-type: none"><li>• Follow-up drilling is planned and is discussed in the body of the report</li></ul>

## **FWS and VSP Sampling: Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

<b>Criteria</b>	<b>Commentary</b>
<b><i>Sampling techniques</i></b>	<ul style="list-style-type: none"> <li>• FWS The full waveform sonic data was acquired using an ALT Logger rack with a DEEP telemetry board and the ALT QL40FWS tool. This probe has a transducer with a frequency range of 5 – 35 kHz and four receivers, which are mounted 60, 80, 100 and 120 cm from the transducer. Readings were taken every 0.1 m in open parts of a drillhole, using a sample rate of 4 μs for a total sample length of 2 ms.</li> <li>• VSP VSP operations utilised a high-sensitivity, three-component, omnidirectional probe to record the seismic response from a 60,000 lb Inova AHV IV seismic vibrator. The geophone probe is a Sercel SlimWave unit operated with an electronically driven clamping arm to ensure adequate coupling to the formation wall and to maximise the quality of the signal being recorded. Data was collected using a 12-second linear sweep ranging from 8-120 Hz with a 2 second listening time. Field correlation was applied through Pelton Source Controllers and the internal operations of the Wave Control software.</li> </ul>
<b><i>Drilling techniques</i></b>	<ul style="list-style-type: none"> <li>• No drilling completed</li> </ul>
<b><i>Drill sample recovery</i></b>	<ul style="list-style-type: none"> <li>• No drilling completed</li> </ul>
<b><i>Logging</i></b>	<ul style="list-style-type: none"> <li>• No drilling completed</li> </ul>
<b><i>Sub-sampling techniques and sample preparation</i></b>	<ul style="list-style-type: none"> <li>• No drilling completed</li> </ul>
<b><i>Quality of assay data and laboratory tests</i></b>	<ul style="list-style-type: none"> <li>• No drilling or sample analysis completed</li> </ul>
<b><i>Verification of sampling and assaying</i></b>	<ul style="list-style-type: none"> <li>• No drilling or sample analysis completed</li> </ul>
<b><i>Location of data points</i></b>	<ul style="list-style-type: none"> <li>• Collar points located with a handheld GPS</li> <li>• Co-ordinates are recorded in GDA94 Zone 51</li> </ul>
<b><i>Data spacing and distribution</i></b>	<ul style="list-style-type: none"> <li>• The current spacing of survey stations and lines is deemed appropriate for this phase of exploration</li> </ul>
<b><i>Orientation of data in relation to geological structure</i></b>	<ul style="list-style-type: none"> <li>• Survey lines were designed to be approximately perpendicular to the interpreted strike of stratigraphy - as deemed appropriate.</li> </ul>
<b><i>Sample security</i></b>	<ul style="list-style-type: none"> <li>• No sampling or assaying completed</li> </ul>
<b><i>Audits or reviews</i></b>	<ul style="list-style-type: none"> <li>• No audits or reviews completed</li> </ul>

