# **Quarterly Report** Q2 December FY22



3 months to 31 December 2021

# Highlights Q2 December FY22<sup>1</sup>

- Group gold production steady at 65,523 ounces with All-In Sustaining Cost (AISC) of A\$1,587 per ounce
- Realised gold price A\$2,423 achieving margin of A\$836 per ounce
- Planned acquisition of Bardoc Gold enables the acceleration of the Leonora Province Plan<sup>2</sup>
- Leonora Province Plan advances with 600koz increase to Tower Hill Mineral Resources
- High grade intercepts in Old South Gwalia
  - Potential new mining front at shallower depths
  - Updated Mineral Resource targeted for Q4 June FY22
    - UGD2835: 10.4m @ 19.9g/t Au at 751 metres below surface (mbs),
    - UGD2832: 37.4m @ 3.3g//t Au at 756mbs, and
    - UGD2842: 10.2m @ 9.2g/t Au at 825mbs
- Deep sea tailings placement (DSTP) pipeline commissioning completed at Simberi
- Group AISC cost guidance adjusted on back of lowered per ounce costs at Simberi
- Delays in waste rock permitting at Atlantic defers some production to FY23, with Atlantic's FY22 guidance lowered

# **Production summary**

		Q2 Dec FY21	Q3 Mar FY21	Q4 Jun FY21	Q1 Sep FY22	Q2 Dec FY22	Half Year FY22
Group TRIFR <sup>3</sup>	mhrs	3.3	3.7	3.9	3.6	2.7	2.7
Gold Production	koz	90	82	83	67	66	133
All-In Sustaining Cost	A\$/oz	1,517	1,649	1,623	1,492	1,587	1,539
Gold Sold	koz	99	71	96	58	76	134
Realised Gold Price	A\$/oz	2,126	2,247	2,336	2,408	2,423	2,417

St Barbara Managing Director and CEO Craig Jetson said, "The end of the December FY22 quarter marks a momentous period for St Barbara. Through the announcement of our acquisition of Bardoc Gold, we took decisive steps towards securing Leonora's future as a significant processing hub in the Western Australian goldfields. The acquisition uniquely positions St Barbara to add value to the high quality Bardoc ore bodies by processing the ore at the Leonora processing plant. We also had some very encouraging drilling results in the Old South Gwalia ore body, which has the potential to add new mining fronts higher up in the mine. By the end of this financial year we are targeting an updated Mineral Resource for this area."

"In conjunction with this, we continue to progress the Pre-Feasibility Study (PFS) on Tower Hill, Harbour Lights and associated processing plant expansion. Mine optimisations and designs were completed. The selection of open pit

<sup>1</sup> This report uses certain Non-IFRS measures as set out on the last page of this report. Unless otherwise noted, 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 2021' released to the ASX on 26 August 2021. This report has not been audited

<sup>2</sup> As stated in the market release titled "St Barbara to acquire Bardoc Gold via Board recommended scheme of arrangement" on 20 December 2021

<sup>3</sup> Total Recordable Injury Frequency Rate rolling 12-month average, mhrs – injuries per million hours



mining as the preferred development approach for Tower Hill means that we increased the resource base by 600koz. Infill drilling is underway at Tower Hill and Trevor Bore and will start at Harbour Lights this coming quarter."

"The end of the quarter also heralded the completion of laying the DSTP pipeline at Simberi. The success of this project has meant that Simberi has been able to re-commence production in early January 2022."

"Production from Leonora has been stronger than we anticipated which helps offset lower production guidance for the Atlantic operations which has continued to be impacted by delays in obtaining routine waste rock permits."

"Importantly, these significant growth and production achievements were underpinned by strong safety results in the quarter with TRIFR down 25% to 2.7 per million hours worked."

#### **Overview**

Group gold production for the December quarter was in line with the prior quarter. Production was slightly lower at Leonora in the second quarter due to lower grade, however the impact of this was largely offset by higher feed grades at Atlantic.

Drilling at Old South Gwalia has identified an area between 600mbs and 1000mbs, which has the potential to add mining fronts at significantly shallower depths. Drilling will continue to test the South Gwalia Series between 600mbs and 750mbs with an updated Mineral Resource expected to be completed in Q4 June FY22.

Completion of the Simberi DSTP pipeline was achieved during the December quarter, enabling the restarting of the process plant in early January 2022.

Group All-In Sustaining Cost for the September quarter was 6.5% higher at A\$1,587 per ounce compared to the prior quarter in line with slightly lower production at Leonora.

At 31 December 2021, St Barbara total cash at bank position was A\$94 million (up from A\$42 million on 30 September 2021). Total debt owing under the Company's syndicated facility on 31 December 2021 was C\$80 million and A\$50 million. A drawdown of A\$50 million on the Australian tranche during the quarter was a prudent measure taken to maintain liquidity in a volatile operating environment due to potential COVID-19 interruptions.

The COVID 19 pandemic is beginning to cause issues sourcing required labour and equipment for the Atlantic and Simberi operations. The company remains proactive and pragmatic in its approach to the management of the pandemic. It notes that there has been tightening of the labour market in Western Australia as a result of border closures. St Barbara has developed contingency plans to minimise any potential interruption which could be caused when the West Australian border does open. With the safety of its people and communities paramount, St Barbara continues to work with and follow the advice of State and Federal governments and health authorities.

Atlantic has continued to experience delays in obtaining routine waste rock storage permits and when combined with significant rainfall events in the December quarter and the updated forecasts from the improved block model and associated mine plan, FY22 production for Atlantic has been revised down to 55koz to 65koz (previously 65koz to 85koz). Due to the reduction in production per ounce AISC guidance is now expected to be between A\$1,650 to A\$1,850 per ounce (previously A\$1,305 to A\$1,515 per ounce).

Production guidance for Leonora is expected to be towards the top end of its range while Simberi's production is expected to be towards the bottom end of its guidance range. As a result, Group production guidance range has been narrowed to be between 305koz and 335koz (previously 305koz to 355koz).



## **Consolidated Gold Production & Guidance**

Production Summ Consolidated	ary	Q2 Dec FY21	Q3 Mar FY21	Q4 Jun FY21	Q1 Sep FY22	Q2 Dec FY22	Half Year FY22	Guidance FY22
St Barbara's finance 1 July to 30 June	ial year is	Qtr to 31 Dec 2020	Qtr to 31 Mar 2021	Qtr to 30 Jun 2021	Qtr to 30 Sep 2021	Qtr to 31 Dec 2021	6 months to 31 Dec 2021	Year to 30 June 2022
Production								
Atlantic	OZ	26,693	20,606	26,718	15,243	16,887	32,130	55-65 koz
Leonora	OZ	42,198	42,716	45,157	51,757	48,637	100,394	180-200 koz
Simberi	OZ	20,779	18,981	10,824	-	-	-	60-70 koz
Consolidated	OZ	89,670	82,303	82,698	67,000	65,523	132,522	305-335 koz
Mined Grade								
Atlantic	g/t	0.91	0.71	0.91	0.63	0.76	0.7	n/a
Leonora	g/t	8.3	8.0	6.5	8.6	6.8	7.68	n/a
Simberi	g/t	1.49	1.33	1.47	1.41	1.29	1.31	n/a
Total Cash Op. Co	sts							
Atlantic	A\$/oz	736	903	769	1,188	1,234	1,213	n/a
Leonora	A\$/oz	1,037	1,047	1,274	1,033	1,164	1,096	n/a
Simberi	A\$/oz	1,817	2,032	2,835	-	-	-	n/a
Consolidated	A\$/oz	1,128	1,237	1,314	1,071	1,184	1,127	n/a
All-In Sustaining (	Cost							
Atlantic	A\$/oz	999	1,128	1,011	1,504	1,396	1,447	1,650-1,850 <sup>1</sup>
Leonora	A\$/oz	1,573	1,555	1,663	1,488	1,653	1,568	1,605-1,720
Simberi	A\$/oz	2,070	2,426	2,964	-	-	-	1,600-1,850 <sup>2</sup>
Consolidated	A\$/oz	1,517	1,649	1,623	1,492	1,587	1,539	1,650-1,815



# Leonora Operations, Leonora, Western Australia

<b>Production Summary</b>		Q2 Dec FY21	Q3 Mar FY21	Q4 Jun FY21	Q1 Sep FY22	Q2 Dec FY22	H1 FY21	H1 FY22
Ore Mined	kt	157	168	195	179	193	242	372
Waste mined	kt	84	73	71	105	42	186	147
Mined grade	g/t	8.3	8.0	6.5	8.6	6.8	8.2	7.7
Ore milled <sup>1</sup>	kt	177	194	281	244	279	274	523
Milled grade <sup>1</sup>	g/t	7.6	7.1	5.2	6.8	5.6	7.6	6.2
Recovery	%	97	97	96	97	97	97	97
Gold production	oz	42,198	42,716	45,157	51,757	48,637	64,823	100,394
Gold sold	OZ	47,846	36,864	49,597	45,472	55,600	64,336	101,072
Realised gold price	A\$/oz	2,022	2,298	2,348	2,439	2,453	1,994	2,447
All-In Sustaining Cost (AISC)	A\$/oz produced	1,573	1,555	1,663	1,488	1,653	1,933	1,568

#### **Operations**

Leonora's gold production of 48.6koz was 6% lower than the prior quarter, driven by reduced head grade partially offset by increased mill throughput and gold production from purchased ore. During the quarter there was 45kt of ore purchased from the Linden Gold Alliance which contributed 4,732oz of gold in group production, an increase of 38% over the September quarter.

In November 2021 there was a fall of ground event which blocked access to high grade stopes requiring a change to the near-term mine plan. The stopes mined during the quarter were however lower grade and spread over a large area of the mine. Investigations into the cause of the fall of ground needed to be completed before work could be commenced on clearing the blockage. This caused inefficiencies in how the mining fleet had to be utilised to access available stopes. To compensate, it was decided to focus on delivering ore to the surface resulting in an 8% increase in ore mined during the quarter and a drop in waste ore movement.

Three new jumbo development drills have been delivered to site to accelerate the development metres in the next six months.

Offsetting the reduced grade from the mine was a 14% increase in mill throughput. This was driven by increased ore production from the mine, increased third party ore purchases and resumption of the treatment of stockpiled ore.

During the December quarter a continued focus on material movement underground saw the delivery and sustainability of initiatives to increase truck utilisation. Further use of remote equipment operation for the loading of the trucking fleet has sustained a 14% improvement in average daily haulage from 2.1kt per day to 2.4kt per day.

Leonora achieved an AISC of A\$1,653 per ounce, an increase of 11% over the September quarter. This was driven by the reduced gold production resulting from the lower head grades.

During the quarter, we continued our focus on safe material movement underground and increasing truck utilisation. Some excellent work by the Macmahon crews and the increased use of remote equipment for stope loading delivered a 14 per cent improvement in average daily haulage from 2.1 kt to 2.4 kt per day in December.

The site commenced the roll out of the infield critical control check process to support the Safety Always leadership and coaching work done during the quarter.

Leonora's strong performance year to date is forecast to continue for the rest of the financial year, therefore gold production for FY22 is expected to be at the top end of the guidance range with AISC to be within current range.

## **Accelerating the Leonora Province Plan**

The combined PFS for Tower Hill and Harbour Lights continued to progress to schedule. During the quarter the resource definition infill and geotechnical drilling campaign commenced, and results are reported under the Exploration section below. Mine design and scheduling was completed with open pit mining selected as the optimal development approach for Tower Hill. Accordingly, St Barbara announced an initial open pit Indicated Mineral

<sup>1</sup> Includes Gwalia mineralised waste, stockpile material and third-party ore purchases



Resource for Tower Hill of 21Mt at 1.8g/t for 1.2Moz at a 0.4g/t Au cut-off grade<sup>1</sup>. The Tower Hill open pit is just two kilometres from the existing processing facility and ore production rates of between 1Mtpa and 3Mtpa are being considered in the PFS.

