# Quarterly Report Q3 March FY24



#### 3 months to 31 March 2024 (unaudited)

St Barbara ("SBM" or the "Company") (ASX:SBM) provides the following Q3 March FY24 quarterly report.

### **Highlights**

#### **Project Development**

- Simberi Resource definition drill program nearing completion with 21 of 24 holes drilled as at 31 March 2024
  - All fifteen Sorowar Pigiput Trend Resource definition drill holes completed and to be included in the new Mineral Resource and Ore Reserve update at the end of Q4
- Resource definition drilling results at Simberi have defined a new zone of broad mineralisation along the northwest trend between the Sorowar and Pigiput ore bodies (refer announcement on 10 April 2024 titled "New Sorowar – Pigiput Mineralised Zone Confirmed")
- Preliminary comminution test results show the Sorowar sulphide ore competency as "very soft" (Axb average 68) consistent with Pigiput results (Axb = 79):
  - If confirmed with full testwork results this shows the previous grinding circuit was overdesigned; and
  - A single sizer may replace two separate crushing circuits and ROM pads from past designs
- Simberi Expansion Concept Study results on track for release in May 2024
- Environmental and social impact assessment studies and field work for 15-Mile Project on track for September

#### **Financial Strength**

- Cash of A\$218 million at 31 March 2024
- Listed investments increased in value to A\$27 million up from A\$22 million at end of Q2
  - Unlisted Linden holding subject to Brightstar Resources merger proposal not yet booked in balance sheet
- Gold sales for quarter of 18,016 ounces (up 20% on Q3) at average realised price of A\$3,178 per ounce

#### **Operating Performance**

- Simberi gold production of 17,257 ounces up 33% from Q2
- Simberi AISC of \$3,074 per ounce down 22% from Q2
- Although mill throughput is not yet hitting targeted levels, the Sorowar grade overperformance continued
- Simberi production guidance for FY24 unchanged but AISC guidance range increased

#### **Exploration**

- Drilling programs completed at Cochrane Hill and Goldboro East in Nova Scotia
  - All three drill holes at Cochrane Hill Deeps intersected visible gold, extending known mineralisation 80 to 175 metres down dip and samples have been sent for screen fire assay (assays pending)
  - Goldboro East property adjacent to Signal Gold Inc to be monetised after only modest intercepts
- An Aircore and Diamond drill program was completed at Back Creek in New South Wales (assays pending)

Managing Director and CEO Andrew Strelein said "It has been another highly productive quarter for the team as we continue to deliver on our stated strategic focus areas in progression of the overseas development projects.

"The outlook for Simberi continues to improve and we remain on track to deliver the results of the Expansion Concept Study in May and the resource definition drilling results bode well for an updated Mineral Resource and Ore Reserve update at the end of Q4.

"On the operating front, production at Simberi was up 33% and AISC down to \$3,074 for the quarter. We anticipate mining of another higher-grade zone of Sorowar in June and provided that we achieve our planned mine face positions we anticipate production above 20,000 ounces for Q4.

"We continue to view St Barbara as a unique value proposition given our market value versus gold in the ground, strong balance sheet and development opportunities."

### **Development Projects**

St Barbara has key development projects located on Simberi Island, Papua New Guinea and in Nova Scotia, Canada.

### Simberi

The unfolding new Simberi Expansion Life of Mine (LOM) Plan includes mining of multiple open pits during the life of the operation to exploit both the oxide and sulphide resources.

Capital expenditure for the growth strategy at Simberi is now trending towards the upper half of the FY24 guidance range of A\$10 to A\$13 million after the Company committed to purchasing two larger capacity Volvo articulated trucks for performance trialling for the Simberi Expansion phase of mining.

Progress to date on the work streams for the Simberi Expansion is on track and summarised in Table 1.

### Table 1. FY24 Simberi Expansion Project Schedule

Simberi Expansion	Status	Q1 Sep FY24	Q2 Dec FY24	Q3 Mar FY24	Q4 Jun FY24
Metallurgical drilling	Complete		√		
Mine fleet selection trade off study	Complete		√		
Pit wall geotechical study update	Complete		√		
Alternative flowsheet concept study	Complete			√	
Commence metallurgical testwork on alternative flowsheet	Complete			√	
Resource definition drilling	94%				
Updated Mineral Resources and Ore Reserves	In progress				

### Simberi Expansion Concept Study

Work continued during the quarter to progress the Simberi Expansion Concept Study. As previously indicated the Concept Study is designed to evaluate:

- the merits of the concentrate Ultra Fine Grind (UFG) / cyanide leach flowsheet option (to produce gold doré) compared to the current flowsheet option (producing a saleable gold concentrate); and
- the two flowsheet options at three alternative throughput rates (see Table 2).

The results of the Concept Study are on schedule for release in May 2024.

### Table 2. Alternate Flowsheet Concept Study Cases

Throughput Rate	Saleable Gold Concentrate Flowsheet	UFG / Cyanide Leach Flowsheet
3.7 Mtpa (Larger New Ball Mill)	$\checkmark$	$\checkmark$
3.0 Mtpa (New Ball Mill)	$\checkmark$	$\checkmark$
2.0 Mtpa (Existing SAG and Ball Mill)	$\checkmark$	$\checkmark$

### Metallurgical Testwork

As previously announced<sup>1</sup> the first batch of Simberi samples for metallurgical testwork arrived in Canada on 9 February 2024. The second and final batch of samples from the final four metallurgical holes and from two of the resource definition holes arrived on 8 March 2024.

Samples for the comminution testing were prepared in late March and testwork commenced in the week of 1 April 2024. Preliminary tests have shown Sorowar sulphide ore competency to be "very soft" (Axb average 68), consistent with Pigiput results (Axb = 79). This testwork adds weight to the current view that Sorowar had been wrongly characterised previously due to poor representativity of the core tested at the time (a function of limited availability of diamond core prior to this extensive FY24 metallurgical drilling program).

This may suggest that the grinding circuits specified in previous studies were over-designed and pit sequencing unnecessarily constrained. The previous designs contemplated two separate Run of Mine (ROM) ore pads with two separate crushing circuits for different ore types as well as upgrading of the SAG mill and a new Ball mill. If these preliminary results are confirmed the Company expects that a single sizer with a single ROM pad and new Ball mill only will be required.