## **FWS and VSP Sampling: Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

<b>Criteria</b>	<b>Commentary</b>
<b><i>Mineral tenement and land tenure status</i></b>	<ul style="list-style-type: none"><li>• SBM has 100% ownership of the two tenements M37/25 and M37/333 over the Gwalia deposit.</li></ul>
<b><i>Exploration done by other parties</i></b>	<ul style="list-style-type: none"><li>• Western Mining Corporation (WMC) and Sons of Gwalia (SGW), have previously completed deep diamond drilling below 1,100 metres below surface</li></ul>
<b><i>Geology</i></b>	<ul style="list-style-type: none"><li>• Gold mineralisation occurs as a number of stepped, moderately east dipping, foliation parallel lodes within strongly potassic altered mafic rocks which extend over a strike length of approximately 500 metres and to a vertical depth of at least 2,200 metres below surface. The deposit exhibits significant down-plunge continuity but is interrupted at approximately 1,200 metres below surface (mbs) by a cross cutting post-mineralisation doleritic dyke, with a horizontal width of approximately 30 metres.</li></ul>
<b><i>Drill hole Information</i></b>	<ul style="list-style-type: none"><li>• No drilling completed</li></ul>
<b><i>Data aggregation methods</i></b>	<ul style="list-style-type: none"><li>• Not applicable for this data</li></ul>
<b><i>Relationship between mineralisation widths and intercept lengths</i></b>	<ul style="list-style-type: none"><li>• No drilling completed</li></ul>
<b><i>Diagrams</i></b>	<ul style="list-style-type: none"><li>• Appropriate diagrams are included within the body of the report</li></ul>
<b><i>Balanced reporting</i></b>	<ul style="list-style-type: none"><li>• This program represents a second phase of de-risking of application of seismic methods in the greater Gwalia region. As such, its results only suggest that the seismic response of the geology is appropriate for the application of seismic methods.</li></ul>
<b><i>Other substantive exploration data</i></b>	<ul style="list-style-type: none"><li>• Not applicable for this data</li></ul>
<b><i>Further Work</i></b>	<ul style="list-style-type: none"><li>• Follow-up 3D seismic survey is planned and is discussed in the body of the report</li></ul>

**Contents**

Drilling: Section 1 Sampling Techniques and Data  
Section 2 Reporting of Exploration Results

**Drilling - Section 1 Sampling Techniques and Data**

(Criteria in this section apply to the succeeding section.)

Criteria	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>Sampling was conducted via RC drilling on 60m spacing with line spacing's of 250m, 300m or as individual lines. Where possible all holes were drilled to blade refusal.</li> <li>RC samples were collected from a rig mounted cyclone by bucket and were then placed directly on the ground in rows of twenty.</li> <li>Drill spoil was sampled with a scoop to generate 4m composite samples of approximately 3kg.</li> <li>One meter samples were also generated by the rigs cone splitter system and collected in calico bags, these were left on the ground on top of the corresponding meter of drill spoil. The one meter samples will be submitted to the laboratory if the 4m composite samples return encouraging assay results.</li> <li>Representative specimens of every meter were stored in plastic chip trays for future reference – transported cover was composited.</li> <li>Composite samples were submitted to Bureau Veritas Minerals Pty Ltd, Perth where they were sorted and dried, crushed to 10mm and pulverized to -75µm. A 40g charge of pulverized sample was then analyzed for Au by Fire Assay with an ICP finish to a detection limit of 1ppb. The same pulp was also tested for arsenic by ICP-AES to 1ppm detection limit.</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>RC drilling was carried out using a four and a half inch hammer bit. Drilling was carried out by Raglan Drilling who utilised a truck mounted SCHRAMM T685W rig with Sullair 1150/350 on board air.</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>Sample recoveries and condition (wet/dry) were quantitatively recorded.</li> <li>The drill cyclone and sample buckets were cleaned regularly, in particular after wet ground was encountered. The cyclone was also cleaned several times during the course of each hole and after the completion of each hole</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>All drill holes were logged in full for lithology, alteration, weathering/regolith and colour.</li> <li>Aircore logging is both qualitative and quantitative</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>RC samples were collected as both dry and wet samples using a sample scoop.</li> <li>All RC composite samples were sorted, dried, crushed and pulverized to produce a 40g charge prior to fire assay.</li> <li>RC samples were collected at 1m intervals and composited in 4m samples using a scoop to sample individual metre samples.</li> <li>QC procedures for 4m composite sampling involved the insertion of certified reference material , field duplicates and blanks at a ratio of 1:50.</li> <li>Bureau Veritas inserted certified standards and replicates and lab repeats.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>The composite samples used a 40g charge for fire assay which is considered appropriate for gold mineralisation in fresh rock material.</li> <li>Certified reference material was inserted into the sample stream at a ratio of 1:50.</li> <li>Field duplicates and no blanks were inserted at a ratio of 1:50. Blanks were also inserted between holes.</li> <li>Bureau Veritas inserted certified standards and replicates and lab repeats.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>Primary geological and sampling data were recorded into made for purposed excel spreadsheets. Data was then transferred into the St Barbara corporate DataShed database where it was validated by an experienced database geologist.</li> <li>No adjustments to assay data were made.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>Prior to drilling, all holes were marked out using a dGPS with decimetre accuracy for easting, northings and elevation. Upon completion of the program all holes were resurveyed using a dGPS to determine the final collar positions.</li> <li>All holes were surveyed down hole by Raglan drilling using a Reflex multishot camera tool. Surveys were generally conducted at 30m, 90m and 150m or EOH.</li> <li>All locations were captured in MGA94 zone 51 grid.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>RC drilling was conducted on 60m drill spacing's and a line spacing of 250m, 300m or as individual lines.</li> <li>RC results reported are based on the original 4m composites. The results for the 1m samples have yet to be returned.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>All drill holes had a dip and azimuth of -60/270. Due to the early stage of the project there is not yet an exact understanding of the primary orientation of mineralisation.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>Only trained and experienced contractors and company personnel were allowed to collect the samples; all samples were held within a secure company location before dispatch to Bureau Veritas in Perth for Au analysis.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>No audits or reviews of sampling protocols have been completed.</li> </ul>