The PFS work has identified cost effective opportunities to expand the Leonora processing plant capacity from 1.4Mtpa to 2.1Mtpa at an estimated cost of ~A\$30 million. Expanding the processing plant capacity by 50% will be achieved by upgrading the conveyor drives in the crushing circuit, adding a second ball mill to the grinding circuit and the addition of intertank screens through an expanded carbon-in-leach (CIL) circuit.

Work is also underway in the PFS to plan the incorporation of Glencore's Albion Process™ into the process flow. The proposed plant will be able to efficiently alternate between the treatment of refractory and free-milling ores for an anticipated capital cost of ~A\$110 to A\$120 million². The ability to process refractory ore will be unique to the Leonora processing plant within a 200km radius, providing new opportunities for acquisition and discovery.

Infill and geotechnical drilling will commence at Harbour Lights in Q3 March FY22. The infill drilling is being supplemented by a campaign to log and sample diamond drill core recovered from pre-1995 drilling to achieve greater definition on multi-element geological modelling to allow an updated resource for Harbour Lights in early FY23.

At Trevor Bore the planned RC drilling campaign commenced on schedule during the quarter with 27 holes completed of a 57 hole programme. Assay results are pending.

#### Planned acceleration following Bardoc Gold acquisition

On 20 December 2021 St Barbara announced its intention to acquire Bardoc Gold. Acquisition of Bardoc Gold will give St Barbara access to the advanced Aphrodite and Zoroastrian underground deposits. These deposits lie immediately adjacent to rail and highway infrastructure that connects them to the Leonora processing plant. This convenient road and rail connection provides the opportunity to accelerate the Leonora Province Plan through the rapid development of the Zoroastrian underground deposit as a near-term free-milling feed source which would then be followed by the development of the refractory Aphrodite underground deposit. Aphrodite is a high margin refractory ore source that will complement the Harbour Lights refractory deposit and accelerates the installation of the Glencore Albion Process™ at the Leonora processing plant.

Construction of the Zoroastrian underground mine is targeted to commence in Q4 June FY23 at an estimated capital cost of ~A\$15 million³. This assumes portal access via the existing Zoroastrian pit, with longhole open stoping as the mining method.

Construction of the Aphrodite underground mine is targeted to commence in Q1 September FY24 at an estimated capital cost of ~A\$30 million³. This assumes construction of a boxcut portal and the utilisation of a top-down mining method with conventional sub-level longhole open stoping techniques. It is anticipated that the refractory ore produced from the mine will be railed to the Leonora processing plant to coincide with completion of the necessary plant upgrades. Metallurgical test work has already been conducted on Aphrodite ore and has been determined as being amenable to the Albion Process<sup>TM</sup>.

The acquisition of Bardoc Gold remains subject to a scheme of arrangement and Bardoc shareholder approval and all target dates relating to Aphrodite and Zoroastrian are subject to implementation of the Bardoc scheme of arrangement.

<sup>1</sup> As stated in the market release titled "St Barbara to acquire Bardoc Gold via Board recommended scheme of arrangement" on 20 December 2021

<sup>2</sup> Subject to the outcome of the PFS and final studies

<sup>3</sup> Preliminary estimate only, to be the subject of detailed analysis as part of the proposed Leonora Province Plan Pre-Feasibility Study



# Simberi Operations, Papua New Guinea

Production Summa	ry	Q2 Dec FY21	Q3 Mar FY21	Q4 Jun FY21	Q1 Sep FY22	Q2 Dec FY22	H1 FY21	H1 FY22
Ore Mined	kt	576	617	430	21	184	1,343	205
Waste mined	kt	1,859	1,822	960	447	1,531	3,628	1,978
Mined grade	g/t	1.49	1.33	1.47	1.41	1.29	1.32	1.31
Ore milled	kt	796	803	457			1,499	
Milled grade	g/t	1.30	1.12	1.30			1.30	
Recovery	%	63	66	57			70	
Gold production	oz	20,779	18,981	10,824			43,918	
Gold sold	OZ	22,321	14,884	17,627			49,502	
Realised gold price	A\$/oz	2,559	2,317	2,343			2,582	
All-In Sustaining Cost (AISC)	A\$/oz produced	2,070	2,426	2,964			1,863	

#### **Operations**

The laying of the replacement DSTP pipeline was completed, with production recommencing after the quarter end, with the first gold pour occurring in the third week of January 2022. While the mill was offline a 130kt oxide ore stockpile on ROM pads was established. Multiple processing plant upgrades were also conducted during this time. These upgrades included the replacement of cyanide mixing and storage tanks, refurbishment of the rope conveyor, installation of downcomers in the carbon in leach (CIL) circuit to promote slurry mixing, a new lime circuit and several process control enhancements to CIL and thickener circuits.

Over the last six months the mine has been reconfigured to optimise waste haulage distance which has increased haulage capacity of ore to the 3.5Mtpa capacity processing plant. A new mine plan has also been developed targeting higher grade material and also enabling the batching of oxide, transitional and sulphide material which is expected to result in better recoveries than previously anticipated.

With the installation of the DSTP pipeline achieved late in December 2021, gold production is expected to be at the bottom end of the guidance range for FY22. The prior AISC guidance range had been calculated on the potential for production in the first half and was based on 12 months of cost divided by production from November to June. With production commencing in January 2022, the AISC guidance has now been recalculated based on production and cost for six months and includes the cost of ore stockpiles built in the first half. AISC cost guidance has been lowered to A\$1,600 to A\$1,850 per ounce (previously A\$2,465 to A\$2,650 per ounce).

Total capital expenditure guidance for Simberi remains the same, however A\$10 million has been reallocated out of Sustaining into Growth capital expenditure to more accurately reflect accounting for the DSTP pipeline which is able to support a sulphide expansion.

#### Simberi Sulphide Project update

The pre-investment phase continues to advance well with procurement of long lead items underway. The front end engineering and design (FEED) work continues and construction packages will be issued to market early in Q3 March FY22 for competitive pricing and identification of key contractors for the project. Submission of the FEED study to the Board for the final investment decision remains on schedule for the end of March FY22.

The Social and Environmental Impact Statement review has been completed by the Conservation and Environmental Protection Authority (CEPA).

Anticipated approval of the permit remains unchanged for Q3 Mar FY22, and pending approval, first sulphide ore production is expected in Q2 December FY24.



# **Atlantic Operations, Nova Scotia, Canada**

Production Summa	ry	Q2 Dec FY21	Q3 Mar FY21	Q4 Jun FY21	Q1 Sep FY22	Q2 Dec FY22	H1 FY21	H1 FY22
Ore Mined	kt	854	813	967	447	470	1,931	917
Waste mined	kt	1,087	1,214	1,284	1,753	1,511	2,224	3,264
Mined grade	g/t	0.91	0.71	0.91	0.63	0.76	0.93	0.70
Ore milled	kt	714	711	795	737	726	1,411	1,463
Milled grade	g/t	1.24	0.96	1.11	0.70	0.8	1.27	0.75
Recovery	%	94	93	94	92	91	94	91
Gold production	oz	26,693	20,606	26,718	15,243	16,887	53,919	32,130
Gold sold	OZ	29,294	19,581	28,312	12,446	20,767	52,083	33,213
Realised gold price	A\$/oz	1,966	2,099	2,311	2,264	2,363	1,913	2,326
All-In Sustaining Cost (AISC)	A\$/oz produced	999	1,128	1,011	1,504	1,396	1,002	1,447

#### **Operations**

Atlantic's gold production increased by 11% in the December quarter compared to the prior quarter. The increase was driven by a 14% increase in gold head grade, partially offset by minor reductions in mill throughput and recovery. The mining block model underperformed in the September quarter against expectations which necessitated the development of a new block model to better reflect the remaining resources and mining sequence of the pit as it nears the end of its life.

During the quarter there were two significant rainfall events which inundated the Touquoy pit, restricting the mining of Phase 1 until the water could be removed and mining safely restarted. As a result, more low grade stockpile ore was processed than originally planned and completion of Phase 1 mining will now occur early in the March quarter. Cessation of mining of the Touquoy pit remains on schedule for the first half of FY23.

Gold recoveries in the December quarter were 2% lower than the prior quarter due to planned preventative maintenance on the CIL circuit and higher volumes of lower grade stockpiles being processed. Compared to the prior quarter, Atlantic's AISC was 7% lower at A\$1,396 per ounce. This was driven by a combination of increased gold head grade and lower sustaining capital expenditure, which was elevated in the prior quarter by expenditure associated with a lift in the tailings wall.

As flagged in the Q1 quarterly report there were further delays by the Nova Scotia Department of Environment and Climate Change in issuing routine waste rock storage permits which forced the operations to temporarily store waste material in the pit which has blocked access to Phase 3. Sufficient waste rock permits have now been obtained to ensure continued operation for the rest of this financial year. The delay has however pushed mining of higher grade material out by three months. In the March quarter gold production is expected to be marginally lower, as mining activities will be focused on moving increased waste material and the processing of lower grade ore from Phase 2 and the upper levels of Phase 3. In the fourth quarter of the year, the mining fleet will be focused on moving waste material above Phase 3 which will result in predominately stockpiled ore being processed leading to lower production than originally expected. Ore which was to be mined in the fourth quarter of this financial year will now be mined in the first quarter of the next financial year.

Plans had been drafted to engage additional contract labour and equipment to avoid this delay but due to the COVID-19 pandemic, it has proven difficult to source sufficient labour and equipment for this to occur. The delay in obtaining waste rock storage permits when combined with the significant rainfall events in the December quarter and the updated forecasts from the improved block model and associated mine plan, FY22 production for Atlantic has been revised down to 55koz to 65koz (previously 65koz to 85koz). Due to the reduction in production, per ounce AISC guidance is now expected to be between A\$1,650 to A\$1,850 per ounce (previously A\$1,305 to A\$1,515 per ounce).

Sustaining and growth capital expenditure has also been revised down. Sustaining capital expenditure is now forecast to be between A\$10 million to \$15 million (previously A\$15 million to A\$20 million). Growth capital expenditure is now forecast to be A\$20 million to \$30 million (previously A\$30 million to A\$40 million). The lower forecast expenditure is to align with current run rates and expectations that sourcing required equipment and labour to execute all capex by year end will be difficult.



#### Atlantic growth projects

Permitting for the Beaver Dam project is well advanced, with the Information Requests Round 2 (IR2) submission made to the Impact Assessment Agency of Canada (IAAC) in October 2021. It is envisaged a third round of information requests (IRs) will be received and the current schedule expects full Environmental Impact Statement (EIS) approval by September 2022. It is at that time that a final investment decision (FID) will be made. Whilst the project team await FID, work continues to pursue opportunities for value creation including a review of the applicability of ore sorting and pre-planning for early works activities.

The Fifteen Mile Stream Project (FMS) Feasibility Study continues to progress with engineering principally focused on the tailing management facility and site geotechnical work. This study remains on target for completion in Q1 September FY23. Environmental sampling and modelling is underway in response to the IRs that were received as part of the FMS EIS.