The remainder of the comminution testwork is expected to be completed at the end of Q4, with the aim of confirming the ore hardness properties, which will inform the final selection of crushing and grinding circuit equipment for the chosen flowsheet and operating scale.

The full metallurgical testwork program is expected to run through to mid-January 2025, with flotation testwork and flowsheet optimisation testwork results expected in H1 FY25.

The main areas to be addressed in the metallurgical testwork program comprise:

- Confirmation of the viability of the concentrate UFG / cyanide leach flowsheet including recovery assumptions;
- Confirmation of the flotation mass pull to concentrate to be expected (current study assumptions include a very high mass pull and therefore there is significant upside potential in operating and capital costs if mass pull is found to be more in line with industry benchmarks); and
- Confirmation of ore hardness and ore competency with better sample selection compared to previous studies.

#### **Resource Definition Drilling**

The current resource definition drilling program which has been focused on infill and extensions of the sulphide resource at Pigiput, Sorowar and Pigibo is nearing completion. A total of 21 of 24 drill holes have been completed including all fifteen Sorowar – Pigiput Trend holes and six Pigibo holes. Assay results for all fifteen resource definition drill holes at the Sorowar – Pigiput Trend were received during the quarter.

As previously announced<sup>2</sup> the results of the Sorowar – Pigiput Trend holes together with an additional four prioritised exploration drill holes have further defined a new zone of broad mineralisation (Figure 2) along the northwest trend between the existing Sorowar and Pigiput ore bodies and over a 400 metre long strike extent and up to 100 metres down dip from the current Inferred Resource area. Assay results for the four exploration holes are expected to be received in May 2024.

The assay results for the fifteen Sorowar – Pigiput resource definition diamond holes will be included in the new Mineral Resource and Ore Reserve update at the end of Q4 June FY24.

Selected significant assays previously reported include:

- SDH524: 43 m @ 1.8 g/t Au from 95 m, including 23 m @ 2.6 g/t Au from 98 m, including 4 m @ 9.4 g/t Au from 103 m;
- SDH525: 24 m @ 1.3 g/t Au from 105 m, 22 m @ 1.6 g/t Au from 147 m, 21 m @ 4.0 g/t Au from 176 m, including 1m @ 59.4 g/t Au from 187 m;
- SDH530: 50 m @ 1.7 g/t Au from 76 m, including 29 m @ 2.4 g/t Au from 77 m;
- SDH531: 56 m @ 2.9 g/t Au from 103 m, including 28 m @ 4.7 g/t Au from 103 m;
- SDH533: 45 m @ 2.2 g/t Au from 0 m, including 10 m @ 5.1 g/t Au from 26 m;
- SDH534: 14 m @ 2.2 g/t Au from 122 m including 6 m @ 4.0 g/t Au from 128 m, 16 m @ 2.0 g/t Au from 184 m, including 5 m @ 5.0 g/t Au from 188 m; and
- SDH537: 24 m @ 2.1 g/t Au from 90 m, including 3 m @ 12.2 g/t Au from 102 m.

Three Pigibo resource definition drill holes and four Pigibo exploration drill holes remain to be drilled. Drilling of the three remaining Pigibo resource definition drill holes should be completed in May 2024 and assay results returned by end of June 2024. The four Pigibo exploration drill holes should be completed by mid-July 2024 and assay results returned in September 2024.



### Figure 1. FY24 Completed and Planned Diamond Drilling, Simberi Island, Papua New Guinea





### Atlantic

Significant progress was made in Q3 on the completion of work required for the revised environmental approval submissions and pre-engagement for the 15-Mile Project, with community consultations commencing. The Company continues to target Q1 FY25 for completion of the environmental and social impact assessment work.

Capital expenditure for the growth strategy at Nova Scotia is trending towards the lower end of the FY24 guidance range of A\$13 to A\$15 million.

### Table 3. FY24 Nova Scotia Project Schedule

Nova Scotia Projects	Status	Q1 Sep FY24	Q2 Dec FY24	Q3 Mar FY24	Q4 Jun FY24
Touquoy plant relocation study	Complete	$\checkmark$			
Withdrawal of previous permit submissions	Complete	$\checkmark$			
15-Mile Pre-feasibility Study	Complete	$\checkmark$			
Beaver Dam Mineral Resource and Ore Reserve update	Complete			$\checkmark$	
Update environmental and social impact assessment studies	On track				
Cochrane Hill project drilling	Complete			$\checkmark$	

### Safety and sustainability

At Simberi there were two reportable injuries for the quarter and one at Touquoy during environmental monitoring activities.

The 12-month moving average Total Recordable Injury Frequency Rate rose from 2.8 for Q2 to 3.4 at the end of Q3. This is in part due to the higher reportable injuries at Touquoy in Q1 becoming more significant against the lower worker exposure hours, but also because of an up-tick in recordable injuries at Simberi.

# **Operations**

### Simberi Operations, New Ireland Province, Papua New Guinea

Production Summary		Q3 Mar FY23	Q4 Jun FY23	Q1 Sep FY24	Q2 Dec FY24	Q3 Mar FY24	YTD FY24
Ore Mined	kt	513	479	592	632	665	1,889
Waste mined	kt	1,589	1,858	1,697	1,467	1,062	4,227
Mined grade	g/t	1.13	1.10	0.88	1.12	1.29	1.10
Ore milled	kt	566	500	464	451	428	1,343
Milled grade	g/t	1.10	1.81	0.96	1.18	1.63	1.25
Recovery	%	81	86	73	75	77	75
Gold production	oz	16,254	25,189	10,379	12,969	17,257	40,605
Gold sold	oz	19,994	17,895	15,579	13,644	18,016	47,239
Realised gold price	\$/oz	2,774	2,941	2,920	3,020	3,178	3,047
All-In Sustaining Cost (AISC)	\$/oz produced	2,472	2,208	4,548	3,889	3,074	3,713

Simberi gold production for Q3 was 17,257 ounces, an increase of 33% on Q2.

All-in Sustaining Cost (AISC) in Q3 was \$3,074 per ounce, a decrease of 22% on Q2, driven by the higher gold production.