## Drilling - Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>SBM has 100% ownership of the 20 tenements comprising the Pinjin Project. These include: E28/2234, E28/2283, E28/2284, E31/0999, E31/1000, E31/1005, E31/1007, E39/1718, E28/2218, E28/2245, E28/2250, E28/2264, E28/2357, E28/2375, E28/2445, E31/1056, E31/1082, E28/2246, E28/2247 and E28/2494.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>There has been numerous historical holders of the project area which covers over ~1,358 square kilometres.</li> <li>Exploration has been conducted by numerous companies including but not limited to Newmont Pty Ltd, Endeavour Minerals, WMC, Goldfields Exploration Pty Ltd, Anglo American, Gutnick Resources, Carpentaria Exploration Company, BHP, Uranex, Placer Exploration Ltd, Jacksons Minerals Limited, Anglo Australian Resources, Troy Resources NL, Saracen, Hawthorn Resources and Renaissance Minerals Limited.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>SBM is targeting Archean orogenic gold mineralisation near major regional faults.</li> <li>The tenement package covers Archaean greenstones within the highly prospective Eastern Goldfields Province of the Yilgarn Craton. The Pinjin project covers portions of the prospective Laverton and Keith-Kilkenny Tectonic Zones which pass through the eastern and western portions respectively.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>Drill hole information for holes returning significant results have been reported in the intercept table. Included in the intercept table are collar position obtained by dGPS pickup, hole dip and azimuth acquired from hand held compass and clinometer, composited mineralised intercepts lengths and depth as well as hole depth. Metres below surface (mbs) for intercepts were calculated for the start of the intercept.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>Broad down hole intercepts are reported as length weighted averages using a cut-off of 500ppb Au. Such intercepts may include material below cut-off but no more than 5 sequential meters of such material and except where the average drops below the cut-off. Selvage is only included where its average grade exceeds 500 ppb Au.</li> <li>No high grade cut is applied.</li> <li>No metal equivalent values are used for reporting exploration results.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>Down hole length is reported for all holes; true width is not known as the orientation of mineralisation is not fully understood.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>Included in the body of the report.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>Diagrams show all drill holes material and immaterial to Exploration Results.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>Details of all holes material to Exploration Results have been reported in the intercept table, and all other drill holes drilled during the reporting period are highlighted on diagrams included in the report.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>Data is included in the body of the report.</li> </ul>
<i>Further Work</i>	<ul style="list-style-type: none"> <li>Further exploration aircore drill holes are planned and is discussed in the body of the report.</li> </ul>

**Contents**

Drilling:	Section 1 Sampling Techniques and Data Section 2 Reporting of Exploration Results
Trenching:	Section 1 Sampling Techniques and Data Section 2 Reporting of Exploration Results
Surface Sampling:	Section 1 Sampling Techniques and Data Section 2 Reporting of Exploration Results

**Drilling - Section 1 Sampling Techniques and Data**

(Criteria in this section apply to the succeeding section.)