#### Finance (unaudited)

- 76,546 ounces of gold were sold in Q2 December FY22, at an average realised gold price of A\$2,423 per ounce (Q1 September FY22: 57,918 ounces at A\$2,408 per ounce), with 9,000 ounces delivered to call options that matured in the quarter at a strike price of C\$2,050 per ounce (average of A\$2,240 per ounce). Additionally, 30,000 ounces were delivered to gold forward contracts at a strike price of A\$2,465 per ounce.
- Operational cash flow was A\$49 million. After growth capital, corporate costs and tax payments net cash contribution was A\$3 million.
- Total debt owing under the Company's syndicated facility on 31 December 2021 was C\$80 million and A\$50 million.
- The company drew down A\$50 million on the Australian tranche as a prudent measure to maintain liquidity in a highly volatile operating environment, potentially exacerbated by COVID-19 interruptions.
- Total cash at bank on 31 December 2021 was A\$94 million which is A\$52 million higher than prior quarter.
- Cash movements are summarised in the following table:

Cash movements & balance A\$M	Q2 Dec	Q3 Mar	Q4 Jun	Year	Q1 Sep	Q2 Dec
(unaudited)	FY21	FY21	FY21	FY21	FY22	FY22
Operating cash flow <sup>1</sup> Atlantic	33	20	41	111	8	26
Leonora	36	24	48	85	47	54
Simberi	17	(8)	11	55	(39)	(31)
Operational cash contribution	86	36	100	251	16	49
Growth capital Atlantic	(2)	(2)	(5)	(10)	(2)	(3)
Leonora	(5)	(3)	(2)	(16)	(5)	(1)
Simberi	(1)	(2)	(1)	(5)	(4)	(21)
Leonora mining equipment	-	=	(16)	(16)	-	-
Project costs	(6)	(5)	(13)	(27)	(4)	-
Corporate costs <sup>2</sup>	(6)	(7)	(6)	(26)	(16)	(7)
Corporate royalties	(3)	(2)	(2)	(8)	(3)	(3)
Exploration	(9)	(6)	(5)	(26)	(4)	(6)
Investments	(3)	-	-	(64)	(21)	-
Income tax payments	(15)	(9)	(4)	(30)	(15)	(8)
Working capital movement	5	4	-	(21)	(17)	3
Cash flows before finance costs	41	4	46	2	(75)	3
Net interest income/(expense)	-	(1)	-	(2)	(1)	-
Lease facility	-	-	16	16	(1)	-
Other financing	(6)	=	-	(7)	(1)	49
Syndicated facility repayments	-	-	(21)	(221)	-	-
Linden Gold Alliance Loan	(9)	(7)	-	(16)	-	-
Dividends paid	-	(23)	-	(45)	(13)	-
Net movement for period	26	(27)	41	(273)	(91)	52
Cash balance at start of quarter	93	119	92	406	133	42
Cash balance at end of quarter	119	92	133	133	42	94

<sup>1</sup> Net of sustaining capex

<sup>2</sup> Cash corporate costs in Q1 Sep FY22 include payment of short term incentives for employees (inc. key management personnel) accrued at 30 June 2021



Group Capex	Actual Q1 Sep FY22					Guidance FY22
	Sustaining	Growth	Sustaining	Growth	Sustaining	Growth
	A\$M	A\$M	A\$M	A\$M	A\$M	A\$M
Atlantic	2	2	1	3	10-15	20-30
Leonora	12	3	12	1	65-75	10-15
Simberi	1	4	1	21	5-10	35-45
Consolidated	15	9	14	25	80-100	65-90

Hedging in place at the date of this report comprises:

Financial Year	Volume ounces	Price \$/oz	Туре	Delivery	Delivery schedule
Jan 22 to Dec 22	48,010	C\$2,050	European call options	Jan 2022 to Dec 2022	Monthly
Jan 22 to Jun 22	60,000	A\$2,465	Forwards	Jan 2022 to June 2022	Monthly

# **Corporate activity**

During the quarter St Barbara agreed to acquire 100% of the issued capital of NSGold Corporation at a cost of approximately C\$8 million. NSGold's primary asset is its Mooseland advanced exploration property in Nova Scotia, approximately 14kms south of St Barbara's operating Touquoy mine at Moose River in the Halifax Regional Municipality.

#### **FY22 Guidance**

FY22 guidance is for consolidated gold production of between 305koz and 335koz (previously 305koz to 355koz) at an AISC of between A\$1,650 and A\$1,815 per ounce (previously A\$1,710 and A\$1,860 per ounce).

- Leonora's strong performance year to date is forecast to continue for the rest of the financial year and gold
  production is expected to be at the top end of the guidance range. AISC per ounce guidance remains
  unchanged.
- At Simberi the installation of the DSTP pipeline late in December 2021 has resulted in gold production to be at the bottom end of the guidance range. The prior AISC guidance range has been calculated on the potential for production in the first half and was based on 12 months cost divided by production from November to June. With production commencing in January 2022, the AISC guidance has now been recalculated based on production and cost for six months, which includes the cost of ore stockpiles. AISC cost guidance has been lowered to A\$1,600 to A\$1,850 per ounce (previously A\$2,465 to A\$2,650 per ounce).
- At Atlantic delays in obtaining waste rock permits have resulted in some production being deferred into next financial year and when combined with the significant rainfall events in the December quarter and the updated forecasts from the improved block model and associated mine plan the FY23 production has been revised down to 55koz 65koz (previously 65koz 85koz). Due to the reduction in production per ounce AISC guidance is now expected to be between A\$1,650 to A\$1,850 per ounce (previously A\$1,305 to A\$1,515 per ounce).

	Gold production	AISC	Sustaining capex	Growth capex
	(koz)	(A\$/oz)	(A\$M)	(A\$M)
Atlantic Operations	55 - 65	$1,650 - 1,850^{1}$	10 – 15	20 – 30
Leonora Operations	180 – 200	1,605 – 1,720	65 – 75	10 – 15
Simberi Operations	60 – 70	1,600 - 1,850 <sup>2</sup>	5 – 10	35 – 45
Consolidated	305 – 335	1,650 – 1,815	80 – 100	65 – 90



# **Exploration activities**

#### **Australia**

#### **Gwalia mine exploration, Western Australia**

As outlined in St Barbara's June 2021 release<sup>1</sup>, work has continued on a drilling program testing the unmined remnant South Gwalia Series (referred to as Old South Gwalia) between 600 and 1000mbs in the upper historic portion of the mine. This drilling has successfully confirmed the presence of mineralised lodes in this area. The intercepts are typical of the South Gwalia Series in other parts of the mine which comprise the high grade SGS1 and SGS2 lodes and a broader halo of lower grade mineralisation.

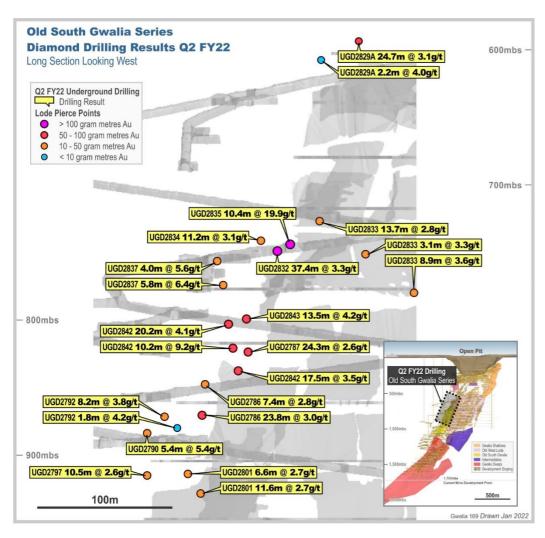
Better results include:

UGD2835: 10.4m @ 19.9g/t Au at 751mbs,

UGD2832: 37.4m @ 3.3g//t Au at 756mbs, and

UGD2842: 10.2m @ 9.2g/t Au at 825mbs,

Drilling will continue to test the South Gwalia Series between 600mbs and 750mbs with an updated Mineral Resource expected to be completed in Q4 FY22. This updated Mineral Resource has the potential to add mining fronts at significantly shallower depths in the mine.



<sup>1</sup> As stated in the market release titled "Progress on the Leonora Province Plan" on 21 June 2021



#### Leonora near mine exploration, Western Australia

A Resource definition drilling program commenced at Tower Hill with 11.5 holes completed for 3,091m. Assays have been returned for the first five holes with the best results including:

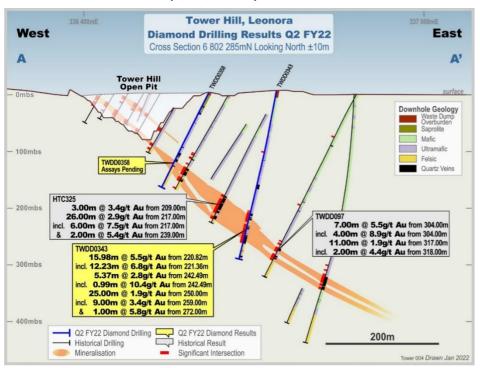
TWDD0340: 7.91m @ 4.1g/t Au from 232.02m, including 3.68m @ 7.5g/t Au from 234.39m

TWDD0343: 15.98m @ 5.5g/t Au from 220.82m, including 12.23m @ 6.8g/t Au from 221.36m and 25m @ 1.9g/t Au from 250m

Resource definition and geotechnical drilling will continue at Tower Hill and Harbour Lights throughout Q3 March FY22.

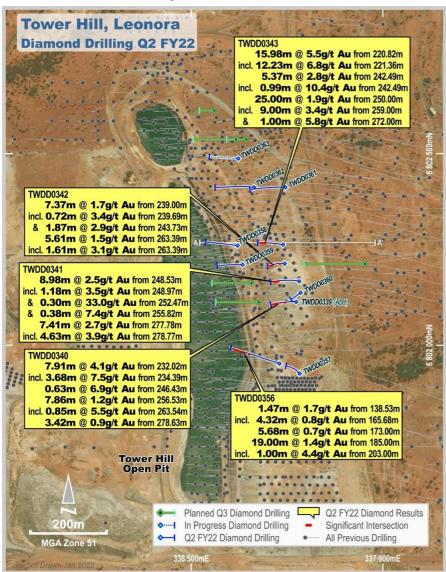
Exploration diamond drilling testing for high grade gold mineralisation down plunge of Tower Hill and Harbour Lights as well as in between Gwalia, Tower Hill and Harbour Lights is planned to commence in April 2022.

#### Tower Hill Cross Section (6,802,285mN) Q2 FY22 Results





#### **Tower Hill Diamond Drilling Q2 FY22 Results**



#### Trevor Bore, Western Australia

A 57 hole 4,702m RC drill program is underway at Trevor Bore on a 40m x 30m spacing, testing a 700m strike length. In December 2021, 27 RC holes for 2,381m were completed at Trevor Bore with assay results anticipated late in January 2022. The remaining 30 RC holes for 2,383m will be completed in January 2022.



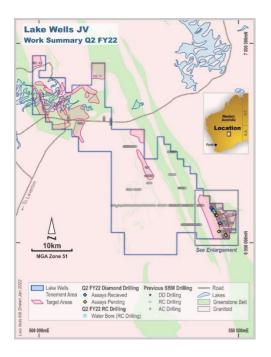
#### **Trevor Bore RC Drilling Q2 FY22**



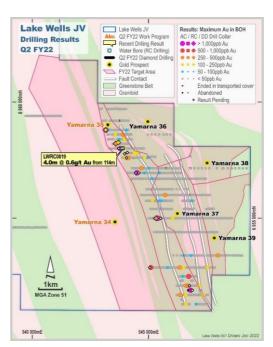
#### Lake Wells Gold Project, Western Australia

A 17 hole RC pre-collar diamond tail drill program for 4,563m testing gold in bedrock anomalies along a 3.4km strike length of the Yamarna Shear Zone was completed in December 2021. The total program comprised 17 holes for 510m of RC and 4,053m of diamond drilling. Drilling intersected zones of quartz veining with visible arsenopyrite and pyrite associated with ductile deformation proximal to the boundary between metasediments and mafic volcanics. Assays have been returned for three holes and a portion of two holes with no significant results. Assay results for the remaining holes are expected in Q3 March FY22.

#### **Lake Wells Gold Project Drilling Location Map**



# Lake Wells Drilling Location Map (Enlargement) – maximum gold in bedrock





#### Pinjin Project, Western Australia

St Barbara Limited entered into an Earn-In and Joint Venture with Plowden Resources Pty Ltd (a wholly owned subsidiary of Walcot Capital Pty Ltd) covering 7 tenements (E28/2494, E28/2264, E28/2447, E28/2334, E28/2327, E28/2446, E28/2313) at the Pinjin South Project on 23 December 2021. Under the agreement, Plowden Resources is entitled to earn-in up to 70% interest as specified by four earn-in periods:

- 1) 15% Participating Interest by funding A\$1.6 million within 24 months;
- 2) 25% Participating Interest by funding A\$2.6 million within 36 months;
- 3) 50% Participating Interest by funding A\$5.6 million within 48 months; and
- 4) 70% Participating Interest by funding A\$15.6 million within 72 months.