The mill and rope conveyor availability are yet to reach their targeted levels, however as anticipated mined grade improved during the quarter as the mine schedule accessed a higher proportion of ore tonnes from the higher-grade zones in Sorowar pit that reconciled positively. The positive grade reconciliation is consistent with the upside experienced previously when mining similar higher-grade zones in Sorowar.

Ore mining volumes were solid for the quarter however waste volumes fell from previous quarters as excavator availability was down due to fuel contamination related breakdowns and also due to longer ore haulage for the truck fleet during rope conveyor downtime during the quarter.

Ore milled was first impacted by the unplanned SAG mill stoppage that started in late December and which continued for several days into January. Mistakes made with restarts of the overland conveyor caused additional downtime and changes have been made in restart protocols to minimise the risk of similar events.

The Company continues to anticipate achieving FY24 production guidance given the solid Q3 result and anticipated access to another higher than average grade ore zone in Sorowar during June. This Sorowar ore zone represents both a vulnerability to the schedule but also an upside because the scheduled grade has strong potential to overperform.

AISC for Q4 is anticipated to be below A\$3,000 per ounce with the higher production anticipated for the quarter. Sustaining Capital is anticipated to be higher than previous quarters but this is expected to be offset by stockpile build. The improved AISC in this Q3 and for the upcoming Q4 will however not be enough to bring projected FY24 AISC back within the A\$3,050 upper end of guidance. The stockpile build for H2 will not reach previously expected values. Accordingly full year AISC guidance has been adjusted to A\$3,200 to A\$3,400.

As we catch up on maintenance and refurbishment of fixed plant and bring the mine fleet up to targeted production we anticipate sustainable production from Simberi similar to what we are expecting from this second half of FY24, albeit with variability between quarters depending on ore sources available. The Company anticipates making an announcement on the future years outlook for current operations in May.

The preliminary results of the metallurgical testwork suggests that a single sizer is appropriate for the future Sulphide Expansion flowsheet. With that insight, the Company will look to acquire and install the appropriate sizer to replace the current Feeder – Breaker to reduce oversize material to the overland conveyor and to the grinding circuit to further improve the reliability of these circuits in FY25.

### Atlantic Operations, Nova Scotia, Canada

Closure activities continued to progress well with the care and maintenance of the processing plant and the transition to reclamation. Small amounts of additional gold recoveries are anticipated in coming months with off-site treatment of carbon fines and on-site gravity table recoveries during decommissioning of areas of the facility.

Closure and care and maintenance costs are trending towards the lower end of the FY24 guidance range of A\$14 to A\$16 million and potentially below the bottom end of the range.

### Guidance for FY24

Annual gold production from Simberi trending towards the bottom end of guidance. Guidance on Simberi AISC is revised to A\$3,200 to A\$3,400 with the anticipated further improvement in Q4 not being enough to bring the annual result back within the original guidance range of A\$2,750 to A\$3,050. Sustaining Capital range has been lowered to A\$13 to A\$15 million owing to timing changes.

Operation	Gold production	AISC	Sustaining capital
	(koz)	(A\$/oz)	(A\$M)
Atlantic Operations	6	$3,100 - 3,200^3$	0
Simberi Operations	60 – 70	$3,200 - 3,400^4$	13 – 15

3 C\$2,760 to C\$2,850 per ounce at AUD/CAD of 0.89.

4 US\$2,115 to US\$2,250 per ounce at AUD/USD of 0.66.

# **Exploration activities**

### **Papua New Guinea**

### Simberi, Tatau & Tabar Islands

As discussed above the Simberi exploration team were focused on the resource definition drilling program targeting the conversion of 1 Moz of Inferred Mineral Resource to Indicated Mineral Resource. The announcement on 23 January 2024<sup>5</sup> and 10 April 2024<sup>6</sup> outlines the drill results available to date supporting the work.

Exploration on EL609 and EL2462 on Tatau Island commenced. The Tomababat Camp on Tatau Island was established, and additional exploration personnel recruited to conduct the planned work programs. A total of 31 hand auger soil samples were collected from EL2462 on a 200 m by 200 m spaced grid as well as eight rock chip samples.

### Canada

### **Goldboro East**

At Goldboro East a 4-hole 902 metre diamond drill program was completed in December 2023. Drilling was conducted on two north-south orientated sections spaced 90 m apart. The work was designed to test the shallow and depth potential for extensions to Signal Gold's Goldboro deposit (~3.0 Moz Au Open Pit and Underground NI 43-101 Resource) on St Barbara's tenement located immediately to the east.

Drilling successfully intersected and tested the hinge and both limbs of the anticline. Limited significant assays were returned including GBE-23-001: 2 m @ 1.9 g/t Au from 279 m and GBE-23-002: 1 m @ 3.9 g/t Au from 14 m. Visible gold was observed at 81.75 m depth in GBE-23-003 and 97.60 m depth in GBE-23-004. Gold mineralisation is primarily associated with bedding parallel quartz veins and lesser wall rock hosted, within the limbs and hinge of the anticline.

The Company will now seek to monetise these tenements due to their necessity for waste rock storage and road infrastructure associated with the permitted design of Signal Gold's Goldboro deposit.

### **Cochrane Hill**

A diamond drill program comprising 17 diamond holes for 2,431 metres was completed at Cochrane Hill East and West in Q3 FY24. Drilling was designed to test the exploration potential along strike to the ENE and WSW over prospective targets and complete sterilisation drilling for potential future development infrastructure. Assay results are pending. Significant intercepts at Cochrane Hill West that are being followed-up in this proposed campaign include: CHC-07-019: 8 m @ 12.24 g/t Au from 4 m; CHC-07-020: 4 m @ 10.5 g/t Au from 17 m; and CHC-07-018: 4 m @ 6.57 g/t Au from 11 m.

A three hole, 1,422 metre diamond drill program was also completed at Cochrane Hill Deeps. The program tested for potential high-grade, down-dip extensions to the Cochrane Hill gold deposit over a 130 m strike length between 80 m and 175 m below previous drilling conducted in 2018 and 2019. The announcement on 27 February 2024<sup>7</sup> described the successful completion of the first diamond drill hole CH-24-358 and the observation of multiple occurrences of visible gold. Due to the observed presence of visible gold, samples from all three holes are being analysed initially for gold via 50g Fire Assay / AAS finish (Au-AA26 method) at ALS, Vancouver and then selectively via screen fire assays (Au-SCR24 method) on coarse residue material. Assay results are expected in May 2024.

