

# Quarterly Report

## Q4 June FY22



3 months to 30 June 2022

### Highlights Q4 June FY22<sup>1</sup>

- Full year production and All-In Sustaining Cost (AISC) guidance achieved for Group and all sites
- Group gold production for Q4 was 86,403 ounces up 40% quarter on quarter with full year 280,746 ounces
- Group AISC for Q4 of \$2,007 per ounce and full year \$1,848 per ounce
- Cash in bank increased 25% quarter on quarter to \$99 million
- Senior executive relationships established with Nova Scotian Government which has improved permitting pathways for Atlantic Operations:
  - Two permits issued during quarter
  - Multiple permits able to be processed concurrently
- Inaugural Ore Resource for Old South Gwalia 1.9Mt @ 3.7g/t Au (0.2Moz)
- Corporate cost savings of \$5 million identified with an aspiration to reduce corporate cost by \$10 million in first year by consolidating into Perth

### Production summary

|                          |       | Q4 Jun<br>FY21 | Q1 Sep<br>FY22 | Q2 Dec<br>FY22 | Q3 Mar<br>FY22 | Q4 Jun<br>FY22 | Year<br>FY21 | Year<br>FY22 | Y o Y |
|--------------------------|-------|----------------|----------------|----------------|----------------|----------------|--------------|--------------|-------|
| Group TRIFR <sup>2</sup> | mhrs  | 3.9            | 3.6            | 2.7            | 2.8            | 3.4            | 3.9          | 3.4          | (13)% |
| Gold Production          | koz   | 83             | 67             | 66             | 62             | 86             | 328          | 281          | (14)% |
| All-In Sustaining Cost   | \$/oz | 1,623          | 1,492          | 1,587          | 2,290          | 2,007          | 1,616        | 1,848        | 14%   |
| Gold Sold                | koz   | 96             | 58             | 76             | 56             | 86             | 333          | 276          | (17)% |
| Realised Gold Price      | \$/oz | 2,336          | 2,408          | 2,423          | 2,475          | 2,521          | 2,221        | 2,462        | 11%   |

St Barbara Managing Director and CEO Craig Jetson said, “St Barbara has finished the year strongly, achieving both our production and cost guidance at a site and group level for FY22. Against the headwinds of cost inflation and COVID-19 impacts on our workforce availability as well as associated travel restrictions this is a rewarding result. It was achieved with improved safety performance with a lower TRIFR of 3.4 injuries per million hours worked.

Today we announce a further increase to our extensive Mineral Resource base in the Leonora province with the release of our inaugural Mineral Resource for Old South Gwalia. This initial Mineral Resource is the first instalment from Old South Gwalia from between 600 metres below surface down to 1000 metres below surface. Further resource extension drilling is planned for the coming year to grow a productive new mining front at Gwalia.

Management's focus on Gwalia and the Leonora province plan is generating early rewards with expansion of Mineral Resources and Ore Reserves and our expanded footprint across the region. We continue to execute our Leonora Province Plan. St Barbara is central to any regional consolidation with the largest Mineral Resource and Ore Reserve base in the Leonora region, a host of near term growth options, growing production from the new Zoroastrian underground mine and a cash generating processing facility which is expected to increase its processing capacity by 50% to 2.1mtpa. Following our acquisition of Bardoc, the assets have been promptly assimilated with Zoroastrian on track for first ore at the start of FY24.

<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 'Quarterly Report Q3 March FY22' released to the Australian Securities Exchange (ASX) on 28 April 2022 (Original Report) and available to view at [stbarbara.com.au](http://stbarbara.com.au). This report has not been audited.

<sup>2</sup> Total Recordable Injury Frequency Rate rolling 12-month average, mhrs – injuries per million hours.



Our development of the Leonora Province has provided invaluable insights that we are now applying in considering alternative pathways for scheduling our Atlantic Province projects, together with plans to maintain production at the Touquoy mine. With travel restrictions lifted, we have strengthened our relationships with the Government and First Nations people in Nova Scotia. In collaboration with the Government, a new permitting approach has commenced and has already yielded promising results with two permits already granted. These results provide encouragement that outstanding permitting issues can be addressed and the potential of Atlantic can be realised. Furthermore, our decision to place Simberi Operations under strategic review is aligned with our clear focus on leveraging the highest value options for the St Barbara Group.

We have made progress on plans to consolidate our corporate offices as we strive to deliver the appropriate level of support for our sites and optimise our cost base. Having already identified \$5 million in ongoing cost reduction we have an aspiration to increase cost savings to \$10 million in FY23 with a further \$10 million in FY24."

## Overview

Group gold production for the June quarter was up 40%, with all operations delivering significant quarter on quarter production improvement. Leonora's production increased due to improved grade after regaining access to higher grade stopes. Production at Simberi improved as it recovered from the COVID-19 outbreak in the third quarter. Atlantic recovered from the difficult weather conditions of the March quarter and accessed higher grade mining zones after the completion of in-pit waste relocation work.

Group All-In Sustaining Cost for the June quarter was \$2,007 per ounce, an improvement of 12% on the prior quarter due to higher grades at both Leonora and Atlantic that drove increased production efficiency.

As at 30 June 2022, St Barbara's total cash at bank was \$99 million (up from \$79 million at 31 March 2021). Total debt owing under the Company's syndicated facility on 30 June 2022 remains unchanged at C\$80 million and \$50 million.

FY23 production and cost guidance will be provided as part of the FY22 Full Year Results on 25 August 2022.

## Leonora central to consolidation in the region

The strong production quarter is further demonstration of St Barbara's progress with successful execution of its Leonora Province Plan.

The Company continues to build on its substantial Mineral Resources and Ore Reserves in and around its cash generating Gwalia mine and its readily expandable Leonora processing plant. The recently acquired Zoroastrian and Aphrodite assets are a significant addition to St Barbara's already extensive tenement holdings in this highly strategic gold region.

## Key value drivers

- Largest Mineral Resource base of 10.5 million ounces and Ore Reserve base of 2.5 million ounces in the Leonora region<sup>3</sup>:
  - Gwalia Mineral Resources at 25mt at 5.8g/t Au and Ore Reserve base of 12.9mt at 5.1g/t Au
  - The only sizeable +5g/t Au mine in the Leonora region outside the majors
- Near term Mineral Resource and Ore Reserve growth:
  - Mineral Resource extensions for Old South Gwalia targeted for September quarter FY23
  - Inaugural Tower Hill Open Pit Ore Reserve targeted for September quarter FY23
  - Inaugural Harbour Lights Open Pit Ore Reserve targeted for March quarter FY23
- Further Mineral Resource extension and infill drilling planned throughout FY23 at:
  - Old South Gwalia
  - Harbour Lights

<sup>3</sup> Refer to report titled 'Quarterly Report Q3 March FY22' released to the Australian Securities Exchange (ASX) on 28 April 2022 for updated Ore Resources and Mineral Reserves. The Leonora region includes deposits within 100km radius of Leonora processing plant and Zoroastrian and Aphrodite which are planned to be transported by rail.



- Zoroastrian extensions along strike and depth
- Aphrodite
- On track to commence underground mine portal construction at Zoroastrian in March quarter FY23
- Significant exploration potential with a Leonora land holding that increased by 70% with the Bardoc acquisition
- Leonora Processing Plant to be expanded from 1.4mtpa to 2.1mtpa
- Significant resource life underpins organic growth options with a clear plan for mill expansion underway
- Refocus of Australian exploration to maximise value for the long-term Leonora Province Plan
- Cashflow positive producer, with the Leonora operations producing \$177 million in FY22.