A minimum exploration spend of \$2.6 million is required within the first 36 month Earn-In period.

St Barbara also has an Earn-In and Joint Venture agreement with E79 Gold Mines Limited covering 8 tenements (E28/2283, E28/2284, E28/2375, E31/0999, E31/1005, E31/1007, E31/1056, E31/1082). Under the agreement, E79 Gold Mines Limited is entitled to earn-in up to 80% interest as specified by two earn-in periods:

- 1) 51% Participating Interest by funding A\$310,000 within 12 months; and
- 2) 80% Participating Interest by funding A\$810,000 within 36 months.

An initial aircore drill program of 40 holes for 3,330m was completed in Q2 December FY22 with results pending. Further aircore drilling has commenced in January 2022.

#### **Back Creek. New South Wales**

No field activities occurred during the quarter. Subject to access and rig availability, aircore and / or diamond drilling is expected to commence in February or March 2022.

#### **Drummartin Joint Venture, Victoria**

Catalyst Metals Ltd commenced an infill aircore drill program of up to 85 holes for 12,750m in December 2021. The program follows up encouraging gold in bedrock results returned from two targets highlighted by FY21 aircore drilling. To date, 4 holes (DMA090 to 93) for 603m have been completed. The program is expected to continue through H2 FY22. A three hole, 1,200m diamond drill program is planned in H2 FY22 to test the best gold in bedrock anomalies.

#### Canada

Across the Nova Scotia exploration camps, planned drilling programmes were voluntarily deferred to allow consultations with First Nations groups pursuant to revised consultation processes. Consultations have been positive and constructive with recommencement of programmes being planned for Q4 FY22 subject to weather conditions.

#### **Moose River Corridor**

Mapping and six soil samples were collected during the quarter.

#### **Touquoy Camp**

No field activities occurred during the quarter.

#### **Southwest Regional**

373 Till and six rock chip samples were collected during the quarter as part of a large regional surface sampling program. To date, 689 Till and 131 rock chip samples have been collected over the tenements testing 11 targets.

#### **Northeast Regional**

18 Till and four rock chip samples were collected during the quarter.



# **Papua New Guinea**

#### Simberi, Tatau & Tabar Islands

Diamond drilling of oxide, transitional and sulphide targets on Simberi Island (ML136) to define potential additional Inferred to Indicated Resources continued through Q2 December FY22. 15 diamond drill holes for 1,224.6m were completed at Andora and Bekou South during the quarter.

Best preliminary results returned from Andora include:

SDH445: 44m @ 1.6g/t Au from 18m (Tr/Su), including 12m @ 3.7g/t Au from 19m (Tr/Su), and

SDH444: 17m @ 3.0g/t Au from 16m (Tr/Su).

SDH450: 17m @ 1.3g/t Au from 84m (Su).

Best results preliminary returned from Bekou South include:

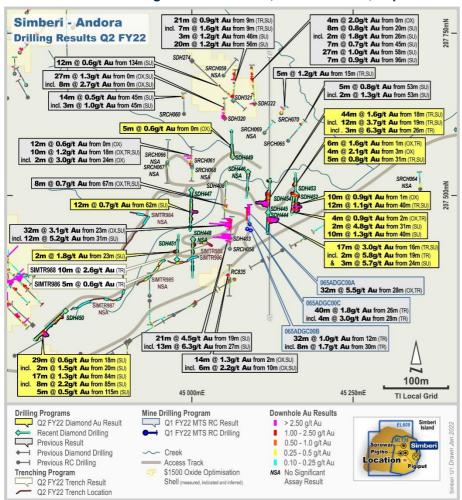
SDH455: 5m @ 5.3g/t Au from 0m (Ox), and 15m @ 1.0g/t Au from 26m (Ox/Tr).

Five trenches for 360 m were completed at Andora. Best preliminary results include:

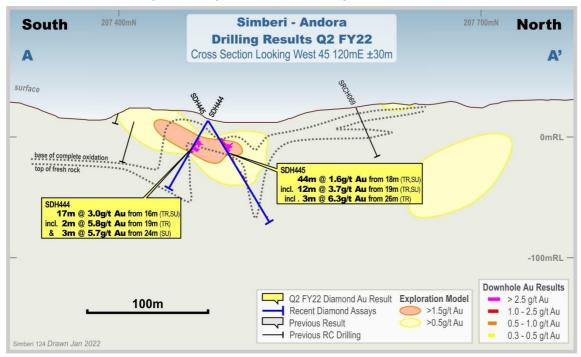
SIMTR988:10m @ 2.6g/t Au.

Drilling will continue through Q3 March FY22 at Bekou South, upgrading an Inferred Resource to Indicated and then completing follow-up drilling at Trotsky.

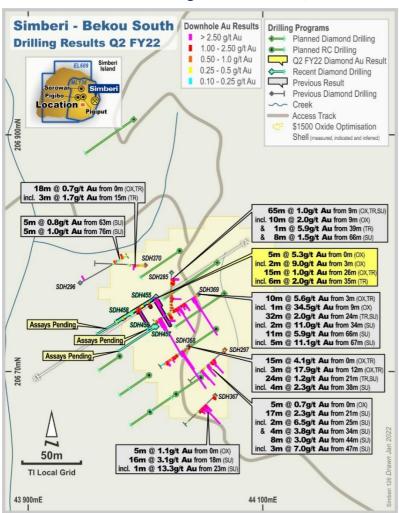
#### Andora Diamond Drilling Q2 FY22 Results, Simberi Island, Papua New Guinea



#### Andora Cross Section (45,120mE), Simberi Island, Papua New Guinea



#### Bekou South Diamond Drilling Q2 FY22 Results, Simberi Island, Papua New Guinea





#### **Group Exploration Expenditure (unaudited)**

Group Exploration	Actual Year FY21	Actual Q1 Sep FY22	Actual Q2 Dec FY22	Guidance FY22
	A\$M	A\$M	A\$M	A\$M
Australia*	14	1	3	15-18
Tabar Island Group, Papua New Guinea*	4	1	1	5-6
Nova Scotia, Canada*	8	1	1	7-8
Consolidated	26	3	5	27-32

<sup>\*</sup> These items are expensed

# Quarterly briefing and audio webcast

Mr Craig Jetson, Managing Director & CEO, will brief analysts and investors on the Q2 December FY22 Quarterly Report at 11:00 am Australian Eastern Daylight Time (UTC + 11 hours) on Tuesday 25 January 2022.

Analysts and investors can register for the briefing at <a href="https://s1.c-conf.com/diamondpass/10018976-dsm33.html">https://s1.c-conf.com/diamondpass/10018976-dsm33.html</a>

An audio webcast will be available live and after the event on St Barbara's website at <a href="stbarbara.com.au/investors/webcast/">stbarbara.com.au/investors/webcast/</a> or by <a href="clicking here">clicking here</a>. The audio webcast is 'listen only' and does not enable questions.

#### For more information

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#### **Authorised by**

Craig Jetson

Managing Director & CEO
25 January 2022



# **Share Capital**

Issued shares	ASX:SBM
Opening Balance 30 September 2021	709,527,049
Issued	Nil
Closing balance 31 December 2021	709,527,049

Unlisted employee rights	ASX:SBMAK
Opening balance 30 September 2021	2,847,205
Issued	3,499,564
Exercised as shares	Nil
Lapsed <sup>1</sup>	-218,472
Closing balance 31 December 2021	6,128,297
Comprises rights expiring:	
30 June 2022	1,117,073
30 June 2023	1,487,497
30 June 2024	3,499,564
Unlisted rights issued under the NED Equity Plan	24,163
Closing balance 31 December 2021	6,128,297

<sup>1</sup> Rights lapsed due to conditions not being met



# **Corporate Directory**

St Barbara Limited ABN 36 009 165 066

#### **Board of Directors**

Tim Netscher, Non-Executive Chairman

Craig Jetson, Managing Director & CEO

Steven Dean, Non-Executive Director

Kerry Gleeson, Non-Executive Director

Stef Loader, Non-Executive Director

David Moroney, Non-Executive Director

#### **Company Secretary**

Sarah Standish, General Counsel & Company Secretary

#### **Executives**

Craig Jetson, Managing Director & CEO

Lucas Welsh, Chief Financial Officer

Val Madsen, Executive General Manager People

Peter Cowley, Chief Operating Officer (Australasia)

Meryl Jones, President Americas

Andrew Strelein, Chief Development Officer

#### **Registered Office**

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#### 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

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

Financial year commences 1 July and ends 30 June.

Q1 Sep FY22 = quarter to 30 Sep 2021

Q2 Dec FY22 = quarter to 31 Dec 2021

Q3 Mar FY22 = quarter to 31 Mar 2022

Q4 Jun FY22 = quarter to 30 Jun 2022

# **Shareholder Enquiries**

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## **Investor Relations**

Chris Maitland, Head of Investor Relations

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## **Substantial Shareholders**

% of Holdings <sup>1</sup>	
Van Eck Associates Corporation	9.9%
L1 Capital	8.96%
IPConcept	5.09%

# Scheduled future reporting

Date	Report
23 February 2022	FY22 Half Year Financial Report

Dates are tentative and subject to change

<sup>1</sup> As notified by the substantial shareholder up to 31 December 2021

# **+**

# **Production and All-In Sustaining Cost**

Production summary			Atlant	tic Operati	ons			Leono	ra Operati	ons				Simberi		
		Q2 Dec FY21	Q3 Mar FY21	Q4 Jun FY21	Q1 Sep FY22	Q2 Dec FY22	Q2 Dec FY21	Q3 Mar FY21	Q4 Jun FY21	Q1 Sep FY22	Q2 Dec FY22	Q2 Dec FY21	Q3 Mar FY21	Q4 Jun FY21	Q1 Sep FY22	Q2 Dec FY22
Ore Mined	kt	854	813	967	447	470	157	168	195	179	193	576	617	430	21	184
Waste mined	kt	1,087	1,214	1,284	1,753	1,511	84	73	71	105	147	1,859	1,822	960	447	1,531
Mined grade	g/t	0.91	0.71	0.91	0.63	0.76	8.3	8.0	6.5	8.6	7.7	1.49	1.33	1.47	1.41	1.29
Ore milled <sup>1</sup>	kt	714	711	795	737	726	177	194	281	244	523	796	803	457		
Milled grade <sup>1</sup>	g/t	1.24	0.96	1.11	0.70	0.80	7.6	7.1	5.2	6.8	6.2	1.30	1.12	1.30		
Recovery	%	94	93	94	92	91	97	97	96	97	97	63	66	57		
Gold production	oz	26,693	20,606	26,718	15,243	16,887	42,198	42,716	45,157	51,757	48,637	20,779	18,981	10,824		
Gold sold	OZ	29,294	19,581	28,312	12,446	20,767	47,846	36,864	49,597	45,472	55,600	22,321	14,884	17,627		
Realised gold price	A\$/oz	1,966	2,099	2,311	2,264	2,363	2,022	2,298	2,348	2,439	2,453	2,559	2,317	2,343		
All-In Sustaining Cost <sup>2</sup> A\$/oz produced																
Mining		280	344	268	508	442	711	734	955	658	756	760	852	1,285		
Processing		302	405	333	488	493	101	163	173	177	176	652	733	843		
Site Services		139	179	145	232	245	117	104	79	114	104	362	405	616		
Stripping and ore inventory adj		(29)	(65)	(31)	(78)	(7)	11	(3)	4	32	44	-	-	-		
		692	863	715	1,150	1,173	964	998	1,211	981	1,080	1,774	1,990	2,744		
By-product credits		(2)	(2)	(2)	(2)	(1)	(3)	(3)	(3)	(3)	(3)	(33)	(18)	(29)		
Third party refining & transport		3	2	3	3	4	2	2	2	1	1	7	16	25		
Royalties		43	40	53	37	58	74	50	64	54	86	69	44	95		
Total cash operating costs		736	903	769	1,188	1,234	1,013	1,047	1,274	1,033	1,164	1,817	2,032	2,835		
Corporate and administration		75	89	67	123	75	75	89	67	88	94	75	89	67		
Corporate royalty <sup>3</sup>		-	-	-	-	-	59	43	49	46	48	-	-	-		
Rehabilitation		13	16	18	31	28	8	8	8	6	7	35	38	74		
Capitalised mine development <sup>1</sup>		-	-	-	-	-	342	312	184	208	203	-	-	-		
Sustaining capital expenditure		175	120	157	162	59	76	56	81	28	50	143	267	(12)		
All-In Sustaining Cost (AISC) (Gwa	ılia) 1									1,409	1,566					
Ore purchased <sup>1</sup>										79	87					
All-In Sustaining Cost (AISC)		999	1,128	1,011	1,504	1,396	1,573	1,555	1,663	1,488	1,653	2,070	2,426	2,964		

<sup>1</sup> Includes Gwalia mineralised waste, stockpile ore and third party purchased ore

<sup>2</sup> Non-IFRS measure, refer Appendix

<sup>3</sup> These items only relevant to Gwalia



#### **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. To the maximum extent permitted by law, neither the Company, their directors, employees or agents, advisers, nor any other person accepts any liability, including, without limitation, any liability arising from fault or negligence on the part of any of them or any other person, for any loss arising from the use of this presentation or its contents or otherwise arising in connection with it.