### Australia

### **Back Creek, New South Wales**

A 28-hole (BKAC0080 to BKAC0107) Aircore drill program of 2,862 m was completed during the quarter that tested a further 1.1 kilometre strike length of the Southwest Target for orogenic gold style mineralisation. Assay results were received from the aircore composite samples. Best results include BKAC0103: 4 m @ 3.66 g/t Au from 62 m, BKAC0097: 4 m @ 1.2 g/t Au from 56 m and BKAC0088: 4 m @ 1.0 g/t Au from 56 m.

<sup>5</sup> Refer to ASX announcement dated 23 January 2024 titled "Simberi Resource Definition Drilling Update".

<sup>6</sup> Refer to ASX announcement dated 10 April 2024 titled "New Sorowar - Pigiput Mineralised Zone Confirmed"

<sup>7</sup> Refer to ASX announcement dated 27 February 2024 titled "Significant Visible Gold Intersected, First of Three-Hole Cochrane Hill Deeps Program Delivers".

The aircore drilling results has highlighted a 2.1 kilometre long >0.1 g/t Au in bedrock anomaly that is open along strike to the north and south. Composite intervals returning >0.05 g/t Au have been resubmitted at 1 m intervals for analysis with results expected in May 2024.

A two-hole (BKDD0006 and BKDD0007) diamond drill program for 799.2 m was completed during the quarter testing two magnetic highs at the Northeast Target for both porphyry Cu-Au and epithermal Au style mineralisation. BKDD0006 intersected broad zones of 5-10% disseminated and vein pyrite in strongly altered volcaniclastics in the top half of the hole. Assay results will be returned in the June quarter.

### Pinjin Project, Western Australia

Plowden Resources Pty Ltd completed two reverse circulation (RC) drill holes for 708 m at the Pinjin South Earn-In and Joint Venture during the March quarter. Plowden have completed the required drilling commitments and A\$1.6 million expenditure by the 23 March 2024 over a two year and three month period in order to achieve a Stage 1 Earn-In of a 15% Participating Interest in the Project.







### Figure 4. Q3 FY24 Completed Diamond Drilling at Cochrane Hill, Nova Scotia, Canada



### Figure 5. Q3 FY24 Completed Aircore Drilling at Southwest Target, Back Creek, NSW

### Group Exploration expenditure (unaudited)

Exploration expenditure for FY24 is trending toward the bottom end of guidance of A\$5 to A\$6 million.

Group Exploration	Actual Year FY23 A\$M	Actual Q1 Sep FY24 A\$M	Actual Q2 Dec FY24 A\$M	Actual Q3 Mar FY24 A\$M	Guidance FY24 A\$M
Australia	9	0.3	0.1	1.1	1
Tabar Island Group, Papua New Guinea	4	-	-	0.1	1
Nova Scotia Regional	-	0.1	0.2	0.5	4 – 5
Consolidated	13	0.4	0.3	1.7	5 – 6

	North	East	RL	Dip/ Azimuth	Total Depth		Dov Mineralise	vn-hole d Intersectio	on
Hole Id						From	То	Interval	Gold
	m	m	m	degrees	m				grade
						m	m	m	g/t Au
GBE-23-001	608,077	5,006,338	75.9	-60 / 180	308	37	38	1	1.20
						48	50	2	0.68
						62	63	1	1.74
						135	136	1	0.52
						156	157	1	0.46
						186	187	1	1.89
						197	198	1	1.95
						234	235	1	1.34
						279	281	2	1.88*
GBE-23-002	608,070	5,006,245	71.6	-65 / 185	206	14	15	1	3.91*
						29	30	1	0.41
						63	64	1	0.53
GBE-23-003	608,060	5,006,100	72.4	-60 / 005	200	10	11	1	0.33
GBE-23-004	608,146	5,006,209	77.0	-78 / 185	188		No Signif	icant Results	

### Table 4: Goldboro East Diamond Drilling Significant And Anomalous Intercepts – Nova Scotia

### NOTES:

Anomalous Intercept (> 0.3 g/t Au), with up to 3m internal dilution.

\*Significant Intercept (> 0.5 g/t Au) with [sample lengths (m) \* Au Assay (g/t Au)  $\ge$  3.0g/t Au\*m] with up to 3m internal dilution.