## Consolidated Gold Production and Guidance

| Production Summary Consolidated                  |              | Year FY21            | Q1 Sep FY22        | Q2 Dec FY22        | Q3 Mar FY22        | Q4 Jun FY22        | Year FY22           | Guidance FY22            |
|--|--------------|----------------------|--------------------|--------------------|--------------------|--------------------|---------------------|--------------------------|
| St Barbara's financial year is 1 July to 30 June |              | Year to 30 June 2021 | Qtr to 30 Sep 2021 | Qtr to 31 Dec 2021 | Qtr to 31 Mar 2022 | Qtr to 30 Jun 2022 | Year to 30 Jun 2022 | Year to 30 June 2022     |
| <b>Production</b>                                |              |                      |                    |                    |                    |                    |                     |                          |
| Atlantic   | oz           | 101,243              | 15,243             | 16,887             | 11,006             | 18,015             | 61,151              | 55-65 koz                |
| Leonora  | oz           | 152,696              | 51,757             | 48,637             | 40,559             | 50,506             | 191,459             | 180-200 koz              |
| Simberi  | oz           | 73,723               | -                  | -                  | 10,254             | 17,882             | 28,136              | 25-30 koz                |
| <b>Consolidated</b>                              | <b>oz</b>    | <b>327,662</b>       | <b>67,000</b>      | <b>65,524</b>      | <b>61,819</b>      | <b>86,403</b>      | <b>280,746</b>      | <b>275-290 koz</b>       |
| <b>Mined Grade</b>                               |              |                      |                    |                    |                    |                    |                     |                          |
| Atlantic   | g/t          | 0.88                 | 0.63               | 0.76               | 0.52               | 0.70               | 0.66                | n/a                      |
| Leonora  | g/t          | 7.6                  | 8.6                | 6.8                | 6.1                | 7.83               | 7.30                | n/a                      |
| Simberi  | g/t          | 1.35                 | 1.41               | 1.29               | 1.21               | 1.07               | 1.14                | n/a                      |
| <b>Total Cash Op. Costs</b>                      |              |                      |                    |                    |                    |                    |                     |                          |
| Atlantic   | \$/oz        | 761                  | 1,188              | 1,234              | 1,799              | 1,751              | 1,476               | n/a                      |
| Leonora  | \$/oz        | 1,185                | 1,033              | 1,164              | 1,341              | 1,323              | 1,206               | n/a                      |
| Simberi  | \$/oz        | 1,912                | -                  | -                  | 3,829              | 2,276              | 2,841               | n/a                      |
| <b>Consolidated</b>                              | <b>\$/oz</b> | <b>1,218</b>         | <b>1,071</b>       | <b>1,184</b>       | <b>1,861</b>       | <b>1,632</b>       | <b>1,444</b>        | <b>n/a</b>               |
| <b>All-In Sustaining Cost</b>                    |              |                      |                    |                    |                    |                    |                     |                          |
| Atlantic   | \$/oz        | 1,027                | 1,504              | 1,396              | 2,013              | 2,027              | 1,720               | 1,650-1,850 <sup>4</sup> |
| Leonora  | \$/oz        | 1,744                | 1,488              | 1,653              | 1,916              | 1,854              | 1,717               | 1,605-1,720              |
| Simberi  | \$/oz        | 2,162                | -                  | -                  | 4,064              | 2,416              | 3,017               | 3,200-3,600 <sup>5</sup> |
| <b>Consolidated</b>                              | <b>\$/oz</b> | <b>1,616</b>         | <b>1,492</b>       | <b>1,587</b>       | <b>2,290</b>       | <b>2,007</b>       | <b>1,848</b>        | <b>1,750-1,870</b>       |

<sup>4</sup> C\$1,500 to C\$1,685 per ounce at AUD/CAD of 0.91

<sup>5</sup> US\$2,400 to US\$2,700 per ounce at AUD/USD of 0.75



## Leonora Operations, Western Australia

| Production Summary                   |                       | Q4 Jun FY21   | Q1 Sep FY22   | Q2 Dec FY22   | Q3 Mar FY22   | Q4 Jun FY22   | Year FY21      | Year FY22      | Y o Y       |
|--------------------------------------|-----------------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|-------------|
| Ore Mined                            | kt                    | 195           | 179           | 193           | 194           | 160           | 605            | 727            | 20%         |
| Waste mined                          | kt                    | 71            | 105           | 42            | 64            | 71            | 331            | 283            | (15)%       |
| Mined grade                          | g/t                   | 6.5           | 8.6           | 6.8           | 6.1           | 7.8           | 7.6            | 7.3            | (4)%        |
| Ore milled <sup>6</sup>              | kt                    | 281           | 244           | 279           | 254           | 250           | 749            | 1,027          | 37%         |
| Milled grade <sup>6</sup>            | g/t                   | 5.2           | 6.8           | 5.6           | 5.2           | 6.5           | 6.6            | 6.0            | (9)%        |
| Recovery                             | %                     | 96            | 97            | 97            | 96            | 97            | 97             | 97             | 0%          |
| <b>Gold production</b>               | <b>oz</b>             | <b>45,157</b> | <b>51,757</b> | <b>48,637</b> | <b>40,559</b> | <b>50,506</b> | <b>152,696</b> | <b>191,459</b> | <b>25%</b>  |
| Gold sold                            | oz                    | 49,597        | 45,472        | 55,600        | 37,566        | 53,832        | 150,797        | 192,470        | 28%         |
| Realised gold price                  | \$/oz                 | 2,348         | 2,439         | 2,453         | 2,511         | 2,542         | 2,185          | 2,486          | 14%         |
| <b>All-In Sustaining Cost (AISC)</b> | <b>\$/oz produced</b> | <b>1,663</b>  | <b>1,488</b>  | <b>1,653</b>  | <b>1,916</b>  | <b>1,854</b>  | <b>1,744</b>   | <b>1,717</b>   | <b>(2)%</b> |

### Operations

Leonora's gold production for Q4 was 50.5koz which was 25% higher than the prior quarter, primarily driven by access to higher grade stopes, which had been delayed by seismic events in November 2021 and became available for mining in this quarter. Higher grade and volume of purchased ore from Linden Gold Alliance contributed an additional 2,754oz compared to the prior quarter.

Gold production for the full year was up 25% to 191.5koz, primarily driven by an increase in ore delivered to the mill which increased 37% offsetting a 9% decrease in grade. Total material moved underground increased 17% year on year as a result of a recent focus of removing historical waste stored underground and increasing ore movement capacity. During the year the underground contractor, Macmahon, mobilised a new fleet of trucks and bidders and has worked closely with St Barbara to implement a new attraction and retention program for key personnel. Rehabilitation of support for key areas of the decline has been completed during the year reducing downtime caused by decline blockages. As a result of the productivity improvements total mining cost per tonne moved decreased 4% year on year.

It is expected that grade delivered to the mill in FY23 will continue to decline as the mine enters a lower grade section. However, ore volumes mined from the Gwalia underground will continue to increase with reduced reliance on third party purchased ore. Net ore delivered to the mill is expected to increase ~15% to ~1.2mt to maintain steady gold production for the year overall.