#### 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.

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.

**Cash Contribution** is cash flow from operations before finance costs, refer reconciliation of cash movement earlier in this quarterly report.

**Cash Operating Costs** are calculated according to common mining industry practice using The Gold Institute (USA) Production Cost Standard (1999 revision).

#### **Competent Persons Statement**

#### **Exploration results**

The information in this report that relates to Exploration Results 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 is based on information compiled by Mr Eduard Hanekom, who is a Member of The Australian Institute of Geoscientists. Mr Hanekom 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 Hanekom 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 (other than Tower Hill Mineral Resources estimates) is extracted from the report titled 'Ore Reserves and Mineral Resources Statements 30 June 2021' released to the Australian Securities Exchange (ASX) on 26 August 2021 (Original Report) and available to view at www.stbarbara.com.au and for which Competent Persons' consents were obtained. Each Competent Person's consent remains 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 Report (other than Tower Hill) 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 Report 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 Report.

Full details are contained in Original Report available at stbarbara.com.au.

Any information in this report that relates to Tower Hill Mineral Resource estimates has been extracted from the ASX announcement released by St Barbara entitled "Strategic acquisition of Bardoc accelerates Leonora Province Plan" dated 20 December 2021 which is available to view on <a href="https://www.stbarbara.com.au">www.stbarbara.com.au</a> and <a href="https://www.asx.com.au">www.asx.com.au</a>.



# **Exploration tables**

Table 1: South Gwalia Series DD Significant Intercepts – Gwalia Mine, Western Australia

Hole ID	li	ntercept mid-poi	nt	F		DILLIAG data	True	Cuada
Hole ID	East	North	mbs	From	То	DH Width	Width	Grade
UGD2835	8200	6235	751	95.35	108.90	13.6	10.4	19.9
including							0.8	198.8
UGD2833	8177	6256	734	105.13	120.76	15.6	13.7	2.8
including							0.9	10.8
UGD2833	8161	6289	758	156.40	160.70	4.3	3.1	3.3
UGD2833	8144	6322	4595	198.60	208.26	9.7	8.9	3.6
UGD2834	8201	6214	748	79.63	93.50	13.9	11.2	3.1
including							1.5	11.0
UGD2829A	8049	6257	619	137.42	140.80	3.4	2.2	4.0
UGD2829A	8021	6284	606	143.30	222.97	79.7	24.7	3.1
including							2.0	6.3
including							5.0	17.8
UGD2843	8280	6204	804	119.21	133.15	13.9	13.5	4.2
UGD2832	8149	6226	756	90.65	128.80	38.2	37.4	3.3
including							2.6	16.6
UGD2837	8229	6183	763	84.70	88.90	4.2	4.0	5.6
UGD2837	8222	6187	780	101.90	109.00	7.1	5.8	6.4
UGD2842	8279	6191	808	116.50	138.89	22.4	20.2	4.1
including							2.7	9.9
including							1.3	18.5
UGD2842	8270	6194	825	142.00	152.94	10.9	10.2	9.2
including							1.5	55.8
UGD2842	8262	6198	841	157.00	174.55	17.6	17.5	3.5
including							3.0	10.7
UGD2801	8383	6162	915	64.90	72.00	7.1	6.6	2.7
UGD2801	8375	6171	929	80.00	94.00	14.0	11.6	2.7
including							0.5	29.2
UGD2792	8339	6145	874	68.40	78.00	9.6	8.2	3.8
UGD2792	8312	6154	882	101.00	104.10	3.1	1.8	4.2
UGD2797	8383	6133	916	60.00	70.80	10.8	10.5	2.6
UGD2790	8319	6133	886	89.00	95.80	6.8	5.4	5.4
UGD2787	8299	6205	828	89.20	115.25	26.1	24.3	2.6
including							3.5	6.2
UGD2786	8331	6174	851	93.95	101.88	7.9	7.4	2.8
UGD2786	8320	6172	873	108.70	133.55	24.9	23.8	3.0



Table 2: Tower Hill Significant Intercepts - Leonora, WA

	North	East	RL	Dip/ Azimuth	Metres Below Surface			own-hole sed Intersect	tion
Hole Id				4		From	То	Interval	Gold grade
	m	M	m	degrees	m	m	m	m	g/t Au
TWDD0340	6,802,136	336,774	381	-81 / 277	227.3	232.02	239.93	7.91	4.1
including						234.39	238.07	3.68	7.5
					237	246.43	247.06	0.63	6.9
					249.3	256.53	264.39	7.86	1.2
including						263.54	264.39	0.85	5.5
					250.4	278.63	282.05	3.42	0.9
TWDD0341	6,802,190	336,782	379	-81 / 276	240.4	248.53	257.51	8.98	2.5
including						248.97	250.15	1.18	3.5
and						252.47	252.77	0.3	33.0
and						255.82	256.2	0.38	7.4
					267.2	277.78	285.19	7.41	2.7
including						278.77	283.4	4.63	3.9
TWDD0342	6,802,236	336,744	379	-85 / 278	239.2	239	246.37	7.37	1.7
including						239.69	240.41	0.72	3.4
and						243.73	245.6	1.87	2.9
					261.9	263.39	269	5.61	1.5
including						263.39	265	1.61	3.1
TWDD0343	6,802,285	336,740	379	-79 / 281	220.9	220.82	236.8	15.98	5.5
including						221.36	233.59	12.23	6.8
					236.5	242.49	247.86	5.37	2.8
including						242.49	243.48	0.99	10.4
					253.0	250	275	25	1.9
including						259	268	9	3.4
and						272	273	1	5.8
TWDD0356	6,801,975	336,730	383	-52 / 285	78	138.53	140	1.47	1.7
					80.2	165.68	170	4.32	0.8
					80.75	173	178.68	5.68	0.7
					92.8	185	204	19	1.4
including						203	204	1	4.4

Coordinates and Azimuth referenced to MGA94 zone 51 Grid.

Reported intercepts are all down hole lengths.

Dip and azimuth represent drill hole at collar.

Numbers have been rounded to one decimal place.



Table 3: Lake Wells Significant Intercepts - Lake Wells, WA

	North	East	RL	Dip/ Azimuth	Metres Below Surface	Down-hole Mineralised Intersection				
Hole Id		2.4		4		From	То	Interval	Gold grade	
	m	M	m	degrees	m	m	m	m	g/t Au	
LWDD0004	6,958,799	543,158	520	-61 / 090		No Significant Results				
LWDD0005	6,958,206	543,584	521	-50 / 067			No Sign	ificant Resul	ts	
LWDD0006*	6,958,261	543,702	509	-51 / 067			No Sign	ificant Resul	ts	
LWDD0015*	6,954,997	545,325	521	-52 / 093		No Significant Results				
LWRC0019	6,958,009	543,888	520	-90 / 000	114	114 118 4 0.6				

Coordinates and Azimuth referenced to MGA94 zone 51 Grid. Reported intercepts are all down hole lengths. Dip and azimuth represent drill hole at collar. Numbers have been rounded to one decimal place. LWDD0006 – results received for 20.9m to 174. LWDD0015 – results received for 141m to 180m.



Table 4: Simberi DD Significant Intercepts - Simberi Island, Papua New Guinea

	North	East	RL	Dip/ Azimuth	Total Depth		Down-hole Mineralised Intersection				
Hole Id	m	m	m	degrees	m	Lode	From	То	Interval	Gold grade	
							m	m	m	g/t Au	
SDH441 (Bekou South)	207,241	44,319	101.3	-60 / 333	105.0	TR,SU	4.0	25.0	21.0	0.8	
including						SU	21.0	25.0	4.0	2.0	
						SU	48.0	52.0	4.0	2.0	
SDH442 (Sorowar NW)	210,519	43,721	166.4	-59 / 045	100.0	TR,SU	58.0	74.0	16.0	0.6	
SDH444 (Andora)*	207,474	45,118	13.6	-60 / 182	64.7	TR,SU	16.0	33.0	17.0	3.0	
including						TR	19.0	21.0	2.0	5.8	
and						SU	24.0	27.0	3.0	5.7	
SDH445 (Andora)*	207,474	45,118	13.5	-59 / 002	98.1	TR,SU	18.0	62.0	44.0	1.6	
including						TR,SU	19.0	31.0	12.0	3.7	
including						TR	26.0	29.0	3.0	6.3	
SDH446 (Andora)*	207,536	45,087	12.3	-60 / 182	79.4		No Significant Results				
SDH447 (Andora)*	207,508	44,999	17.2	-60 / 182	122.7	SU	62.0	74.0	12.0	0.7	
SDH448 (Andora)*	207,433	45,002	15.9	-59 / 184	116.0		No Si	gnificant	Results		
SDH449 (Andora)*	207,559	45,063	13.6	-59 / 356	80.0	ОХ	0.0	5.0	5.0	0.6	
SDH450 (Andora)*	207,322	44,804	38.5	-59 / 227	123.4	SU	18.0	47.0	29.0	0.6	
including						SU	20.0	22.0	2.0	1.5	
						SU	84.0	101.0	17.0	1.3	
including						SU	85.0	93.0	8.0	2.2	
						SU	115.0	120.0	5.0	0.5	
SDH451 (Andora)*	207,401	44,977	27.7	-60 / 004	75.0	SU	23.0	25.0	2.0	1.8	
SDH452 (Andora)*	207,502	45,162	15.7	-60 / 182	60.0	ОХ	1.0	11.0	10.0	0.9	
						TR,SU	40.0	52.0	12.0	1.1	
SDH453 (Andora)*	207,500	45,160	16.0	-60 / 004	69.0	OX,TR	1.0	7.0	6.0	1.6	
						ОХ	3.0	7.0	4.0	2.1	
						TR,SU	31.0	36.0	5.0	0.8	
SDH454 (Andora)*	207,502	45,158	13.5	-60 / 187	59.4	OX,TR	2.0	6.0	4.0	0.9	
						SU	31.0	33.0	2.0	4.8	
						SU	40.0	50.0	10.0	1.3	
SDH455 (Bekou South)*	206,762	44,009	42.9	-60 / 238.6	79.0	ОХ	0.0	5.0	5.0	5.3	
including						ОХ	3.0	5.0	2.0	9.0	
						OX,TR	26.0	41.0	15.0	1.0	
including						TR	35.0	41.0	6.0	2.0	

Coordinates and Azimuth referenced to Tabar Island Grid (TIG).

\*Site Lab Aqua Regia Au results

Reported intercepts are all down hole lengths.

OX: oxide, SU: sulphide, TR: transitional material.