	North	East	RL	Dip/ Azimuth	Total Depth	Down-hole Mineralised Intersection			
Hole Id	m	m	m	degrees	m	From	То	Interval	Gold grade
						m	m	m	ppb Au
2024BKAC0080	6,243,898.8	533,901.9	230.0	-70 / 090	125.0	96.0	100.0	4.0	589
2024BKAC0081	6,243,899.3	533,797.8	230.0	-70 / 090	128.0	127.0	128.0	1.0	105
2024BKAC0082	6,243,895.6	533,701.3	230.0	-70 / 090	127.0	76.0	80.0	4.0	131
2024BKAC0083	6,243,898.0	533,603.9	230.0	-70 / 090	71.0	70.0	71.0	1.0	101
2024BKAC0084	6,243,900.3	533,501.8	230.0	-70 / 090	96.0	59.0	63.0	4.0	126
2024BKAC0085	6,243,899.2	533,401.6	230.0	-70 / 090	117.0		No Signifi	cant Results	
2024BKAC0086	6,243,497.9	534,697.5	230.0	-70 / 090	46.0	23.0	39.0	16.0	170
Including						23.0	27.0	4.0	571
2024BKAC0087	6,243,498.4	534,597.4	230.0	-70 / 090	63.0		No Signifi	cant Results	
2024BKAC0088	6,243,498.9	534,498.6	230.0	-70 / 090	92.0	56.0	60.0	4.0	1010
2024BKAC0089	6,243,499.4	534,396.2	230.0	-70 / 090	93.0	No Significant Results			
2024BKAC0090	6,243,499.6	534,298.9	230.0	-70 / 090	109.0	No Significant Results			
2024BKAC0091	6,243,496.7	534,120.8	230.0	-70 / 090	113.0	No Significant Results			
2024BKAC0092	6,243,496.6	534,050.2	230.0	-70 / 090	101.0	No Significant Results			
2024BKAC0093	6,243,595.5	533,724.2	230.0	-70 / 090	81.0		No Signifi	cant Results	
2024BKAC0094	6,243,597.2	533,526.1	230.0	-70 / 090	105.0		No Signifi	cant Results	
2024BKAC0095	6,241,799.4	534,050.8	230.0	-70 / 090	124.0	63.0	67.0	4.0	105
2024BKAC0096	6,241,799.1	533,948.6	230.0	-70 / 090	107.0	49.0	53.0	4.0	106
						65.0	77.0	12.0	270
2024BKAC0097	6,241,800.1	533,846.6	230.0	-70 / 090	103.0	56.0	60.0	4.0	1220
2024BKAC0098	6,241,799.9	533,746.9	230.0	-70 / 090	96.0	72.0	80.0	8.0	204
2024BKAC0099	6,241,795.9	533,649.1	230.0	-70 / 090	114.0	113.0	114.0	1.0	168
2024BKAC0100	6,241,802.8	533,548.6	230.0	-70 / 090	87.0		No Signifi	cant Results	
2024BKAC0101	6,242,199.2	534,000.6	230.0	-90 / 000	110.5		No Signifi	cant Results	
2024BKAC0102	6,242,197.6	533,946.8	230.0	-90 / 000	108.0		No Signifi	cant Results	
2024BKAC0103	6,242,199.7	533,855.2	230.0	-90 / 000	111.0	46.0	54.0	8.0	148
						62.0	66.0	4.0	3660
						106.0	110.0	4.0	279
2024BKAC0104	6,242,200.0	533,752.1	230.0	-90 / 000	143.0	71.0	79.0	8.0	551
2024BKAC0105	6,242,200.2	533,652.3	230.0	-90 / 000	117.0		No Signifi	cant Results	
2024BKAC0106	6,242,198.9	533,546.7	230.0	-90 / 000	97.5	76.0	84.0	8.0	254
2024BKAC0107	6,241,796.9	533,758.7	230.0	-90 / 000	77.0		No Signifi	cant Results	

### Table 5: Back Creek Aircore Significant Intercepts – West Wyalong, New South Wales

# **Finance (unaudited)**

St Barbara sold 18,016 ounces of gold in the March quarter at an average realised gold price of A\$3,178 per ounce.

Total cash at bank at 31 March 2024 was A\$218 million (including restricted cash of A\$47 million for the Touquoy reclamation bond). Operating cashflow at Simberi was A\$4 million and the Canadian subsidiary received a A\$12 million tax refund.

Cash movements & balan	ce A\$M	Q3 Mar	Q4 Jun	Year	Q1 Sep	Q2 Dec	Q3 Mar
(unaudited)		FY23	FY23	FY23	FY24	FY24	FY24
Growth Projects							
Atlantic		(3)	(3)	(11)	(2)	(3)	(2)
Simberi		-	-	(2)	(1)	(2)	(3)
Atlantic Care & Maintenanc	e	-	-	-	-	(4)	(4)
Atlantic Rehabilitation		-	-	-	-	(2)	(1)
Exploration		(3)	(3)	(16)	-	-	-
Simberi Operation		13	3	19	-	(10)	4
Atlantic Operation		13	16	28	6	-	-
Corporate Costs		(5)	(6)	(25)	(5)	(4)	(3)
Project costs		(4)	(5)	(14)	-	-	-
Corporate Royalties		(2)	(2)	(7)	(2)	-	-
Income Tax payments		3	(12)	(16)	2	-	12
Working Capital movement		(8)	11	(15)	(4)	-	-
Cashflows before financi	ng costs	4	(1)	(59)	(6)	(25)	3
Net Interest income/(expen	se)	(2)	(1)	(6)	-	2	2
Lease facility		(3)	(7)	(11)	(1)	(2)	(1)
Other Financing and Assets	sales	20	(159)	(140)	-	3	-
Dividends Paid		-	-	-	-	-	-
Discontinued Operations - I	eonora						
Operating Cashflow		4	32	48	(24)	-	-
Working Capital finalisa	ation	-	-	-	(32)	-	-
Growth Capital		(1)	(1)	(8)	-	-	-
Proceeds from Leonora Ass	set Sale	-	371	371	5	-	-
Net Movement for Period		22	234	195	(58)	(22)	4
Cash Balance at start of c	juarter	38	60	99	294	236	214
Total Cash at end of quar	ter	60	294	294	236	214	218
Cash available for use		60	247	247	189	167	171
Restricted cash		-	47	47	47	47	47
Group Sustaining	Actual	Actual	A	ctual	Actual	Actua	l Gui <u>danc</u>

Group Sustaining	Actual	Actual	Actual	Actual	Actual	Guidance
Capex	Q3 Mar FY23	Q4 Jun FY23	Q1 Sep FY24	Q2 Dec FY24	Q3 Mar FY24	FY24
	A\$M	A\$M	A\$M	A\$M	A\$M	A\$M
Atlantic	0	-	-	-	-	0
Simberi	1	3	1	4	3	13 – 15

Group Growth Capex	Actual Q3 Mar FY23	Actual Q4 Jun FY23	Actual Q1 Sep FY24	Actual Q2 Dec FY24	Actual Q3 Mar FY24	Guidance FY24
	A\$M	A\$M	A\$M	A\$M	A\$M	A\$M
Atlantic	3	3	2	3	2	13 – 15
Simberi	-	-	1	2	3	10 – 13

# Corporate

### **Equity Investments**

The listed investment portfolio increased in value to A\$27 million at end of Q3 (up from A\$22 million at end of Q2) with increases in the share prices of each of the listed companies in the portfolio.

During the quarter Brightstar Resources Limited (ASX:BTR) (Brightstar) announced a recommended off-market scrip takeover offer for unlisted Linden Gold Alliance Limited in which St Barbara has a significant equity position. St Barbara is supportive of the proposed transaction and has agreed to make an A\$2 million investment in the second tranche of Brightstar's capital raise.