In FY22, ore mined was negatively impacted by ongoing labour shortages due to the COVID-19 pandemic, which affected fleet reliability and utilisation. It is expected that by the end of July staffing for mining crews will be at full complement. Difficulty sourcing sufficient specialised trades such as fitters and some maintenance parts, coupled with supply chain interruptions is expected to constrain FY23 productivity at times. Development metres improved 26% to 1,244m for the quarter with a full quarter with four additional jumbo drills available.

Leonora's AISC for the quarter dropped three percent compared to the prior quarter to \$1,854 per ounce. This was principally driven by the increase in gold production due to higher head grades, offset predominantly by elevated mining costs due to major contractor labour and equipment cost increases.

6 Includes Gwalia mineralised waste, stockpile material and third party ore purchases.



## Delivering on the Leonora Province Plan

### Old South Gwalia inaugural Mineral Resource delivered

An inaugural Mineral Resource estimate for the Old South Gwalia area between approximately 600mbs and 1000mbs is summarised in the table below. Drilling of mineralisation immediately to the south of historic mine workings has successfully defined an additional 218koz of gold.

| Category                              | Tonnes ('000) | Grade (g/t Au) | Ounces ('000) |
|---------------------------------------|---------------|----------------|---------------|
| Measured                              | 27            | 4.4            | 4             |
| Indicated                             | 1,223         | 3.6            | 142           |
| <b>Total Measured &amp; Indicated</b> | <b>1,250</b>  | <b>3.6</b>     | <b>146</b>    |
| Inferred                              | 607           | 3.7            | 72            |
| <b>Total Resource</b>                 | <b>1,857</b>  | <b>3.7</b>     | <b>218</b>    |

Additional work has been completed updating the geology models between 600mbs and the surface, with an updated resource estimate in progress.

### Zoroastrian and Aphrodite underground

Following the successful integration of the Bardoc assets into St Barbara, the Zoroastrian underground mine remains on track for first ore to be delivered to the Leonora processing plant in Q1 FY24. The underground decline location is all but finalised with the completion of a geotechnical drilling program in early June. The first full year of production is expected to contribute ~30koz of gold production from ~300kt of ore at an average 3g/t Au.

The Zoroastrian underground mine has a Mineral Resource of 1.6mt of ore at 4.0g/t Au<sup>7</sup>. A mining rate of up to 400ktpa is anticipated. With the orebody open to the south along strike, St Barbara intends to move quickly to drill targeted extensions from surface to extend the mine life.

Work on Aphrodite progressed over the quarter with drilling for further metallurgical test work purposes commencing during the quarter. Construction of the Aphrodite underground mine continues to be targeted to commence in Q1 FY24 at an estimated capital cost of ~\$30 million.<sup>8</sup>

### Leonora Province Plan milestones

| Asset                          | Target date | Milestone   |
|--------------------------------|-------------|---|
| Leonora Processing Plant       | Q3 FY23     | Feasibility Study of mill expansion to 2.1Mtpa & Refractory ore processing complete |
|                                | Q3 FY23     | Construction of expansion to 2.1Mtpa commences                                      |
|                                | Q2 FY24     | Construction of Refractory ore processing commences                                 |
|                                | Q4 FY24     | Mill expansion to 2.1Mtpa complete  |
|                                | H1 FY25     | Leonora mill refractory ore processing commences                                    |
| Zoroastrian                    | Q2 FY23     | Mobilisation of mining contractor for Zoroastrian underground                       |
|                                | Q3 FY23     | Construction of underground mine commences  |
|                                | Q1 FY24     | Underground mine first ore  |
| Aphrodite                      | Q1 FY24     | Construction of underground mine portal commences                                   |
|                                | H1 FY25     | Aphrodite underground ore processing commences                                      |
| Gwalia UG and near mine assets | Q1 FY23     | Inaugural Old South Gwalia Mineral Resource (delivered ahead of schedule)           |
|                                | Q1 FY23     | Inaugural Tower Hill Open Pit Reserve   |
|                                | Q3 FY23     | Inaugural Harbour Lights Open Pit Reserve   |

<sup>7</sup> Refer to report titled 'Quarterly Report Q3 March FY22' released to the Australian Securities Exchange (ASX) on 28 April 2022 for updated Ore Resources and Mineral Reserves.

<sup>8</sup> Subject to the outcome of the PFS and final studies



## Leonora Province Plan continues to advance

Prefeasibility study (PFS) work continues to focus on the expansion of the Leonora processing plant capacity from 1.4Mtpa to 2.1Mtpa. The work has confirmed the viability of the planned upgrade and identified several enhancements to the preliminary design that was taken into the PFS.

Work continues to incorporate the Glencore Albion Process™. As previously noted, the proposed plant is being designed to alternate between the treatment of refractory and free-milling ores. The ability to process refractory ore will be unique to the Leonora processing plant within a 200km radius.

The inaugural Open Pit Ore Reserve for Tower Hill will be released in Q1 FY23 and the PFS will now move to a combined Feasibility Study (FS) that will be completed at the end of Q3 FY23, coincident with the release of inaugural Open Pit Ore Reserves for Harbour Lights. Delays have been encountered with accessing the Harbour Lights area for geotechnical and resource drilling and this has impacted anticipated delivery dates for this component.

During the quarter, the resource definition infill and geotechnical drilling campaign continued (with results reported under the Exploration section below).

## Leonora central to any consolidation of the region







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

| Production Summary                   |                       | Q4 Jun FY21   | Q1 Sep FY22 | Q2 Dec FY22 | Q3 Mar FY22   | Q4 Jun FY22   | Year FY21     | Year FY22     | Y o Y        |
|--------------------------------------|-----------------------|---------------|-------------|-------------|---------------|---------------|---------------|---------------|--------------|
| Ore Mined                            | kt                    | 430           | 21          | 184         | 394           | 872           | 2,390         | 1,471         | (38)%        |
| Waste mined                          | kt                    | 960           | 447         | 1,531       | 1,646         | 1,698         | 6,410         | 5,322         | (17)%        |
| Mined grade                          | g/t                   | 1.47          | 1.41        | 1.29        | 1.21          | 1.07          | 1.35          | 1.14          | (16)%        |
| Ore milled                           | kt                    | 457           |             |             | 479           | 726           | 2,758         | 1,205         | (56)%        |
| Milled grade                         | g/t                   | 1.30          |             |             | 1.15          | 1.02          | 1.25          | 1.07          | (14)%        |
| Recovery                             | %                     | 57            |             |             | 59            | 77            | 67            | 70            | 4%           |
| <b>Gold production</b>               | <b>oz</b>             | <b>10,824</b> |             |             | <b>10,254</b> | <b>17,882</b> | <b>73,723</b> | <b>28,136</b> | <b>(62)%</b> |
| Gold sold                            | oz                    | 17,627        | 179         |             | 7,917         | 14,672        | 82,013        | 22,768        | (72)%        |
| Realised gold price                  | \$/oz                 | 2,343         | 2,380       |             | 2,627         | 2,628         | 2,482         | 2,625         | 6%           |
| <b>All-In Sustaining Cost (AISC)</b> | <b>\$/oz produced</b> | <b>2,964</b>  |             |             | <b>4,064</b>  | <b>2,416</b>  | <b>2,162</b>  | <b>3,017</b>  | <b>40%</b>   |

### Operations

The site saw significant improvements to volumes of ore mined, waste mined, and ore milled as it recovered from the impact of the COVID-19 outbreak that affected ramp-up rates in the prior quarter.

Due to border restrictions caused by the COVID-19 pandemic, the first on ground CEO operational review for two years occurred in the third quarter. In collaboration with the new General Manager on site, a revised mine plan has been developed which delivered more ore to the mill improving production.