Table 5: Simberi RC Significant Intercepts - Simberi Island, Papua New Guinea

	North	East	RL	Dip/ Azimuth	Total Depth		M		vn-hole d Intersect	ion
Hole Id	m	m	m	degrees	m	Lode	From	То	Interval	Gold grade
							m	m	m	g/t Au
SRCH110 (Botlu South)	208,229	43,046	152.0	-60 / 225	60.0	ОХ	7.0	18.0	11.0	0.7
including						ОХ	10.0	12.0	2.0	1.6
SRCH116 (Botlu South)	208,097	43,037	157.7	-60 / 045	60.0	TR,SU	14.0	20.0	6.0	0.6
SRCH117 (Trotsky)	208,713	43,220	210.3	-60 / 210	51.0	OX,SU	12.0	34.0	22.0	0.9
including						ОХ	28.0	30.0	2.0	3.8
SRCH120 (Trotsky)	208,809	43,250	221.1	-60 / 210	120.0		No Sigr	nificant R	esults	
SRCH121 (Trotsky)	208,836	43,289	223.3	-60 / 210	100.0	OX,TR,SU	35.0	86.0	51.0	1.5
including						SU	35.0	42.0	7.0	6.6
including						SU	39.0	41.0	2.0	18.1
and						SU	73.0	76.0	3.0	2.4
SRCH122 (Trotsky)	208,900	43,252	198.4	-60 / 210	100.0	SU	62.0	67.0	5.0	0.6
						SU	75.0	77.0	2.0	2.2
						SU	93.0	100.0	7.0	3.3
including						SU	93.0	96.0	3.0	6.1
SRCH123 (Trotsky)	208,902	43,255	198.3	-60 / 120	130.0	ОХ	11.0	14.0	3.0	7.6
including						ОХ	11.0	12.0	1.0	15.3
						OX,TR,SU	51.0	90.0	39.0	2.0
including						ОХ	67.0	77.0	10.0	6.1
including						ОХ	74.0	77.0	3.0	16.1
						SU	102.0	116.0	14.0	0.8
						SU	124.0	128.0	4.0	1.0

Coordinates and Azimuth referenced to Tabar Island Grid (TIG).

Reported intercepts are all down hole lengths.

OX: oxide, SU: sulphide, TR: transitional material.



#### GWALIA - JORC Code, 2012 Edition - Table 1

#### **Gwalia - Section 1 Sampling Techniques and Data**

Criteria	Comments
Sampling Techniques	<ul> <li>Sampling boundaries are geologically defined and 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 routinely 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>
Drilling Techniques	<ul> <li>Surface and underground diamond drill holes used NQ2 (50.6mm) sized core (standard tubes). SBM surface drill holes have been down hole surveyed by north seeking gyro and underground drill holes have been surveyed by single shot electronic camera. Surface holes are orientated using a Reflex ACT II RD orientation tool.</li> </ul>
Drill Sample Recovery	<ul> <li>Core is metre marked and orientated and checked against driller's blocks to ensure that any core loss is accounted for. Sample recovery was rarely less than 100%. Minor occurrences of core loss can in most instances be attributed to drilling conditions and not ground conditions.</li> </ul>
Logging	<ul> <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> </ul>
Sub-sampling techniques and sample preparation	• SBM half core is cut using a core saw before being sent to an accredited lab (SGS laboratory in Kalgoorlie) where the entire sample is crushed to achieve particle size <4mm followed by complete pulverisation (90% passing 75 □m).
Quality of assay data and laboratory tests	SBM samples were analysed for gold using fire assay with a 50g charge and analysis by flame Atomic Absorption Spectrometry (AAS). QC included insertion of 3 commercial standards (1 per 25 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.
Verification of sampling and assay	<ul> <li>Sampling data is recorded electronically in spreadsheets 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>
Location of data points	<ul> <li>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> </ul>
Data spacing and distribution	<ul> <li>Data spacing for underground grade control drilling is approximately 10m x 15m, resource definition is approximately 20m x 30m and surface drilling is approximately 60m x 80m. Drilling data is sufficient to establish continuity for all lodes.</li> </ul>
Orientation of data in relation to geological structure	Sampling is perpendicular to lode orientations and based on past production and underground mapping.
Sample security	<ul> <li>Only SBM personnel or approved contractors are allowed on drill sites; drill samples are only removed from drill site by approved contractors to SBM's secure core logging/processing facility; cut core is consigned to accredited laboratories for sample preparation and analysis.</li> </ul>
Audits or reviews	<ul> <li>Regular reviews of core logging and sampling have been completed through SBM mentoring and auditing.         Laboratory inspections have been conducted throughout the review period by SBM personnel. Inspections are documented electronically and stored on secure company server. No significant issues were identified.     </li> </ul>

#### Section 2 Reporting of Exploration Results - Gwalia

Criteria	Comments
Mineral Tenement and Land Tenure Status	The reported drilling is completely located within M37/25 which is 100% owned by St Barbara Limited. The tenement is in good standing at the time of reporting.
Exploration Done by Other Parties	Pre-existing data in the area covered by this drilling is limited to face samples on historic development (pre-1963).

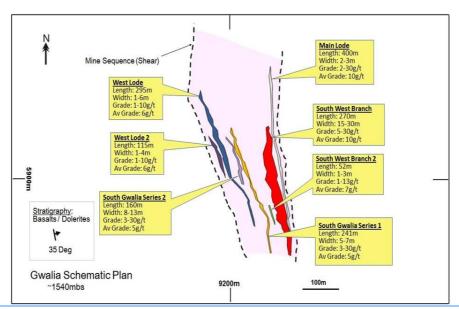


#### Criteria

#### Comments

#### Geology

Gold mineralisation occurs as a number of en echelon, moderately east dipping foliation parallel lodes within strongly
potassic altered mafic rocks and extends over a strike length of approximately 500 m and to a vertical depth of at least
2,300 m. Four primary lodes (Main Lode, South West Branch, South Gwalia Series and West Lode) have been
identified with the geometries summarised below.



# Drill Hole Information

Drill hole collar easting, northing, dip and azimuth summarised below in Gwalia local mine grid.

	0. 0. 1					
Hole_ID	Max_Depth	Local_East	Local_North	Local_RL	Dip	Local_Azimuth
UGD2786	186.08	8374.785	6178.885	4615.483	-64.5	265
UGD2787	189.96	8374.781	6179.249	4615.431	-37	289.2
UGD2790	134.99	8407.025	6122.021	4518.833	-13	279.5
UGD2792	140.04	8406.902	6121.935	4519.161	-8.8	289.41
UGD2797	180.05	8420.05	6130.838	4517.679	-55.5	275
UGD2801	145.06	8409.1	6127.167	4518.122	-48.9	325.8
UGD2829A	312	8142.273	6164.958	4713.479	21.51	314.85
UGD2832	140.7	8189.207	6164.437	4704.09	-44.8	335.2
UGD2833	229.96	8215.973	6163.964	4700.882	-26.32	338.65
UGD2834	108.01	8216.2	6163.988	4700.818	-51.04	347.09
UGD2837	194.94	8262.348	6161.407	4693.507	-62.75	308.54
UGD2842	205	8330.785	6160.106	4684.232	-61.8	307.7
UGD2843	133.15	8329.551	6163.162	4684.455	-58.4	316.9

• The two point grid transformation from Gwalia local mine grid to MGA94 – Zone 51 is:

MGAE1	MGAN1	MGAE 2	MGAN 2	LocalE 1	LocalN 1	LocalE 2	LocalN 2
337371.16	6800342.6	340246.451	6799408.751	7200.281	6987.844	10219.711	6836.814

Grid Rotation: -15.1292

#### Data Aggregation Methods

- Results are reported at a minimum cut-off grade of 0.5g/t Au with maximum internal dilution of 3m.
- Higher grade intervals contained within the intercepts are reported at a 6g/t Au cut-off with no internal dilution



Criteria	Comments	
Relationship Between Mineralisation Widths and Intercept Lengths	<ul> <li>Holes are reasonably angled with respect to mineralisation, but UGD2829A was up plunge resulting in a shaper angle of intersection to the mineralisation that the other holes. Geometry of mineralisation is well understood due to historical drilling and mining in the adjacent areas.</li> </ul>	
Diagrams	Relevant diagrams are included in the report	
Balanced Reporting	All results received to date have been presented.	
Other Substantive Exploration Data	No other material data.	
Further Work	Further drilling up plunge is planned to in-fill in the area between UGD2829A and UGD2832.	

#### LEONORA - JORC Code, 2012 Edition - Table 1

#### **Contents**

Tower Hill Drilling: Section 1 Sampling Techniques and Data

Section 2 Reporting of Exploration Results

Trevor Bore Drilling: Section 1 Sampling Techniques and Data

Section 2 Reporting of Exploration Results

#### Tower Hill Drilling - Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	<ul> <li>Sampling was completed using diamond drill core (DD).</li> <li>Diamond core was transferred to core trays for logging and sampling. Half core samples were nominated by the geologist from HQ or NQ diamond core, with a minimum sample width of 20cm and a maximum width of 120cm.</li> <li>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> <li>Samples were transported to SGS Kalgoorlie for preparation by drying, crushing to &lt;3mm, and pulverizing the entire sample to &lt;75µm.</li> </ul>
Drilling techniques	<ul> <li>Diamond drill holes were commenced using HQ (63.5mm) diameter core.</li> <li>Once ground conditions allowed, holes were reduced to NQ2 (50.6mm) diameter core.</li> <li>Core was orientated using a Boart Longyear Trucore core orientation system.</li> <li>A Sandvik diamond drill rig was utlised by Topdrill to complete the drilling.</li> </ul>
Drill sample recovery	<ul> <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>
Logging	<ul> <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 quantitative where possible and qualitative elsewhere.</li> <li>A photograph is taken of every core tray (wet).</li> </ul>
Sub-sampling techniques and sample preparation	• 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 <3mm followed by complete pulverisation (90% passing 75 μm).
Quality of assay data and laboratory tests	<ul> <li>SBM samples were analysed for gold using fire assay with a 50g charge and analysis by flame Atomic Absorption (FAA505) Spectrometry (AAS).</li> <li>Certified reference material, blanks and duplicate samples were inserted into the sample stream at a ratio of 1:20.</li> <li>SGS Laboratories inserted certified standards, blanks and replicates and lab repeats.</li> </ul>



Criteria	Commentary
Verification of sampling and assaying	<ul> <li>Primary geological and sampling data were recorded into made for purpose excel spreadsheets, peer reviewed and validated by SBM Geologists.</li> <li>Data was then transferred into the St Barbara corporate DataShed database where it was further validated by St Barbara's Geological Database Administrator. No adjustments to assay data were made.</li> </ul>
Location of data points	<ul> <li>Prior to drilling, all holes were marked out using a DGPS with decimetre accuracy.</li> <li>Upon completion of the program, all holes were resurveyed using a DGPS with decimetre accuracy to determine the final collar positions.</li> <li>All locations were captured in MGA94 zone 51 grid.</li> <li>Downhole surveys were taken by the drilling contractor at 10 m intervals utilising a north seeking Axis gyro system.</li> </ul>
Data spacing and distribution	Drilling targeted gaps within the resource model and was not designed on a regular pattern.
Orientation of data in relation to geological structure	<ul> <li>The regional stratigraphy generally strikes N-S and dips approximately 35 degrees to the east.</li> <li>Planned drill hole dips ranged from -50 to -83 degrees at collar.</li> <li>Drill holes are oriented as close as practical to perpendicular to the mineralised trends.</li> <li>No sampling bias is considered to have been introduced by the drilling orientation.</li> </ul>
Sample security	Company personnel or approved contractors only allowed on drill sites; drill samples are only removed from drill site by company employees and transported to the company's secure processing facility. Processed samples are consigned to accredited laboratories for sample preparation and analysis.
Audits or reviews	Logging and sampling data was peer reviewed in-house by SBM Senior Geologists.