At the date of this report, St Barbara holds the following listed investments, with the valuation shown for the Linden Gold Alliance unlisted equity interest subject to successful completion of the Brightstar's Offer and Placement:

Company	Shares (M)	Ownership (%)	Value (A\$M) <sup>8</sup>
Catalyst Metals (ASX: CYL)	12.7	5.7	10.9
Kin Mining (ASX: KIN)	158.1	13.4	10.6
Peel Mining (ASX: PEX)	41.5	7.2	5.4
Subtotal			27.0
Linden Gold Alliance (unlisted) being acquired by Brightstar (ASX: BTR)			10.4
Total	-	-	37.4

### Authorised by

Andrew Strelein

Managing Director & CEO 24 April 2024

<sup>8</sup> Based on ASX closing share prices on 23 April 2024; Brightstar value based on closing share price on 23 April 2024 and the pro forma shares on issue post offer and placement.

### For more information

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Paul Ryan / Michael Weir *Morrow Sodali* M: +61 409 296 511 / +61 402 347 032

### Share capital

817,970,380
Nil
817,970,380

Unlisted employee rights	ASX:SBMAK
Opening balance 31 December 2023	53,867,497
Issued	Nil
Exercised as shares	Nil
Lapsed <sup>9</sup>	(165,590)
Closing balance 31 March 2024	53,701,907
Comprises rights expiring:	
30 June 2024	2,599,990
30 June 2025	4,050,893
30 June 2026	47,051,024
Unlisted rights issued under the NED Equity Plan	Nil
Closing balance 31 March 2024	53,701,907

# **Corporate directory**

St Barbara Limited ABN 36 009 165 066

### **Board of Directors**

Kerry Gleeson, *Non-Executive Chair* Andrew Strelein, *Managing Director & CEO* Stef Loader, *Non-Executive Director* Joanne Palmer, *Non-Executive Director* Mark Hine, *Non-Executive Director* Warren Hallam, *Non-Executive Director* 

### **Company Secretary**

Kylie Panckhurst, *General Counsel & Company* Secretary

### **Executives**

Andrew Strelein, *Managing Director* & CEO Sara Prendergast, *Chief Financial Officer* Randy McMahon, *EGM Simberi* Brett Ascott, *EGM Projects* & *Technical Support* Roger Mustard, *EGM Exploration* 

### **Registered Office**

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stbarbara.com.au

Australian Securities Exchange (ASX) Listing code "SBM"

Financial figures are in Australian dollars (unless otherwise noted)

Financial year commences 1 July and ends 30 June

Q1 Sep FY24 = quarter to 30 Sep 2023

Q2 Dec FY24 = quarter to 31 Dec 2023

Q3 Mar FY24 = quarter to 31 Mar 2024

Q4 Jun FY24 = quarter to 30 Jun 2024

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# **Investor Relations**

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# **Substantial Shareholders**

% of Holdings <sup>10</sup>	
Baker Steel Capital Managers LLP	9.2%
Schroder Investment Management	5.4%
Australia Limited	

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

Production summary			Simberi Operations			
	_	Q3 Mar FY23	Q4 Jun FY23	Q1 Sep FY24	Q2 Dec FY24	Q3 Mar FY24
Ore Mined	kt	513	479	592	632	665
Waste mined / in-pit handling	kt	1,589	1,858	1,697	1,467	1,062
Mined grade	g/t	1.13	1.10	0.88	1.12	1.29
Ore milled	kt	566	500	464	451	428
Milled grade	g/t	1.10	1.81	0.96	1.18	1.63
Recovery	%	81	86	73	75	77
Gold production	oz	16,254	25,189	10,379	12,969	17,257
Gold sold	oz	19,994	17,895	15,579	13,644	18,016
Realised gold price	A\$/oz	2,774	2,941	2,937	3,016	3,178
All-In Sustaining Cost <sup>11</sup> A\$/o	z produced					
Mining		1,126	750	1,918	1,678	1,391
Processing		799	631	1,455	1,253	885
Site Services		512	430	796	723	556
Stripping and ore inventory ad	j	(310)	131	-	(154)	(61)
		2,127	1,942	4,169	3,500	2,771
By-product credits		(16)	(9)	(14)	(9)	(17)
Third party refining & transport	t	7	8	20	18	9
Royalties		102	51	108	79	83
Total cash operating costs		2,220	1,992	4,283	3,588	2,846
Corporate and administration		106	52	118	55	39
Rehabilitation		58	37	70	60	44
Sustaining capital expenditure		88	127	77	186	145
All-In Sustaining Cost (AISC	)	2,472	2,208	4,548	3,889	3,074

### **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.

#### **Mineral Resources and Ore Reserves Estimates**

The information in this report that relates to Mineral Resources or Ore Reserves is extracted from the report titled 'Mineral Resource and Ore Reserve Statement as at 31 December 2023' released to the ASX on 13 February 2024 (Original Report) and available to view at <u>stbarbara.com.au</u> 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 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