Criteria	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>Diamond Drilling - Sampled using PQ (85mm), HQ (63.5mm) or HQ3 (61.1mm) and on occasion NQ2 (50.5mm) or NQ3 (45mm) sized core using standard triple tubes. Half core was sampled on nominal 1-metre intervals with the upper or left - hand side of the core prepped on-site to produce a 200gm pulp sample. A 50gm charge was then extracted from the 200gm pulp for Au fire assay and ICP - AES base metal analysis.</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>Diamond Drilling comprised PQ (85mm), HQ (63.5mm) or HQ3 (61.1mm) and on occasion NQ2 (50.5mm) or NQ3 (45mm) core recovered using 1.5m to 3m barrels. When ground conditions permit, an ACT Digital Core Orientation Instrument was used by the contractor to orientate the core.</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>Diamond drilling recovery percentages were measured by comparing actual meters recovered per drill run versus meters measured on the core blocks. Recoveries averaged over &gt;90% with increased core loss present in fault zones and zones of strong alteration. No relationship exists between sample recovery and grade.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>Diamond holes are qualitatively geologically logged for lithology, structure and alteration and qualitatively and quantitatively logged for veining and sulphides. Diamond holes are geotechnically logged with the following attributes qualitatively recorded - strength, infill material, weathering and shape. Whole core together with half core, were photographed when wet.</li> <li>All holes are fully logged.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>Diamond core was sampled largely on 1 metre intervals. Core was cut with the upper or left-hand side of the core routinely submitted for total pulverisation (85% passing 75 µm). Quality control of sub-sampling consisted of insertion of blank control samples and coarse reject duplicates, both at a ratio of 1:20 samples. The samples were fully prepared at the company's on-site sample preparation facility on Simberi Island with 200g pulps sent to ALS Laboratory in Townsville.</li> <li>Pulp residues are stored in Townsville for future re-assay if required.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>Half Core samples were analysed for gold using fire assay with a 50g charge and analysis by flame atomic absorption spectrometry. Base metals were analysed by Aqua Regia digestion using Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES). QC included insertion of certified reference material (1 in 20); insertion of in-house blank control material (1 in 20); and the insertion of reject residues (1 in 20). QAQC results were assessed as each laboratory batch was received and again on a quarterly basis. Results indicate that pulveriser bowls were adequately cleaned between samples. Overall, the analysis of gold was sound.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>Sampling data is recorded electronically which ensures only valid non-overlapping data can be recorded. Assay and downhole survey data are subsequently merged electronically. All drill data is stored in a SQL database on secure company server. No twin holes have been completed.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>All Simberi Island collars were surveyed by in-house surveyors using DGPS using Tabar Island Grid (TIG) which is based on WGS84 ellipsoid and is GPS compatible (RC holes reported in this period are still pending pickup by dGPS). Tatau and Tabar Island collars were surveyed by hand held GPS. All holes were downhole surveyed using either a Reflex or Ranger single shot camera with the first reading at about 15m and then approximately every 30m increments to the bottom-of-the hole.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>Drilling data is not yet sufficient to establish continuity of the lodes and therefore the drill spacing is irregular and broad spaced.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>Where surface mapping and sampling has contributed to understanding of outcropping geological structures, drilling and sampling has been undertaken orthogonal to the mapped structure.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>Only company personnel or approved contractors are allowed on drill sites; drill core is only removed from drill site to secure core logging/processing facility within the gated exploration core yard; core is promptly logged, cut and prepped on site. The 200gm pulps are then consigned to ALS in Townsville for Au-base metal analysis.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>No audits or reviews of sampling protocols have been completed.</li> </ul>