The AISC at Simberi dropped by 41% to \$2,416 per ounce as the site continues recover from the impact of the COVID-19 outbreak in February 2022.

The Company announced a strategic review of the Simberi asset on 22 June 2022. Front End Engineering Design (FEED) study work for the sulphide project was completed during the quarter. A number of parties have expressed interest to acquire the asset and discussions with interested parties are underway.

## Atlantic Operations, Nova Scotia, Canada

| Production Summary                   |                       | Q4 Jun FY21   | Q1 Sep FY22   | Q2 Dec FY22   | Q3 Mar FY22   | Q4 Jun FY22   | Year FY21      | Year FY22     | Y o Y        |
|--------------------------------------|-----------------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|--------------|
| Ore Mined                            | kt                    | 967           | 447           | 470           | 417           | 883           | 3,710          | 2,217         | (40)%        |
| Waste mined                          | kt                    | 1,284         | 1,753         | 1,511         | 2,276         | 1,919         | 4,722          | 7,459         | 58%          |
| Mined grade                          | g/t                   | 0.91          | 0.63          | 0.76          | 0.52          | 0.70          | 0.88           | 0.66          | (25)%        |
| Ore milled                           | kt                    | 795           | 737           | 726           | 551           | 741           | 2,918          | 2,755         | (6)%         |
| Milled grade                         | g/t                   | 1.11          | 0.70          | 0.80          | 0.69          | 0.82          | 1.15           | 0.75          | (35)%        |
| Recovery                             | %                     | 94            | 92            | 91            | 91            | 93            | 94             | 92            | (2)%         |
| <b>Gold production</b>               | <b>oz</b>             | <b>26,718</b> | <b>15,243</b> | <b>16,887</b> | <b>11,006</b> | <b>18,015</b> | <b>101,243</b> | <b>61,151</b> | <b>(40)%</b> |
| Gold sold                            | oz                    | 28,312        | 12,446        | 20,767        | 10,820        | 17,146        | 99,976         | 61,179        | (39)%        |
| Realised gold price                  | \$/oz                 | 2,311         | 2,264         | 2,363         | 2,239         | 2,360         | 2,062          | 2,320         | 13%          |
| <b>All-In Sustaining Cost (AISC)</b> | <b>\$/oz produced</b> | <b>1,011</b>  | <b>1,504</b>  | <b>1,396</b>  | <b>2,013</b>  | <b>2,027</b>  | <b>1,027</b>   | <b>1,720</b>  | <b>67%</b>   |

### Operations

Gold production increased by 64% compared to the prior quarter due to a 35% increase in mill throughput and 19% increase in feed grade.



Improved weather conditions in the current quarter allowed for an increase in mill utilisation and efficiency which improved overall mill throughput.

On 31 May 2022, the mill poured its 400,000<sup>th</sup> ounce of gold. At the end of the financial year, Atlantic's total production since operations began in 2017 reached 413,785oz of gold.

The improved feed grade was driven by higher grades being mined from the Touquoy pit. As flagged, the prior quarter was focused on relocating temporary in-pit waste that blocked access to a higher grade area of the mine, known as Phase 3. The north and south sides of Phase 3 were exposed during the quarter, opening two primary production areas, allowing for increased mine efficiency and production rates, and access to higher grade ore. With the final push in FY22, the high grade ore zones in Phase 3 have been completed. Ore grades through FY23 are anticipated to average ~0.57g/t Au.

Atlantic's AISC in the current quarter was in line with the prior quarter, increasing by one percent to \$2,027 per ounce. Increases in mining costs driven by contractor costs for waste rock removal and the operation of an additional production area were offset by a 19% increase in milled grade.

In FY22, Touquoy Operations reached several milestones. At the end of June, over 500,000oz of gold had been mined from the pit, well beyond the original life of mine (LOM) plan of 425,000oz of gold. At the end of the financial year, long-term mine stockpiles were 5.7mt containing 84,241oz of gold ready for processing. Looking back at the five years of operations, the 2017 LOM plan had the mine producing 9,461,355 tonnes of ore at a strip ratio of 1.89. Instead, the mine has produced 17,368,086 tonnes of ore at a strip ratio of 1.04. The 2017 LOM plan had a grade of 1.4g/t Au and to date the mine has produced at an average grade of 0.90g/t Au. Much of the increase in ore tonnes was originally predicted to be waste from resource definition drilling but has been determined to be low (0.38-0.48g/t Au) and medium (0.48-0.68g/t Au) grade ore during operational grade control drilling. This contributed significantly to the current long-term stockpiles located close to the Touquoy processing plant.

Cessation of mining of the Touquoy pit remains on schedule at the end of the first half of FY23. Once mining is completed, milling operations will move to processing the long-term low/medium grade stockpiles.

During the quarter, the Managing Director and CEO Craig Jetson met with the Premier of Nova Scotia, Tim Houston and the Minister for Environment and Climate Change, Tim Halman. The discussions with both Mr Houston and Mr Halman centred around the permitting challenges the company has faced and how Atlantic Operations can work more collaboratively with Government throughout the permitting process in Nova Scotia. Following these discussions, a new collaborative approach has commenced which has resulted in the company being able to submit multiple permits at once and recently achieving two smaller but important permits for an ammonia treatment plant and for storage of waste rock in the clay borrow area. These recent approvals provide encouragement that this new collaborative approach, which is also being applied to our permit application to the raise the Tailings Management Facility (TMF), will result in a positive outcome. A determination on this permit is due in August 2022 and provides tailings capacity for the current financial year.

## Atlantic growth projects

Permitting of Beaver Dam has reached an advanced stage, however stakeholder discussions with the Fisheries and Oceans Canada (DFO) and First Nations groups continue. As announced earlier, the Company has foreshadowed a delay of at least 6 months for EIS approval for Beaver Dam. The Fifteen Mile Stream project has been extended to include all of the 4 identified resource open pits and enable development of the full potential of this project. All technical work to support Information Request responses and the revised project description are underway with submission expected in Q3 FY23.

Applications to continue permitting Beaver Dam and Fifteen Mile Stream under the Federal Canadian Environmental Assessment Act 2012 (CEAA 2012) process have been made and are expected to be determined in late August 2022.





## Finance (unaudited)

- 85,650 ounces of gold were sold in Q4 June FY22, at an average realised gold price of \$2,521 per ounce (Q3 March FY22: 56,303 ounces at \$2,475 per ounce), with 12,327 ounces delivered to call options that matured in the quarter at a strike price of C\$2,050 per ounce (average of \$2,295 per ounce). Additionally, 30,000 ounces were delivered to gold forward contracts at a strike price of \$2,465 per ounce.
- Operational cash flow was \$54 million in Q4 June FY22. After growth capital, corporate costs and tax payments (net of tax refunds), net cash contribution was \$17 million.
- Total debt owing under the Company's syndicated facility on 30 June 2022 was C\$80 million and \$50 million.
- Total cash at bank on 30 June 2022 was \$99 million which is \$20 million higher than the prior quarter.
- Cash movements are summarised in the following table:

| Cash movements & balance A\$M (unaudited) |          | Q4 Jun FY21 | Q1 Sep FY22 | Q2 Dec FY22 | Q3 Mar FY22 | Q4 Jun FY22 | Year FY22 |
|---|----------|-------------|-------------|-------------|-------------|-------------|-----------|
| Operating cash flow <sup>9</sup>          | Atlantic | 41          | 8           | 26          | (3)         | 8           | 39        |
|   | Leonora  | 48          | 47          | 54          | 25          | 51          | 177       |
|   | Simberi  | 11          | (39)        | (31)        | (20)        | (5)         | (95)      |
| Operational cash contribution             |          | 100         | 16          | 49          | 2           | 54          | 121       |
| Growth capital                            | Atlantic | (5)         | (2)         | (3)         | (2)         | (4)         | (11)      |
|   | Leonora  | (2)         | (5)         | (1)         | (2)         | (1)         | (9)       |
|   | Simberi  | (1)         | (4)         | (21)        | (6)         | (8)         | (39)      |
| Leonora mining equipment                  |          | (16)        | -           | -           | -           | -           | -         |
| Project costs                             |          | (13)        | (4)         | -           | (2)         | (2)         | (8)       |
| Corporate costs <sup>10</sup>             |          | (6)         | (16)        | (7)         | (7)         | (7)         | (37)      |
| Corporate royalties                       |          | (2)         | (3)         | (3)         | (2)         | (2)         | (10)      |
| Exploration                               |          | (5)         | (4)         | (6)         | (6)         | (5)         | (21)      |
| Investments                               |          | -           | (21)        | -           | (8)         | (1)         | (30)      |
| Income tax payments                       |          | (4)         | (15)        | (8)         | 8           | (13)        | (28)      |
| Working capital movement                  |          | -           | (17)        | 3           | 7           | 6           | (1)       |
| Cash flows before finance costs           |          | 46          | (75)        | 3           | (18)        | 17          | (73)      |
| Net interest income/(expense)             |          | -           | (1)         | -           | -           | (1)         | (2)       |
| Lease facility                            |          | 16          | (1)         | -           | 4           | 5           | 8         |
| Other financing                           |          | -           | (1)         | 49          | (1)         | (1)         | 46        |
| Syndicated facility repayments            |          | (21)        | -           | -           | -           | -           | -         |
| Linden Gold Alliance Loan                 |          | -           | -           | -           | -           | -           | -         |
| Dividends paid                            |          | -           | (13)        | -           | -           | -           | (13)      |
| Net movement for period                   |          | 41          | (91)        | 52          | (15)        | 20          | (34)      |
| Cash balance at start of quarter          |          | 92          | 133         | 42          | 94          | 79          | 133       |
| <b>Cash balance at end of quarter</b>     |          | <b>133</b>  | <b>42</b>   | <b>94</b>   | <b>79</b>   | <b>99</b>   | <b>99</b> |

| Group Sustaining Capex | Actual Q1 Sep FY22 | Actual Q2 Dec FY22 | Actual Q3 Mar FY22 | Actual Q4 Jun FY22 | Actual Year FY22 | Guidance FY22 |
|------------------------|--------------------|--------------------|--------------------|--------------------|------------------|---------------|
|                        | \$M                | \$M                | \$M                | \$M                | \$M              | \$M           |
| Atlantic               | 2                  | 1                  | 1                  | 3                  | 7                | 5-10          |
| Leonora                | 12                 | 12                 | 13                 | 13                 | 50               | 55-65         |
| Simberi                | 1                  | 1                  | 1                  | 1                  | 4                | 5-10          |
| <b>Consolidated</b>    | <b>15</b>          | <b>14</b>          | <b>15</b>          | <b>17</b>          | <b>61</b>        | <b>65-85</b>  |

9 Net of sustaining capex

10 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 Growth Capex  | Actual<br>Q1 Sep FY22 | Actual<br>Q2 Dec FY22 | Actual<br>Q3 Mar FY22 | Actual<br>Q4 Jun FY22 | Actual Year<br>FY22 | Guidance<br>FY22 |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------|------------------|
|                     | \$M                   | \$M                   | \$M                   | \$M                   | \$M                 | \$M              |
| Atlantic            | 2                     | 3                     | 2                     | 4                     | 11                  | 15-20            |
| Leonora             | 5                     | 1                     | 2                     | 1                     | 9                   | 10-15            |
| Simberi             | 4                     | 21                    | 6                     | 8                     | 39                  | 35-40            |
| <b>Consolidated</b> | <b>11</b>             | <b>25</b>             | <b>10</b>             | <b>13</b>             | <b>59</b>           | <b>60-75</b>     |

Hedging in place at the date of this report comprises:

| Financial Year   | Volume ounces | Price \$/oz | Type                  | Delivery             | Delivery schedule |
|------------------|---------------|-------------|-----------------------|----------------------|-------------------|
| Aug 22 to Dec 22 | 21,501        | C\$2,050    | European call options | Apr 2022 to Dec 2022 | Monthly           |

## Corporate activity

St Barbara will be moving its head office and registered address to Perth, Western Australia, on 31 August 2022. This has enabled an initial \$5 million of embedded savings per annum with an aspirational target of a further \$10 million in cost savings to be achieved over the coming year.

## Exploration activities

### Australia

#### Gwalia mine exploration, Western Australia

A drilling program was completed in Q3 FY22 and has successfully confirmed the continuity of the Old South Gwalia Series between 600mbs and 1000mbs. The drill intercepts show a wide zone of strong potassic alteration with narrow high-grade lenses of sheared quartz veins returning moderate gold grades.

Drilling is planned for FY23 to Old South Gwalia up dip (above 600mbs), with a second drill rig focusing on this and other mid-mine level areas.

#### Leonora near mine exploration, Western Australia

Final results were returned from the 19 hole, 4,865m Resource definition drilling program at Tower Hill. An additional two Tower Hill geotechnical drill holes were completed for 286.2m in Q4 June FY22.

Assays were returned for the remaining two holes of the previously completed Resource definition program at Harbour Lights, which comprised four holes for 995m. The best results included:

HLDD0003: 15.70m @ 4.8 g/t Au from 162.30m, including 6.25m @ 10.4 g/t Au from 168.75m,

HLDD0004: 19.05m @ 2.5 g/t Au from 166.05m, including 5.75m @ 5.7 g/t Au from 177.25m.

Five holes for 950m of Resource definition drilling remain to be completed at Harbour Lights.

A Harbour Lights geotechnical drill program continued in Q4 June FY22, with one hole completed for 99.3m. The total program to date comprises three holes for 349.7m completed, with three holes for 550m still to drill. The remaining Resource definition and geotechnical drilling at Harbour Lights should be completed in H1 FY23.

The Tower Hill Deeps drilling program comprising three holes for 2,042.6m was completed in Q4 June FY22. The program tested the down plunge potential of the Tower Hill deposit below the current Open Pit Mineral Resource. The drilling intersected quartz veining, alteration and sulphides in the projected down plunge location, however the assay results returned were too low-grade to be economic.

A Harbour Light Deeps drilling program commenced in Q4 June FY22 to test the depth potential below the current 12.88 Mt @ 1.5 g/t Au (0.6 Moz) Open Pit Mineral Resource. To date three holes have been completed and a fourth is in progress for 2,606.5m. Results have been returned for the first three holes.



### **Bardoc, Western Australia**

A geotechnical diamond drilling program comprising three holes for 452.4m was completed at Zoroastrian to assist in determining the location of the underground decline. A metallurgical diamond drilling program at Aphrodite comprising 11 holes for 4,540m commenced in June. To date, three holes have been completed and a fourth hole is in progress for 1,293.9m. The aim of the program is to provide approximately 450 kg of suitable Aphrodite ore to enable further metallurgical test work to be completed.