#### Tower Hill Drilling - Section 2 Reporting of Exploration Results

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

Criteria	Commentary
Mineral tenement and land tenure status	SBM has 100% ownership of tenement M37/0055 in which the drilling was completed.
Exploration done by other parties	<ul> <li>Numerous shallow workings exist in the project area.</li> <li>Exploration activities including RAB drilling, RC Drilling, soil sampling and geophysics by groups such as Esso, Dominion Mining, City Resources and Sons of Gwalia.</li> <li>Dominion Mining undertook open pit mining of the oxide material at the Tower Hill deposit to a depth of approximately 80m.</li> </ul>
Geology	<ul> <li>The project area is located in the Leonora area of the Norseman-Wiluna Archean greenstone.</li> <li>The project lies between the Mt George Shear Zone to the east, and the Raeside Batholith/greenstone contact to the west.</li> <li>Project area hosts a sequence of basalts, talc-carbonate schists, gabbroic/doleritic sills and interflow sediments. The sequence is intruded by granitoids and E-W oriented dolerite dykes.</li> <li>Mineralisation is hosted with a moderately east dipping quartz vein package adjacent to the contact of granite and strongly foliated ultramafic rocks.</li> </ul>
Drill hole Information	<ul> <li>Drill hole information for holes returning significant results have been reported in the intercept table outlining the collar co-ordinates and includes drilled depth, hole dip and azimuth and composited mineralised intercept lengths and depth.</li> </ul>
Data aggregation methods	<ul> <li>Down hole intercepts are reported as length weighted averages using a cut-off of 0.5 g/t Au.</li> <li>No high grade cut is applied and grades are reported to one decimal figure.</li> </ul>
Relationship between mineralisation widths and intercept lengths	The orientation of mineralisation is well known and true widths can be accurately calculated. As holes were designed to be perpendicular to mineralisation, both the downhole with and true width are almost identical.
Diagrams	Appropriate diagrams are included within the body of the report.
Balanced reporting	Details of all holes material to Exploration Results have been reported in the intercept table.
Other substantive exploration data	Data is included in the body of the report.
Further Work	Further resource definition and exploration drill holes are planned.



#### Trevor Bore Drilling - Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	<ul> <li>Sampling was conducted via Reverse Circulation (RC) drilling.</li> <li>One metre samples were generated by a rig-mounted cyclone splitter. One half of the split sample collected in calico bags and the other, collected by a bucket and placed on the ground in neat rows of thirty.</li> <li>Samples were transported to the secure onsite processing facility for storage in bulka bags.</li> <li>Bulka bags were picked up by an SGS laboratory representative and transported to SGS laboratory in Kalgoorlie for fire assay with a 50 g charge and analysis by Flame Atomic Absorption Spectrometry (FAA505 method).</li> <li>Representative specimens from every metre were sieved, cleaned and stored in plastic chip trays for future reference.</li> </ul>
Drilling techniques	<ul> <li>RC drilling was carried out using a 140 mm hammer bit. Drilling was completed by Top Drill who utilised a track mounted Schramm C685 rig with 1350 cfm/500 psi compressor coupled with an 8x8 carrier mounted auxillary compressor and booster package.</li> </ul>
Drill sample recovery  Logging	<ul> <li>RC sample recovery and condition (wet/dry) were routinely 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> <li>All drill holes were logged in full for lithology, alteration, veining, weathering/regolith and colour.</li> <li>All logging is quantitative where possible and qualitative elsewhere.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>A photograph is taken of every chip tray.</li> <li>Samples received by SGS laboratories in Kalgoorlie were sorted, weighed and dried, followed by complete pulverisation (90% passing -75 µm).</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>Sample charge sizes of 50 g for each one metre sample analysed by fire assay is considered appropriate for the sample medium (mix of oxide and fresh rock).</li> <li>Certified reference material, blanks and duplicate samples were inserted into the sample stream at a ratio of 1:20.</li> <li>SGS Laboratories inserted certified standards, blanks and replicates and lab repeats.</li> </ul>
Verification of sampling and assaying	<ul> <li>Primary geological and sampling data were recorded into made for purpose excel spreadsheets, peer reviewed and validated by SBM Geologists.</li> <li>Data was then transferred into the St Barbara corporate DataShed database where it was further validated by St Barbara's Geological Database Administrator. No adjustments to assay data were made.</li> </ul>
Location of data points	<ul> <li>Prior to drilling, all holes were marked out using a handheld DGPS with decimetre accuracy.</li> <li>Upon completion of the program, all holes were resurveyed using a DGPS with decimetre accuracy to determine the final collar positions.</li> <li>All locations were captured in MGA94 zone 51 grid.</li> <li>Downhole surveys were taken by the drilling contractor at 10 m intervals utilising a north seeking Axis gyro system.</li> </ul>
Data spacing and distribution	<ul> <li>Drilling was nominally designed on a 40 x 30 m pattern.</li> <li>Data spacing and distribution is considered sufficient for establishing geological continuity and grade variability appropriate for classifying a Mineral Resource.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>The regional stratigraphy generally strikes NNW and dips approximately 40 degrees to the NE.</li> <li>Planned drill hole dips were -60 degrees at collar.</li> <li>Drill hole orientation was towards a magnetic azimuth of 198 degrees consistent with historic drilling completed over the target.</li> </ul>
Sample security	<ul> <li>Company personnel or approved contractors only allowed on drill sites; drill samples are only removed from drill site by company employees and transported to the company's secure processing facility. Processed samples are consigned to accredited laboratories for sample preparation and analysis.</li> </ul>
Audits or reviews	Logging and sampling data was peer reviewed in-house by SBM Geologists.

#### **Trevor Bore Drilling - Section 2 Reporting of Exploration Results**

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

Criteria	Commentary
Mineral tenement and land tenure status	SBM has 100% ownership of tenements M37/165 in which the drilling was completed.
Exploration done by other parties	<ul> <li>Numerous shallow workings exist in the project area.</li> <li>Exploration activities including RAB drilling, RC Drilling, soil sampling and geophysics by groups such as Esso, Dominion Mining, City Resources and Sons of Gwalia.</li> </ul>



Criteria	Commentary
Geology	<ul> <li>The project area is located in the Leonora area of the Norseman-Wiluna Archean greenstone.</li> <li>The project lies between the Mt George Shear Zone to the east, and the Raeside Batholith/greenstone contact to the west.</li> <li>Project area hosts a sequence of basalts, talc-carbonate schists, gabbroic/doleritic sills and interflow sediments. The sequence is intruded by granitoids and E-W oriented dolerite dykes.</li> </ul>
Drill hole Information	<ul> <li>Drill hole information for holes returning significant results have been reported in the intercept table outlining the collar co-ordinates and includes drilled depth, hole dip and azimuth and composited mineralised intercept lengths and depth.</li> </ul>
Data aggregation	Down hole intercepts are reported as length weighted averages using a cut-off of 0.5 g/t Au.
methods	No high grade cut is applied and grades are reported to one decimal figure.
Relationship between mineralisation widths and intercept lengths	Down hole length is reported for all holes; true width is not fully understand a this time.
Diagrams	Appropriate diagrams are included within the body of the report.
Balanced reporting	Details of all holes material to Exploration Results have been reported in the intercept table.
Other substantive exploration data	Data is included in the body of the report.
Further Work	Further exploration drill holes are planned.

## LAKE WELLS - JORC Code, 2012 Edition - Table 1

#### Contents

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

Section 2 Reporting of Exploration Results

#### Lake Wells Drilling - Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	<ul> <li>RC Drilling</li> <li>One metre samples were collected from a rig-mounted cyclone by bucket and were then placed directly on the ground in neat rows of between ten and fifty (depending on hole depth).</li> <li>Drill spoil was sampled with a scoop into 4 m composite samples of approximately 2.5 kg.</li> <li>Representative specimens from every metre were sieved, cleaned and stored in plastic chip trays for future reference.</li> <li>Diamond Drilling</li> <li>Diamond core was transferred to core trays for logging and sampling. Half core samples were nominated by the geologist from HQ or NQ diamond core, with a minimum sample width of 20cm and a maximum width of 120cm.</li> <li>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> <li>Samples were transported to Bureau Veritas Perth for preparation by drying, crushing to &lt;4mm, and pulverising the entire sample to &lt;75µm.</li> </ul>
Drilling techniques	<ul> <li>RC Drilling</li> <li>RC drilling was carried out using 140 to 145 mm hammer bits. Drilling was completed by Topdrill who utilised a truck mounted SCHRAMM T685W rig with Sullair 1350/500 on board air.</li> <li>Diamond Drilling</li> <li>Diamond drill holes either utilised RC precollars completed during previous quarter or were collared using mud rotary to base of transported cover (10-40m).</li> <li>From base of transport the holes were advanced to competent rock using HQ (63.5mm) diameter core.</li> <li>Once ground conditions allowed, holes reduced to NQ2 (50.6mm) diameter core.</li> <li>Core was orientated using a Boart Longyear Trucore core orientation system.</li> <li>A Sandvik DE880/840 diamond drill rig was utlised by Topdrill to complete the drilling.</li> </ul>



Criteria	Commentary
Drill sample recovery	<ul> <li>RC Drilling</li> <li>Sample recoveries and condition (wet/dry) were routinely 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> <li>Diamond Drilling</li> <li>Core is metre marked, 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>
Logging	<ul> <li>All SBM holes are logged primarily for lithology, alteration and vein type/intensity which are key to modelling gold grade distributions.</li> <li>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 quantitative where possible and qualitative elsewhere.</li> <li>A photograph is taken of every core tray (wet).</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>RC Drilling</li> <li>RC samples were collected as both dry and wet samples using a sample scoop.</li> <li>Samples were collected at 1 m intervals and composited in 4 m samples using a scoop to sample individual metre samples.</li> <li>Diamond Drilling</li> <li>SBM half core is cut using a core saw before being sent to Bureau Veritas laboratory in Perth where the entire sample is crushed to achieve particle size &lt;4mm followed by complete pulverisation (90% passing 75 µm).</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>SBM samples were analysed for gold and arsenic.</li> <li>Gold was determined via fire assay with a 40g charge with analysis by Inductively Coupled Plasma (ICP) Optical Emission Spectrometry finish.</li> <li>Arsenic was determined using an Aqua Regia digest with analysis by Inductively Coupled Plasma Mass Spectrometry.</li> <li>Certified reference material, blanks and duplicate samples were inserted into the sample stream at a ratio of 1:50.</li> <li>Bureau Veritas Laboratories inserted certified standards, blanks and replicates and lab repeats.</li> </ul>
Verification of sampling and assaying	<ul> <li>Primary geological and sampling data were recorded into made for purpose excel spreadsheets, peer reviewed and validated by SBM Geologists.</li> <li>Data was then transferred into the St Barbara corporate DataShed database where it was further validated by St Barbara's Geological Database Administrator. No adjustments to assay data were made.</li> </ul>
Location of data points	<ul> <li>Prior to drilling, all holes were marked out using a DGPS with decimetre accuracy.</li> <li>Upon completion of the program, all holes were resurveyed using a DGPS with decimetre accuracy to determine the final collar positions.</li> <li>All locations were captured in MGA94 zone 51 grid.</li> <li>Downhole surveys were taken by the drilling contractor at 10 m intervals utilising a north seeking Axis gyro system.</li> </ul>
Data spacing and distribution	Drilling was not planned on any regular spacing, rather it was designed to test beneath geochemical anomalies and along strike and down dip from previous significant results.
Orientation of data in relation to geological structure	Drill holes are oriented as close as practical to perpendicular to the mineralised trends.
Sample security	<ul> <li>Company personnel or approved contractors only allowed on drill sites; drill samples are only removed from drill site by company employees and transported to the company's secure processing facility. Processed samples are consigned to accredited laboratories for sample preparation and analysis.</li> </ul>
Audits or reviews	Logging and sampling data was peer reviewed in-house by SBM Senior Geologists.