## Drilling - Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>SBM has 100% ownership of the two tenements over the Simberi Islands; ML136 on Simberi Island, and EL609 which covers the remaining area of Simberi Island, as well as Tatau Island and Big Tabar Island. A 4 sub-block ELA2462 was granted 15 November 2016.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>CRA, BHP, Tabar JV (Kennecott, Nord Australalex and Niugini Mining), Nord Pacific, Barrick and Allied Gold have all previously worked in this area. Nord Pacific followed by Allied Gold were instrumental in the discovery and delineation of the 5 main oxide and sulphide deposits at Simberi.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>The Simberi gold deposits are low sulphidation, intrusion related adularia-sericite epithermal gold deposits. The dominant host rocks for mineralisation are andesites, volcanoclastics and lesser porphyries. Gold mineralisation is generally associated with sulphides or iron oxides occurring within a variety of fractures, such as simple fracture in-fills, single vein coatings and crackle brecciation in the more competent andesite units, along andesite/polymict breccia contact margins as well as sulphide disseminations. On Tatau and Big Tabar Islands, located immediately south of Simberi, potential also exists for porphyry Cu-Au, epithermal quartz Au-Ag and carbonate-base metal Au mineralisation.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>Drill hole information is included in intercept table outlining collar position obtained by DGPS pickup, hole dip and azimuth acquired from a downhole surveying camera as discussed in section 1, composited mineralized intercepts lengths and depth as well as hole depth. Metres below surface (Mbs) for intercepts were calculated by measuring the distance between the midpoint of the intercept and a Lidar survey based topographic surface.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>Broad down hole intercepts are reported as length weighted averages using a cut-off of 0.5 g/t Au and a minimum grade*length of 5gmpt. Such intercepts may include material below cut-off but no more than 5 sequential meters of such material and except where the average drops below the cut-off. Salvage is only included where its average grade exceeds 0.5 g/t Au.</li> <li>Using the same criteria for included sub-grade, supplementary cut-offs, of 2.5g/t Au, 5.0g/t Au and 10g/t Au, may be used to highlight higher grade zones and spikes within the broader aggregated interval. Single assays intervals are reported only where <math>\geq 5.0\text{g/t Au}</math> and <math>\geq 1\text{m}</math> down hole. In core holes, core loss is assigned zero grade. No high grade cut is applied.</li> <li>No metal equivalent values are used for reporting exploration results.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>Down hole length is reported for all holes; true width is not known as the orientation of the orebody is not fully understood.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>Diagrams show all drill holes material and immaterial to Exploration Results.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>Details of all holes material to Exploration Results have been reported in the intercept table, and all other drill holes drilled during the reporting period are highlighted on diagrams included in the report.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>Included in the body of the report. Core holes are routinely measured for bulk density determinations to be used for future resource modelling.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>Included in the body of the report.</li> </ul>