### **Lake Wells Gold Project, Western Australia**

No field activities were conducted at Lake Wells during the quarter. Following the FY22 drilling program and analysis of results, St Barbara is withdrawing from the Lake Wells Joint Venture, effective 12 August 2022, as the Company focuses on Leonora Province Plan exploration.

### **Pinjin Project, Western Australia**

No field activities were conducted by St Barbara during the quarter. Earn-In and Joint Venture partner Plowden Resources Pty Ltd has designed a year one work program comprising 10 RC drill holes for 2,500m testing four targets. St Barbara is withdrawing from the Pinjin North Joint Venture with E79 Gold Mines Limited, effective 19 September 2022, as the Company focuses on Leonora Province Plan exploration.

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

Results were returned for the 20 aircore hole drill program for 1,546m completed in March at the South West target at EL8214. The drilling was completed on 3 east-west fence lines with holes spaced 100m apart. The drilling tested a 1 km strike length centred on a previously defined gold in bedrock anomaly. Encouragingly, anomalous gold in bedrock of >0.5 g/t Au was defined over the 1km strike length. Best results returned included:

BKAC0059: 5m @ 1.3 g/t Au from 38 m,

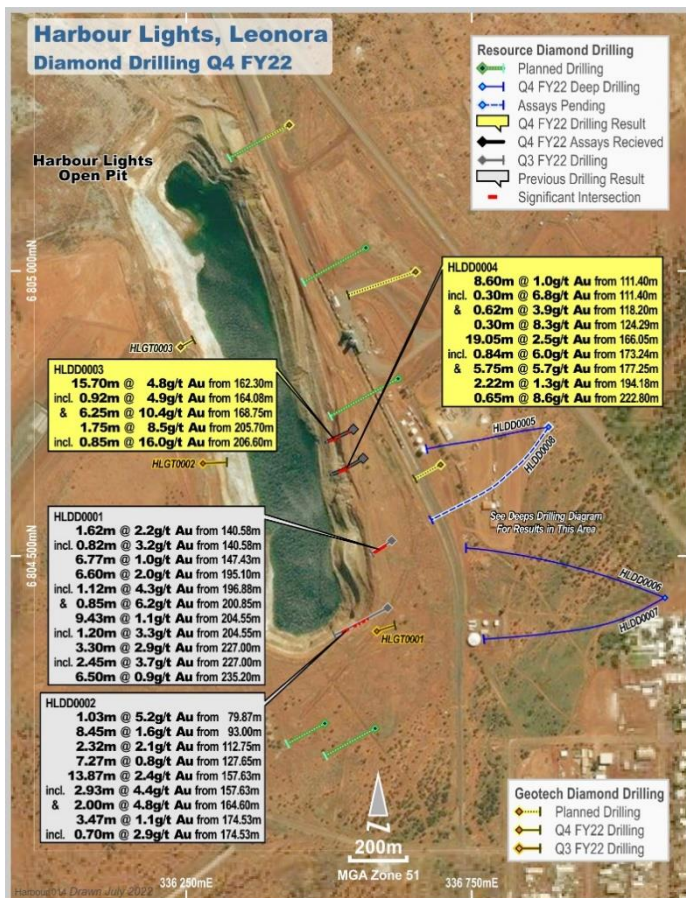
BKAC0063: 1m @ 4.8 g/t Au from 76 m.

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

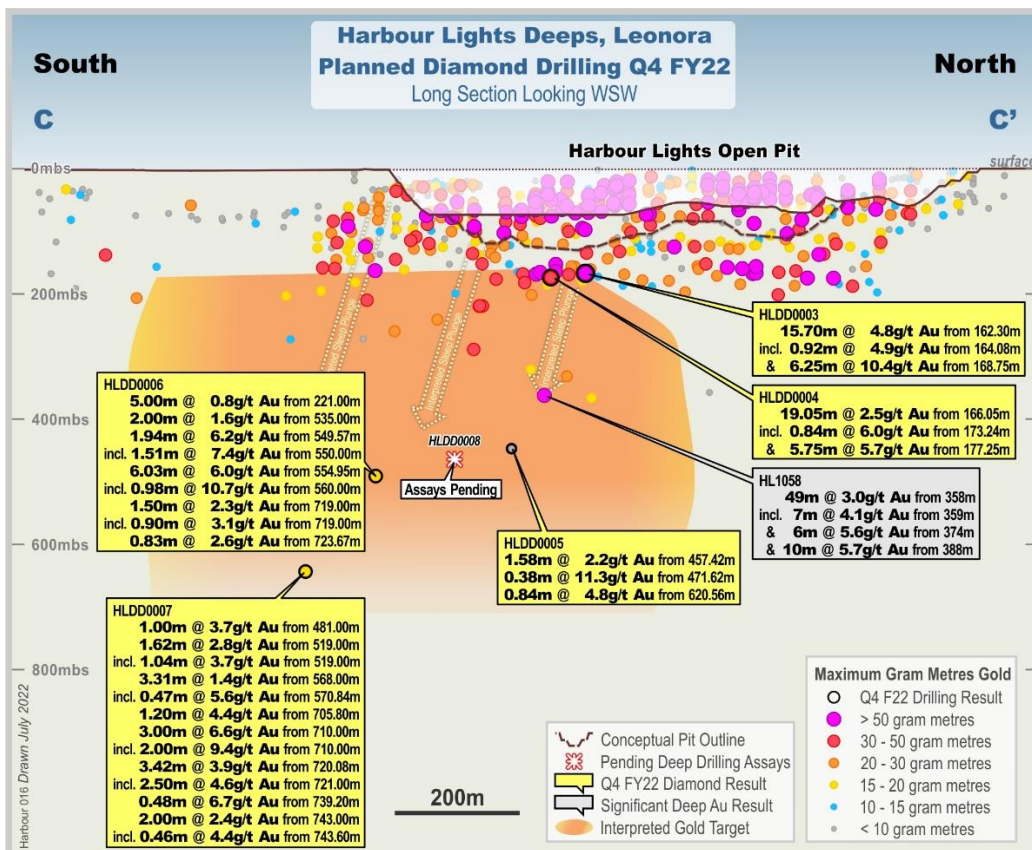
St Barbara Limited withdrew from the Drummartin Joint Venture with Catalyst Metals Ltd on 23 June 2022, as the Company focuses on Leonora Province Plan exploration.



## Harbour Lights Diamond Drilling, Q4 FY22 Results



## Harbour Lights Deeps Diamond Drilling, Long Section, Q4 FY22





## Canada

### Moose River Corridor

Re-logging and re-sampling of historical diamond drill core from the Mooseland Gold Project commenced in April 2022 and is ongoing. To date, 11 of 32 priority historical diamond drill holes have been re-logged and re-sampled.

### Touquoy Camp

No field activities occurred during the quarter.

### Southwest Regional

571 till and 32 rock chip samples were collected during a regional surface sampling program covering the Pleasantfield trend, Thunderbolt, Hurricane and Mustang targets.

### Northeast Regional

UAV magnetic surveys were completed (191 line km) over Lower Seal Harbour and Isaac's Harbour targets.

## Papua New Guinea

### Simberi, Tatau & Tabar Islands

Diamond and RC drilling of oxide, transitional and sulphide targets on Simberi Island (ML136) to define potential additional Inferred to Indicated Resources continued through Q4 FY22. 21 diamond drill holes for 1,791.9m were completed at Trotsky, Andora and Pigicow during the quarter. An additional nine RC drill holes for 557m were completed at Trotsky.