## Lake Wells Drilling - Section 2 Reporting of Exploration Results

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

Criteria	Commentary
Mineral tenement and land tenure status	SBM has 70% ownership of tenements E38/2505 and E38/2901 in which the drilling was completed.
Exploration done by other parties	<ul> <li>Exploration has been conducted by numerous companies including but not limited to: Goldphyre Resources Ltd, Anglogold Ashanti Australia Ltd, Australian Potash, Utah Development Corporation, Gold Partners NL, Kilkenny Gold NL, Johnsons Well Mining, Croesus Mining NL, Oroya Mining Limited, Western Mining Corporation Ltd, RGC Exploration Pty Ltd.</li> </ul>
Geology	<ul> <li>SBM was targeting Archean orogenic gold mineralisation near major regional faults. The tenement package covers Archaean greenstones within the highly prospective Yamarna Terrane of the Yilgarn Craton. The Lake Wells JV project covers portions of the prospective Yamarna Shear Zone, which passes through the southeastern portion of the project.</li> </ul>



Criteria	Commentary
Drill hole Information	Drill hole information for holes returning significant results have been reported in the intercept table outlining the collar co-ordinates and includes drilled depth, hole dip and azimuth and composited mineralised intercept lengths and depth.
Data aggregation methods	<ul> <li>Down hole intercepts are reported as length weighted averages using a cut-off of 0.5 g/t Au.</li> <li>No high-grade cut is applied and grades are reported to one decimal figure.</li> </ul>
Relationship between mineralisation widths and intercept lengths	Down hole length was reported for all holes; true width was not known as the orientation of mineralisation was not fully understood.
Diagrams	Appropriate diagrams are included within the body of the report.
Balanced reporting	Details of all holes material to Exploration Results have been reported in the intercept table.
Other substantive exploration data	Data is included in the body of the report.
Further Work	Further exploration drill holes are planned.

#### SIMBERI - JORC Code, 2012 Edition - Table 1

#### **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

#### <u>Drilling - Section 1 Sampling Techniques and Data</u>

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

- N. J.	
Criteria	Commentary
Sampling techniques	<ul> <li>Diamond Drilling - Sampled using HQ3 (61.1mm) 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 collected for sample preparation.</li> <li>Half core 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. Pulp residues are stored in Townsville for six months following assay.</li> <li>Reverse Circulation Drilling (RC) – One or two metre samples were generated by the rigs cyclone splitter system for collection in calico bags. When samples are wet, samples are collected in a 20 litre bucket, the water decanted and the sample transferred to the calico bag. One or two metre calico bag samples are then submitted for assay. Routinely, exploration drill holes are sampled at 1m intervals and resource definition/grade control drilling at 2m intervals.</li> <li>RC 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. Pulp residues are stored in Townsville for six months following assay.</li> </ul>
Drilling techniques	<ul> <li>Diamond drilling comprised HQ3 (61.1mm) core recovered using 1.5m barrel. Drilling was completed by Quest Exploration Drilling (QED). When ground conditions permit, an ACT Digital Core Orientation Instrument was used by the contractor to orientate the core.</li> <li>RC drilling was carried out using both 114mm and 134mm hammer bits. Drilling was completed by Quest Exploration Drilling (QED) who utilised a track mounted KL150 and SCHRAMM 685 rigs. No auxiliary compressor/booster units were utilised during these programs.</li> </ul>
Drill sample recovery	<ul> <li>Diamond drilling recovery percentages were measured by comparing actual metres recovered per drill run versus metres measured on the core blocks. Recoveries averaged &gt;90% with increased core loss present in fault zones and zones of strong weathering/alteration.</li> <li>RC drilling conditions (wet/dry) were routinely recorded. The drill cyclone and sample buckets were cleaned regularly, in particular after wet ground was encountered, nominally after each six metre rod, depending on ground conditions. The cyclones are also cleaned several times during the course of each hole and upon the completion of each hole.</li> </ul>



Criteria	Commentary
Logging	<ul> <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 dry and wet.</li> <li>RC drilling chips were sieved, cleaned, logged, and photographed. Reference material was stored in plastic chip trays for future reference.</li> <li>All holes are logged in their entirety.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>All diamond drill core associated with St Barbara work program was half cut with the upper or left-hand side submitted for assay.</li> <li>All exploration diamond and split RC samples were prepared at the company's on-site sample preparation facility. Preparation involved drying, jaw crush to 70% passing -6mm, pulverise in LM2 to a minimum 85% passing -75um.</li> <li>For exploration samples 200g pulps were sent to ALS Laboratory in Townsville for assay. Pulp residues are stored in Townsville for six months following assay.</li> <li>All resource pulps are assayed at the company's on-site laboratory with pulps stored for all samples in the resource definition category.</li> <li>Quality control of sub-sampling consisted of insertion of (non-certified) blank control samples at a ratio of 1:35 and coarse reject duplicates at a ratio of 1:20.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>All diamond and RC drill hole pulp samples associated with the St Barbara exploration work program were sent to ALS Townsville for analysis. Pulps were analysed for Au via 50g Fire Assay Atomic Absorption Spectroscopy (AAS) finish (Au-AA26 method) and multi-element (Ag, As, Ca, Cu, Mo, Pb, S, Sb, Zn) by Aqua Regia digest followed by Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES) instrument read (ME-ICP41S method).</li> <li>Selected exploration samples are assayed for full low level multi-element analysis(Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn and Zr) via 25g four acid digest and Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) or Inductively Coupled Plasma Mass Spectroscopy (ICP-MS) via (ME-MS61 method).</li> <li>QC included insertion of certified reference material at a ratio of 1 in 20; insertion of in-house blank control material (1 in 35); and the insertion of coarse reject residues (1 in 35). 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.</li> <li>ALS Townsville inserted certified standards, replicates, lab repeats and complete sizing checks (1:40).</li> <li>All resource definition RC pulps were analysed for gold at the company's on site laboratory by Aqua Regia digest followed by Atomic Absorption instrument read.</li> <li>QC included insertion of certified reference material (1:20); insertion of in-house blank control material (1:15); and the insertion of field duplicates (1:20). QAQC results were assessed as each laboratory batch was received and again at resource estimation cycles.</li> </ul>
Verification of sampling and assaying	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.
Location of data points	<ul> <li>The majority of Simberi Island drill collars were surveyed by in-house surveyors using DGPS using Tabar Island Grid (TiG) which is based on WGS84 ellipsoid and is GPS compatible. Those few collars not surveyed by DGPS were surveyed by handheld GPS and draped on detailed digital terrain models. All diamond drill holes were downhole surveyed using a Reflex EZ track single shot camera with the first reading at about 18m and one at 30m and then approximately every 30m increments to the bottom-of-the hole.</li> <li>For RC drilling, surveys are not routinely collected.</li> </ul>
Data spacing and distribution	<ul> <li>Exploration diamond drilling and RC drilling data is not yet sufficient to establish continuity of the lodes and therefore the drill spacing is irregular and broad spaced.</li> <li>Resource definition diamond drilling and RC drilling data is sufficient to establish continuity of the lodes in some areas, with infill holes on a nominal 30m x 30m having been drilled. Elsewhere, the drilling density is nominally at a 60m x 60m spacing and can be insufficient to be able to reliably predict orebody continuity.</li> </ul>
Orientation of data in relation to geological structure	<ul> <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>
Sample security	<ul> <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 samples sent to ALS are stored in locked and guarded storage facilities until receipted at the Laboratory.</li> </ul>
Audits or reviews	No audits or reviews of sampling protocols have been completed.



#### **Drilling - Section 2 Reporting of Exploration Results**

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

Criteria	Commentary
Mineral tenement and land tenure status	SBM has 100% ownership of the three tenements over the Simberi Islands; ML136 on Simberi Island, EL609 which covers the remaining area of Simberi Island, as well as Tatau Island and Big Tabar Island and 4 sub-block EL2462 which covers part of Tatau and Mapua Island.
Exploration done by other parties	<ul> <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>
Geology	<ul> <li>The Simberi gold deposits are low sulphidation, intrusion related adularia-sericite epithermal gold deposits. The dominant host rocks for mineralisation are andesites, volcaniclastics 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.</li> <li>On Tatau and Big Tabar Islands, located immediately south of Simberi, porphyry Cu-Au, epithermal quartz Au-Ag and carbonate-base metal Au mineralisation is present.</li> <li>On Simberi Island, Diamond and RC drilling is being conducted on the Simberi ML136 testing for epithermal sulphide gold potential.</li> </ul>
Drill hole Information	<ul> <li>Drill hole information was 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 mineralised intercepts lengths and depth as well as hole depth.</li> </ul>
Data aggregation methods	<ul> <li>For gold only epithermal mineralisation, broad down hole intercepts are reported as length weighted averages using a cut-off of 0.5 g/t Au.</li> <li>Core loss is assigned the same grade as the sample grade; no high-grade cut is applied and grades are reported to one decimal figure.</li> </ul>
Relationship between mineralisation widths and intercept lengths	Down hole length was reported for all holes; true width was not known as the orientation of the orebody is not fully understood.
Diagrams	Diagrams show all drill holes material and immaterial to Exploration Results.
Balanced reporting	Details of all holes material to Exploration Results will be reported in intercept tables, and all other drill holes drilled during the reporting period are highlighted on diagrams included in the report.
Other substantive exploration data	<ul> <li>Included in the body of the report. Where data is sparse, core holes are routinely measured for bulk density determinations to be used for potential future resource modelling.</li> </ul>
Further work	Included in the body of the report.

#### **Trenching - Section 1 Sampling Techniques and Data**

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

Criteria	Commentary
Sampling techniques	<ul> <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>
Trenching techniques	Mechanised trenches were dug by an excavator or dozer exposing up to 5 meters of trench wall.
Sample recovery	• N/A
Logging / Mapping	All trenches were qualitatively geologically mapped for lithology, structure and alteration.
Sub-sampling techniques and sample preparation	<ul> <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> </ul>
Quality of assay data and laboratory tests	<ul> <li>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>QC included the insertion of two in house blanks at the start of each batch of trench samples, the insertion of certified gold standards (1:100) and crush duplicates collected during sample preparation (1:100).</li> </ul>



Criteria	Commentary
Verification of sampling and assaying	<ul> <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>
Location of data points	<ul> <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> </ul>
Data spacing and distribution	Trench data spacing is irregular and broad spaced.
Orientation of data in relation to geological structure	<ul> <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>
Sample security	<ul> <li>Only trained company personnel were allowed to collect the samples. All samples were held within a secure company building before dispatch. The samples were prepared on site at the sample preparation facility.</li> </ul>
Audits or reviews	No audits or reviews of sampling protocols have been completed.

#### **Trenching - Section 2 Reporting of Exploration Results**

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

Criteria	Commentary
Mineral tenement and land tenure status	<ul> <li>SBM has 100% ownership of the three tenements over the Simberi Islands; ML136 on Simberi Island, EL609 which covers the remaining area of Simberi Island, as well as Tatau Island and Big Tabar Island and 4 sub-block EL2462 which covers part of Tatau and Mapua Island.</li> </ul>
Exploration done by other parties	<ul> <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>
Geology	<ul> <li>The Simberi gold deposits are low sulphidation, intrusion related adularia-sericite epithermal gold deposits. The dominant host rocks for mineralisation are andesites, volcaniclastics 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.</li> <li>On Tatau and Big Tabar Islands, located immediately south of Simberi, porphyry Cu-Au, epithermal quartz Au-Ag and carbonate-base metal Au mineralisation is present. The current surface sampling is targeting porphyry Cu-Au mineralisation.</li> </ul>
Trench Information	Included in the report text and annotated on diagrams.
Data aggregation methods	<ul> <li>Broad trench intercepts are reported as length weighted averages using a cut-off of 0.5 g/t Au and a minimum grade*length of 2.5gmpt. 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 ≥0.5g/t and ≥5m trench length is intercepted. No high grade cut is applied.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>Trench intercepts are sampled along the length of the trench and are reported for all trenches; true width is not reported.</li> </ul>
Diagrams	Figures show all sample sites material and immaterial to Exploration Results.
Balanced reporting	<ul> <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>
Other substantive exploration data	Included in the body of the report.
Further work	Included in the body of the report.