### JORC Table 1 Checklist of Assessment and Reporting Criteria

### Section 1 Sampling Techniques and Data – Goldboro East

Criteria	Commentary
Sampling techniques	<ul> <li>Drill holes were sampled in their entirety, in nominal meter intervals.</li> <li>Core samples have been processed as sawn to half core using a diamond-tipped core saw with nominal 1m half-core sample intervals. Samples were dispatched from Atlantic's core facility in Moose River, directly to ALS in Moncton, NB.</li> </ul>
Drilling techniques	• Diamond drilling comprised NQ core recovered using 3m barrels. Drilling was completed by Logan Drilling.
Drill sample recovery	<ul> <li>Diamond drilling recovery percentages were measured by comparing actual meters recovered per drill run versus meters measured on the core blocks. Recoveries averaged over &gt;90% with increased core loss present in fault zones and zones of strong alteration.</li> </ul>
Logging	<ul> <li>Diamond holes are qualitatively geologically logged for lithology, structure and alteration and qualitatively and quantitatively logged for veining and sulphides. Whole core was photographed when dry and wet. Core recovery and rock quality designation (RQD) were measured for each hole at the same metre-by-metre intervals.</li> <li>All holes are fully logged and photographed.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>Sawn half-core samples were submitted to ALS Chemex facility where each sample was dried, finely crushed to better than 70% passing a 2mm screen. A split up to 1,000g was taken using a Boyd rotary splitter and pulverized to better than 85% passing a 75µm screen.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>A subsample of 50g was analysed by ALS Vancouver via 50g Fire Assay with AAS finish (ALS method Au-AA24).</li> <li>A subsample of 250g was analysed by ALS Vancouver with 48 element four ICP-MS finish (ALS method ME-MS61).</li> <li>Diamond drilling QC included randomised insertion of four OREAS certified reference materials (1 in 20) and insertion of in-house blank control material (1 in 10). QAQC results were assessed monthly. Results indicate good quality in laboratory sample preparation and analysis procedures.</li> <li>ALS inserted certified standards, blanks and lab repeats.</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 an SQL database on a secure company server.
Location of data points	<ul> <li>All drill collars were surveyed by in-house surveyors using DGPS. Drill collars were surveyed initially by handheld GPS and by DGPS after hole completion. All holes were downhole surveyed using a Reflex EZ-Trac at least 6m below casing and 30m increments to the bottom-of-the hole.</li> <li>All locations were captured in UTM -NAD83 zone 20.</li> </ul>
Data spacing and distribution	<ul> <li>As a first past program to follow-up on interpretations, there were two drill hole fences completed at a east-west spacing of 90m. The three drill holes on the western line were spaced between 100-150 m apart (North-South) and a singular hole was drilled on the eastern line.</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 perpendicular (orthogonal where possible as near vertical/steeply dipping ore bodies makes this difficult) to the mapped structure.</li> <li>Sampling is done top to bottom in nominal 1m samples, and one side of the half core is taken consistently.</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 work site trailer; core is promptly logged and shipped to Moose River Core Facility, where it is cut and prepped. The samples sent to ALS are stored in locked and guarded storage facilities until receipted at the Laboratory. Third party trucking service is hired for direct transport from core Facility to ALS facility.</li> </ul>
Audits or reviews	• Regular internal audits are carried out on the sampling procedure, through to shipping and database capture.

### Section 2 Reporting of Exploration Results – Goldboro East

Criteria	Commentary
Mineral tenement and land tenure status	<ul> <li>SBM has 100% ownership of the tenement over Goldboro East (EL10621 and EL51496) and is kept in good standings.</li> </ul>
Exploration done by other parties	<ul> <li>The Goldboro region in Nova Scotia witnessed a gold rush in the 1860s, marking its early exploration for gold. Notably, the Howard Richardson shaft was sunk by the New England Mining Company in 1903 on EL 10621. While additional historical shafts and workings have been identified within the license area, production records remain elusive. Subsequent exploration efforts were carried out by various companies, including Patino Mines Limited, Seabright Explorations Inc., Aerodat Limited, Onitap Resources, Groundstar Resources Limited, Acadian Mining Corporation, D.D.V Gold Ltd., and St Barbara Ltd (Atlantic Mining).</li> </ul>
Geology	<ul> <li>Goldboro East is predominantly composed of metasedimentary rocks from the Tangier Formation, part of the extensive Goldenville Group. These rocks have undergone weak greenschist facies metamorphism. Both the Tangier Formation and the overlying Taylors Head Formation consist of closely interbedded greywacke and argillites. Structurally, the fold axes of the Boston-Richardson anticline extend west-east across the area, with the fold hinge steeply plunging to the east. Bedding mapped by Faribault reveals orientations of 083/50 on the south limb of the anticline and 340/32 on the northern limb. Faribault has identified two bedding-parallel quartz veins on the northern limb. Additionally, several Northwest-Southeast trending faults have been interpreted from aerial geophysics data. Gold mineralisation is primarily associated with quartz veins within the tightly folded anticline, with disseminated gold found in the argillite beds hosting bedding-parallel gold-bearing quartz veins.</li> </ul>
Drill hole Information	Drill hole information is included in intercept table outlining collar position obtained by DGPS pickup, hole dip and azimuth, composited mineralised intercepts lengths and depth as well as hole depth.

Criteria	Commentary
Data aggregation methods	<ul> <li>Broad down hole intercepts are reported as Significant length weighted averages using a cut-off of 0.5 g/t Au and a minimum grade*length of 3gmpt whereby such intercepts may include material below cut-off but no more than 3 sequential meters of such material and except where the average drops below the cut-off. Anomalous assay intervals are reported where ≥ 0.3 g/t Au with no more than 3 sequential meters of below cut-off.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>Down hole lengths are reported for all drilled holes, with holes inclined at angles ranging from 60° to 78° from horizontal. Drill collars were strategically placed across the fold axis, drilling back towards it. Mineralisation at Goldboro East is primarily hosted within bedding parallel (to sub-parallel) quartz veining. As a result, drill holes intersect the mineralisation at angles ranging from 45° to 90°. Down hole mineralised intercepts may be exaggerated over true widths by up to two times.</li> </ul>
Diagrams	Diagrams show all drill hole material and immaterial to Exploration results.
Balanced reporting	<ul> <li>Detail of hole 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.</li> </ul>
Other substantive exploration data	Included in the body of the report.
Further work	Included in the body of the report.