Best preliminary results returned from Trotsky include:

SRCH125: 37m @ 1.9 g/t Au from 6m including 24m @ 2.7 g/t Au from 6 m.

Best preliminary results returned from Pigicow include:

SDH495: 13m @ 1.8 g/t Au from 0m and 18m @ 2.0 g/t Au from 20 m.

Nine trenches for 610m were completed at Andora and Trotsky on ML136 to assist in drill targeting.

A field program of 200 soil samples, 200m of hand trenching (40 samples), 100 rock chip samples and 10 RC drill holes (100 m) was completed on West Simberi Island, EL609 during Q4 June FY22. A separate field program of 400m of hand trenching (80 samples) and 50 rock chip samples was completed on East Tatau Island, EL2462 in H2 FY22.

## Group Exploration Expenditure (unaudited)

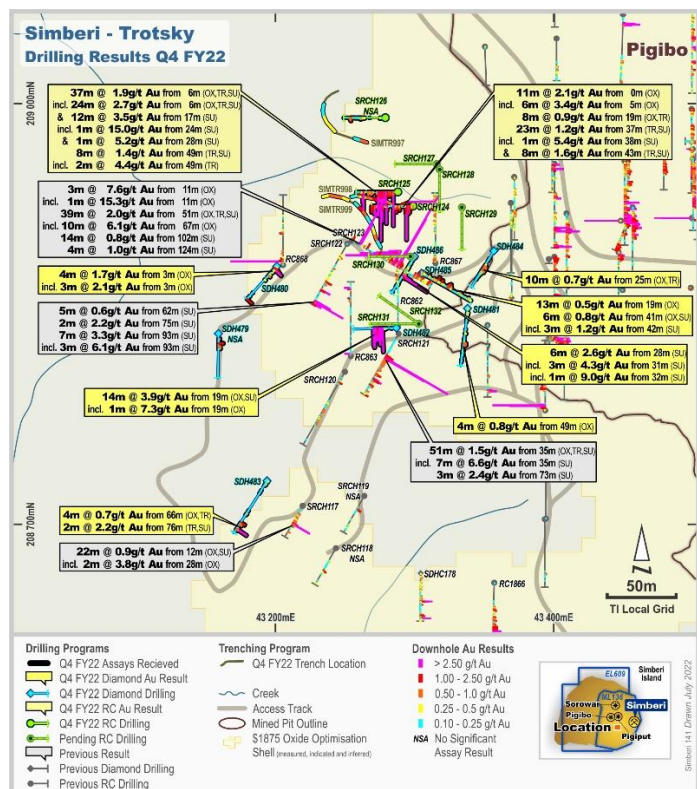
| Group Exploration                     | Actual<br>Q1 Sep<br>FY22<br>\$M | Actual<br>Q2 Dec<br>FY22<br>\$M | Actual<br>Q3 Mar<br>FY22<br>\$M | Actual<br>Q4 Jun<br>FY22<br>\$M | Actual<br>Year FY22<br>\$M | Guidance<br>FY22<br>\$M |
|---------------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|----------------------------|-------------------------|
| Australia*                            | 1                               | 3                               | 4                               | 2                               | 10                         | 13-15                   |
| Tabar Island Group, Papua New Guinea* | 1                               | 1                               | 1                               | 3                               | 6                          | 4-5                     |
| Nova Scotia, Canada*                  | 1                               | 1                               | 1                               | 1                               | 4                          | 3-5                     |
| <b>Consolidated</b>                   | <b>3</b>                        | <b>5</b>                        | <b>6</b>                        | <b>6</b>                        | <b>20</b>                  | <b>20-25</b>            |

\* These items are expensed

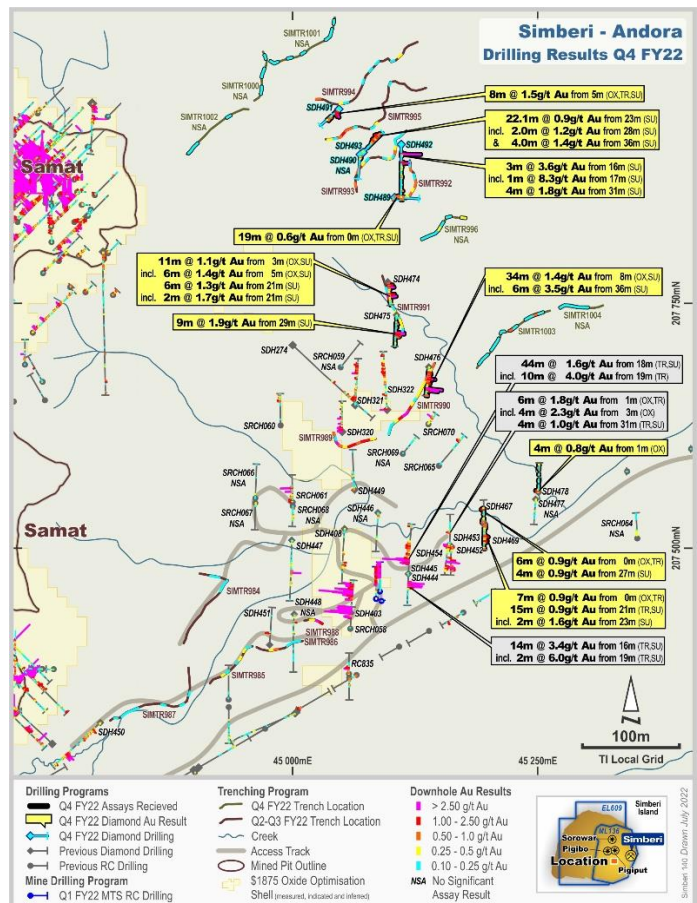




## Trotsky Diamond & RC Drilling Q4 FY22 Results, Simberi Island, Papua New Guinea



## Andora Diamond Drilling Q4 FY22 Results, Simberi Island, Papua New Guinea







## Quarterly briefing and audio webcast

Mr Craig Jetson, Managing Director & CEO, will brief analysts and investors on the Q4 June FY22 Quarterly Report at 11.00am Australian Eastern Standard Time (UTC + 10 hours) on Wednesday 27 July 2022.

Analysts and investors can register for the briefing at <https://s1.c-conf.com/diamondpass/10023134-et6sdnc.html>.