## Trenching - Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>Sampling of trenches was done over measured intervals of between 1 and 5 meters dependent on geology. A geo-pick was used to collect a continuous channel sample from the trench faces across the designated interval with the samples collected in calico bags. Samples (3 to 5kg) were prepped on-site (jaw crushed, disk mill pulverised and then split) to produce a 200g pulp sample. A 25g charge was then extracted from the pulp for Au analyses by Aqua Regia digestion followed by an Atomic Absorption Spectroscopy (AAS) instrument finish.</li> </ul>
<i>Trenching/Benching techniques</i>	<ul style="list-style-type: none"> <li>Trenches were created by both hand and mechanical techniques. Hand trenches were dug using spades, crowbars and shovels to depths of between 1 and 2 meters. Creek channel sampling is conducted in the same manner as trenches, where continuous exposure of bedrock is made by hand clearing of vegetation and cover. Mechanised trenches were dug by an excavator or dozer exposing up to 5 meters of trench wall.</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
<i>Logging / Mapping</i>	<ul style="list-style-type: none"> <li>All trenches were qualitatively geologically mapped for lithology, structure and alteration.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>Samples are routinely submitted for total pulverisation (85% passing &lt;75 µm) at the company onsite sample preparation facility on Simberi Island.</li> <li>200g pulps are sent to St Barbara's Simberi Laboratory where a 25g sub-sample is taken.</li> <li>For Banesa trench samples, the 200g pulps were sent to ALS, Townsville for analysis.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>The Mine Lease samples were analysed for gold at the Simberi Lab using Aqua Regia digestion with a 25g charge and analysis by Atomic Absorption Spectrometry.</li> <li>The West Simberi and Banesa samples were analysed for gold at ALS (Townsville) via 50g fire assay and AAS finish (Method Au26). At Banesa, Cu, Ag, As, Fe, Mo, Pb, S, Sb and Zn were analysed via Nitric Aqua Regia Digestion and ICP-AES Finish (Method ME-ICP41).</li> <li>QC included the insertion of two in house blanks at the start of each batch of trench samples, the insertion of certified copper-gold standards (1:100) as well as the collection of field duplicates (1:100).</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>Sampling data is recorded electronically which ensures only valid non-overlapping data can be recorded. Assay and trench survey data are subsequently merged electronically. All data is stored in a SQL database on secure company server.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>All trenches were initially surveyed by a handheld GPS to capture the trench start point. The GPS used the Tabar Island Grid (TIG) which is based on WGS84 ellipsoid. The path of the trench from the initial start point to the end was surveyed by Tape &amp; Compass method. Trench interval coordinates were then generated using basic trigonometry.</li> <li>Selected recent trenches have been picked up using dGPS.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>Trench data spacing is irregular and broad spaced.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>Where preceding surface mapping and sampling of trenches has contributed to understanding of outcropping geological structures, trenching and sampling has been undertaken to extend the strike length of the mapped structure. However, in many of the areas the lode orientation is poorly understood.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>Only company personnel or approved contractors are allowed on drill sites; drill core is only removed from drill site to secure core logging/processing facility within the gated exploration core yard; core is promptly logged, cut and prepped on site. The 200gm pulps are then consigned to ALS in Townsville for Au-base metal analysis.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>No audits or reviews of sampling protocols have been completed.</li> </ul>

## Trenching - Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>SBM has 100% ownership of the two tenements over the Simberi Islands; ML136 on Simberi Island, and EL609 which covers the remaining area of Simberi Island, as well as Tatau Island and Big Tabar Island. A 4 sub-block ELA2462 was granted 15 November 2016.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>CRA, BHP, Tabar JV (Kennecott, Nord Australex and Niugini Mining), Nord Pacific, Barrick and Allied Gold have all previously worked in this area. Nord Pacific followed by Allied Gold was instrumental in the discovery and delineation of the 5 main oxide and sulphide deposits at Simberi.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>The Simberi gold deposits are low sulphidation, intrusion related adularia-sericite epithermal gold deposits. The dominant host rocks for mineralisation are andesites, volcanoclastics and lesser porphyries. Gold mineralisation is generally associated with sulphides or iron oxides occurring within a variety of fractures, such as simple fracture in-fills, single vein coatings and crackle brecciation in the more competent andesite units, along andesite/polymict breccia contact margins as well as sulphide disseminations. On Tatau and Big Tabar Islands, located immediately south of Simberi, potential also exists for porphyry Cu-Au, epithermal quartz Au-Ag and carbonate-base metal Au mineralisation.</li> </ul>
<i>Trench/Bench Information</i>	<ul style="list-style-type: none"> <li>Included in the report text and annotated on diagrams.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>Broad trench intercepts are spikes within the broader aggregated interval using a cut-off of 0.5 g/t Au and a minimum grade*length of 5gmpt. Such intercepts may include material below cut-off but no more than 5 sequential meters of such material and except where the average drops below the cut-off. Selvage is only included where its average grade exceeds 0.5 g/t Au.</li> <li>Using the same criteria for included sub-grade, supplementary cut-offs, of 2.5g/t Au, 5.0g/t Au and 10g/t Au, may be used to highlight higher grade zones and spikes within the broader aggregated interval. Single assays intervals are reported only where <math>\geq 1.0\text{g/t}</math> and <math>\geq 5\text{m}</math> trench length is intercepted. No high grade cut is applied.</li> <li>At Banesa, the same method is applied to aggregate gold grades using a 0.5 g/t cut-off grade and minimum grade*length of 5gmpt with no more than 5m of internal dilution and similar selvage restrictions. Within the corresponding Au intercept, Cu grades are reported if above 0.1% Cu. For defining copper intercepts a minimum of 0.1% Cu cut-off grade over 5m is used to define copper aggregated intervals with the corresponding gold grade reported where it is above 0.1g/t Au. Gold grades below this are not reported. Such intercepts may include material below cut-off but no more than 10 sequential meters of such material and except where the average drops below the cut-off. Selvage is only included where its average grade exceeds 0.1 %Cu. Supplementary copper grades above 0.2% Cu and/or 0.5 g/t Au are used to highlight higher gold or copper grade zones within the broad zone. No high grade cut is applied.</li> <li>No metal equivalent values are used for reporting exploration results.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>Trench intercepts are sampled along the length of the trench and are reported for all trenches; true width is not reported.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>Diagrams show all trenches material and immaterial to Exploration Results.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>Details of all trenches material to Exploration Results have been reported in the text, and all other trenches dug during the reporting period are highlighted on diagrams included in the report.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>Included in the body of the report.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>Included in the body of the report.</li> </ul>