### JORC Table 1 Checklist of Assessment and Reporting Criteria

### Section 1 Sampling Techniques and Data – Southwest Target, Back Creek, NSW

Criteria	Commentary
Sampling techniques	<ul> <li>One metre aircore samples were collected from a rig-mounted cyclone via green plastic bags and were then placed directly on the ground in neat rows of thirty (depending on hole depth).</li> <li>Drill spoil was sampled with a scoop to 4 m composite samples of approximately 2 kg. The scoop was thoroughly cleaned between each 4m composite sample.</li> <li>4 m composites returning significant Au grades &gt; 50 ppb Au were resampled as 1 m splits.</li> <li>The Aircore composites and 1 m re-splits were submitted to ALS Orange where they were sorted and dried and pulverised to 85% passing -75 µm.</li> <li>The EOH Aircore samples were submitted to ALS Orange for preparation and were prepared in the same manner as the composites.</li> </ul>
Drilling techniques	<ul> <li>Aircore drilling was carried out by an 85mm bit. All holes were drilled to refusal which was generally at the fresh rock interface. Drilling was carried out by Broken Hill Exploration Drilling, who utilised a truck mounted UDR650 with Auxiliary Compressor Silenced Sullair 350 PSI x 1150 CFM.</li> </ul>
Drill sample recovery	<ul> <li>Aircore sample recoveries were routinely recorded for holes BKAC0080 to BKAC0089</li> <li>The aircore drill cyclone and sample buckets were cleaned regularly, in particular after wet ground was encountered. The cyclone was also cleaned several times during the course of each hole and after the completion of each hole.</li> </ul>
Logging	<ul> <li>All drill holes were logged in full for lithology, alteration, weathering/regolith and colour.</li> <li>Aircore logging was both qualitative and quantitative.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>Aircore samples were collected as both dry and wet samples using a scoop tool.</li> <li>Aircore samples were collected at 1 m intervals and composited in 4 m samples using a scoop to collect sample material from individual metre samples. 1 m re-split samples were also collected using a scoop.</li> <li>All composite samples were sorted, dried and pulverised by ALS Orange to produce a 25g charge prior to digestion.</li> <li>QC procedures for composite sampling involved the insertion of certified reference material and blanks at ratios of 1:50 and the collection of field duplicates at a ratio of 1:50.</li> <li>All S inserted certified standards, replicates and lab repeats</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The Aircore composites were digested with aqua regia with gold analysis by ICP-MS to a detection limit of 1 ppb. The same digested sample also tested for Ag, Al, As, B, Ba, Be, Bi. Ca. Cd. Ce. Co. Cr. Cs. Cu. Fe, Ga, Ge, Hf, Hg, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, TI, U, V, W, Y, Zn, Zr by ICPAES (ALS technique AuME-TL43). This was considered appropriate for the analysis of the regolith dominated sample medium.</li> <li>The EOH Aircore samples were analysed for Au via 30g Fire Assay with AES-ICP Finish (Au-ICP21 Method). Multi Element analysis was via a four-acid digestion with ICP-MS instrumentation (ME-MS61 method) for 48 elements (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, Ln, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, TI, U, V, W, Y, Zn &amp; Zr ). These methods are considered appropriate for analysis of what was dominantly saprock to fresh rock sample medium.</li> <li>ALS also analysed the EOH Aircore samples with a hyperspectral device using technique HYP-PKG.</li> <li>Certified reference material and blank material was inserted into the sample stream at a ratio of 1:50.</li> <li>Field duplicates were collected at a ratio of 1:50 for composite aircore samples.</li> </ul>
Verification of sampling and assaying	<ul> <li>Primary geological and sampling data were recorded into made for purpose excel spreadsheets. Data was then transferred into the St Barbara corporate DataShed database where it was validated by an experienced database specialist.</li> <li>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 GPS with ±1.8 m accuracy for easting, northings and ±10m elevation. Upon completion of the program all holes were resurveyed using the same handheld GPS to determine the final collar positions.</li> <li>No downhole surveys were conducted on Aircore drill holes.</li> <li>All locations were captured in MGA94 zone 55 grid.</li> </ul>

Criteria	Commentary
Data spacing and distribution	<ul> <li>Aircore drill holes were spaced at 100 m centres on each drill line.</li> <li>Drill lines were spaced between 300 m and 1,000 m.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Aircore drill holes BKAC0080 - 100 were angled at -70/090 but due to ground conditions holes BKAC0101– 107 were drilled vertically. The drill azimuths of inclined holes were largely perpendicular to sedimentary stratigraphy.</li> </ul>
Sample security	<ul> <li>Only trained and experienced contractors and company personnel were allowed to collect the samples; all samples were held within a secure location before dispatch to ALS in Orange for registration and preparation of samples prior to forwarding to ALS Perth or ALS Brisbane for analyses.</li> </ul>
Audits or reviews	No audits or reviews of sampling protocols have been completed.

### JORC Table 1 Checklist of Assessment and Reporting Criteria

### Section 2 Reporting of Exploration Results – Southwest Target, Back Creek, NSW

Criteria	Commentary
Mineral tenement and land tenure status	<ul> <li>SBM has 100% ownership of the two tenements comprising the Back Creek Project. These comprise EL8214 and EL8530.</li> </ul>
Exploration done by other parties	<ul> <li>There have been numerous historical holders of the project area which covers over ~128 square kilometres.</li> <li>Exploration has been conducted by numerous companies including but not limited to: Newcrest Mining Pty Ltd, Brynes FC, Base Mines Ltd, Seltrust Mining Corporation Pty Ltd, Nationwide Resources Pty Ltd, Vanwild Pty Ltd, CRA Exploration Pty Ltd, Gold Mines of Australia Ltd, Astco Resources NL, Golden Hills Mining NL, Resolute Ltd, Teck Cominco Australia Pty Ltd and Goodrich Resources Ltd.</li> </ul>
Geology	<ul> <li>SBM was targeting orogenic metasedimentary quartz-sulphide vein hosted gold mineralisation and epithermal and porphyry-style copper-gold mineralisation within Ordovician aged rocks along strike from known occurrences of Macquarie Arc rocks and mineralisation.</li> <li>The tenement package covers Ordovician aged rocks within the highly prospective Macquarie Arc in the Lachlan Orogen.</li> </ul>
Drill hole Information	<ul> <li>Drill hole information for holes returning significant results have been reported in the intercept table. Included in the intercept table were collar position obtained by GPS pickup, hole dip and azimuth acquired from hand held compass and clinometre, composited mineralised intercepts lengths and depth as well as hole depth.</li> </ul>
Data aggregation methods	<ul> <li>Broad down hole intercepts in aircore holes were reported as length weighted averages using a cut-off of 100 ppb Au. Such intercepts may include material below cut-off but no more than 1 sequential metre of such material and except where the average drops below the cut-off. Supplementary grades of &gt; 1000 ppb Au were used to highlight higher grades zones within the broader zone.</li> <li>No high grade cut was applied and no metal equivalent values were used for reporting exploration results.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>Down hole length was reported for all holes.</li> <li>True width was not known as the orientation of mineralisation was not fully understood.</li> </ul>
Diagrams	No diagrams shown in this report.
Balanced reporting	Details of all holes material to Exploration Results have been reported in the intercept table.
Other substantive exploration data	Included in the body of the report.
Further work	Further exploration surface sampling and Aircore drilling has not yet been planned.