### Surface Sampling - Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>Soil samples were collected by first digging through the organic A horizon until the B horizon was reached (Approximately 40cm depth). A bulk sample of approximately 3kg was then collected in a calico bag.</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>All rock chip, float and soil samples were qualitatively logged for lithology, alteration, weathering and colour.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>Rock chip, float and soil samples were fully prepared at the company's on-site sample preparation facility on Simberi Island with 200g pulps sent to ALS Laboratory in Townsville for analysis.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>Rock chip, float and soil samples were analysed for gold by ALS Townsville using Aqua Regia digestion with a 50g charge and analysis by Inductively Coupled Plasma Mass Spectroscopy. Base metals were analysed using Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES). QC included insertion of field duplicates (1:100) and low level gold standards (1:100).</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>All sampling sites were surveyed by a hand held GPS using Tabar Island Grid (TIG) which is based on WGS84 ellipsoid and is GPS compatible.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>The sampling programs were designed to test the West Simberi catchment areas such that further stages of exploration could be planned.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>Only trained company personnel were allowed to collect the samples; All samples were held within a secure company building before dispatch to ALS in Townsville for Au-base metal analysis.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>No audits or reviews of sampling protocols have been completed.</li> </ul>

### Surface Sampling - Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>SBM has 100% ownership of the two tenements over the Simberi Islands; ML136 on Simberi Island, and EL609 which covers the remaining area of Simberi Island, as well as Tatau Island and Big Tabar Island. A 4 sub-block ELA2462 was granted 15 November 2016.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>CRA, BHP, Tabar JV (Kennecott, Nord Australex and Niugini Mining), Nord Pacific, Barrick and Allied Gold have all previously worked in this area. Nord Pacific followed by Allied Gold was instrumental in the discovery and delineation of the 5 main oxide and sulphide deposits at Simberi.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>The Simberi gold deposits are low sulphidation, intrusion related adularia-sericite epithermal gold deposits. The dominant host rocks for mineralisation are andesites, volcanoclastics and lesser porphyries. Gold mineralisation is generally associated with sulphides or iron oxides occurring within a variety of fractures, such as simple fracture in-fills, single vein coatings and crackle brecciation in the more competent andesite units, along andesite/polymict breccia contact margins as well as sulphide disseminations. On Tatau and Big Tabar Islands, located immediately south of Simberi, potential also exists for porphyry Cu-Au, epithermal quartz Au-Ag and carbonate-base metal Au mineralisation.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>Figures show all sample sites material and immaterial to Exploration Results.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>All trench and soils sample locations with any significant results are shown in Figures.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>Included in the body of the report.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>Included in the body of the report.</li> </ul>

End of report