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

### Authorised by

Craig Jetson

*Managing Director & CEO*  
27 July 2022

## For more information

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*Head of Investor Relations*

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*Manager Investor Relations*

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## Share Capital

| Issued shares                       |  | ASX:SBM            |
|-------------------------------------|--|--------------------|
| Opening Balance 31 March 2022       |  | 709,527,049        |
| Issued                              |  | 106,207,719        |
| <b>Closing balance 30 June 2022</b> |  | <b>815,734,768</b> |

| Unlisted employee rights                         |  | ASX:SBMAK        |
|--|--|------------------|
| Opening balance 31 March 2022                    |  | <b>5,895,560</b> |
| Issued   |  | Nil              |
| Exercised as shares                              |  | Nil              |
| Lapsed <sup>11</sup>                             |  | (293,274)        |
| <b>Closing balance 30 June 2022</b>              |  | <b>5,602,286</b> |
| Comprises rights expiring:                       |  |                  |
| 30 June 2022                                     |  | 1,049,552        |
| 30 June 2023                                     |  | 1,156,956        |
| 30 June 2024                                     |  | 3,176,311        |
| Unlisted rights issued under the NED Equity Plan |  | 24,163           |
| <b>Closing balance 30 June 2022</b>              |  | <b>5,602,286</b> |

11 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*

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*

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Australian Securities Exchange (ASX) Listing code "SBM"

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

Financial figures are in Australian dollars (unless otherwise noted)

Financial year commences 1 July and ends 30 June

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

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## Substantial Shareholders

| % of Holdings <sup>12</sup>    |        |
|--------------------------------|--------|
| L1 Capital                     | 10.69% |
| Van Eck Associates Corporation | 8.54%  |
| IPConcept (Luxembourg) S.A.    | 5.27%  |

## Scheduled future reporting

| Date            | Report                             |
|-----------------|------------------------------------|
| 25 August 2022  | FY22 Full Year Financial Report    |
| 19 October 2022 | Q1 September FY23 Quarterly Report |
| 26 October 2022 | Annual General Meeting             |

Dates are tentative and subject to change

<sup>12</sup> As notified by the substantial shareholder up to 6 July 2022



## Production and All-In Sustaining Cost

| Production summary   |           | Atlantic Operations |                |                |                |               | Leonora Operations |                |                |                |                | Simberi        |                |                |                |               |
|--|-----------|---------------------|----------------|----------------|----------------|---------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|
|  |           | Q1 Sep<br>FY22      | Q2 Dec<br>FY22 | Q3 Mar<br>FY22 | Q4 Jun<br>FY22 | FY22          | Q1 Sep<br>FY22     | Q2 Dec<br>FY22 | Q3 Mar<br>FY22 | Q4 Jun<br>FY22 | FY22           | Q1 Sep<br>FY22 | Q2 Dec<br>FY22 | Q3 Mar<br>FY22 | Q4 Jun<br>FY22 | FY22          |
| Ore Mined  | kt        | 447                 | 470            | 417            | 883            | 2,217         | 179                | 193            | 194            | 160            | 727            | 21             | 184            | 394            | 872            | 1,471         |
| Waste mined  | kt        | 1,753               | 1,511          | 2,276          | 1,919          | 7,459         | 105                | 42             | 64             | 71             | 283            | 447            | 1,531          | 1,646          | 1,698          | 5,322         |
| Mined grade  | g/t       | 0.63                | 0.76           | 0.52           | 0.70           | 0.66          | 8.6                | 6.8            | 6.1            | 7.8            | 7.3            | 1.41           | 1.29           | 1.21           | 1.07           | 1.14          |
| Ore milled <sup>13</sup>   | kt        | 737                 | 726            | 551            | 741            | 2,755         | 244                | 279            | 254            | 250            | 1,027          |                |                | 479            | 726            | 1,205         |
| Milled grade <sup>13</sup>                                       | g/t       | 0.70                | 0.80           | 0.69           | 0.82           | 0.75          | 6.8                | 5.6            | 5.2            | 6.5            | 6.0            |                |                | 1.15           | 1.02           | 1.07          |
| Recovery   | %         | 92                  | 91             | 91             | 93             | 92            | 97                 | 97             | 96             | 97             | 97             |                |                | 59             | 77             | 70            |
| <b>Gold production</b>   | <b>oz</b> | <b>15,243</b>       | <b>16,887</b>  | <b>11,006</b>  | <b>18,015</b>  | <b>61,151</b> | <b>51,757</b>      | <b>48,637</b>  | <b>40,559</b>  | <b>50,506</b>  | <b>191,459</b> |                |                | <b>10,254</b>  | <b>17,882</b>  | <b>28,136</b> |
| Gold sold  | oz        | 12,446              | 20,767         | 10,820         | 17,146         | 61,179        | 45,472             | 55,600         | 37,556         | 53,832         | 192,470        | 179            |                | 7,917          | 14,672         | 22,768        |
| Realised gold price  | A\$/oz    | 2,264               | 2,363          | 2,239          | 2,360          | 2,320         | 2,439              | 2,453          | 2,511          | 2,542          | 2,486          | 2,380          |                | 2,627          | 2,628          | 2,625         |
| <b>All-In Sustaining Cost<sup>14</sup> A\$/oz produced</b>       |           |                     |                |                |                |               |                    |                |                |                |                |                |                |                |                |               |
| Mining   |           | 508                 | 442            | 869            | 953            | 686           | 658                | 756            | 930            | 913            | 806            |                |                | 1,270          | 1,231          | 1,245         |
| Processing   |           | 488                 | 493            | 729            | 515            | 541           | 177                | 176            | 238            | 179            | 190            |                |                | 1,096          | 717            | 855           |
| Site Services  |           | 232                 | 245            | 412            | 298            | 287           | 114                | 104            | 127            | 116            | 115            |                |                | 1,130          | 589            | 786           |
| Stripping and ore inventory adj                                  |           | (78)                | (7)            | (256)          | (60)           | (85)          | 32                 | 44             | (8)            | 38             | 28             |                |                | 284            | (307)          | (92)          |
|  |           | <b>1,150</b>        | <b>1,173</b>   | <b>1,754</b>   | <b>1,706</b>   | <b>1,429</b>  | <b>981</b>         | <b>1,080</b>   | <b>1,287</b>   | <b>1,246</b>   | <b>1,139</b>   |                |                | <b>3,780</b>   | <b>2,230</b>   | <b>2,794</b>  |
| By-product credits   |           | (2)                 | (1)            | (2)            | (2)            | (2)           | (3)                | (3)            | (3)            | (3)            | (3)            |                |                | (14)           | (14)           | (14)          |
| Third party refining & transport                                 |           | 3                   | 4              | 3              | 2              | 3             | 1                  | 1              | 1              | 1              | 1              |                |                | -              | 4              | 3             |
| Royalties  |           | 37                  | 58             | 44             | 45             | 46            | 54                 | 86             | 56             | 79             | 69             |                |                | 63             | 56             | 58            |
| <b>Total cash operating costs</b>                                |           | <b>1,188</b>        | <b>1,234</b>   | <b>1,799</b>   | <b>1,751</b>   | <b>1,476</b>  | <b>1,033</b>       | <b>1,164</b>   | <b>1,341</b>   | <b>1,323</b>   | <b>1,206</b>   |                |                | <b>3,829</b>   | <b>2,276</b>   | <b>2,841</b>  |
| Corporate and administration                                     |           | 123                 | 75             | 134            | 71             | 97            | 88                 | 94             | 130            | 77             | 96             |                |                | 61             | 76             | 71            |
| Corporate royalty <sup>15</sup>                                  |           | -                   | -              | -              | -              | -             | 46                 | 48             | 61             | 54             | 52             |                |                | -              | -              | -             |
| Rehabilitation   |           | 31                  | 28             | 43             | 26             | 31            | 6                  | 7              | 8              | 7              | 7              |                |                | 54             | 31             | 40            |
| Capitalised mine development <sup>1515</sup>                     |           | -                   | -              | -              | -              | -             | 208                | 203            | 273            | 252            | 232            |                |                | -              | -              | -             |
| Sustaining capital expenditure                                   |           | 162                 | 59             | 37             | 179            | 116           | 28                 | 50             | 48             | 41             | 41             |                |                | 120            | 33             | 65            |
| <b>All-In Sustaining Cost (AISC)<br/>(Gwalia)<sup>1515</sup></b> |           |                     |                |                | <b>2,027</b>   | <b>1,720</b>  | <b>1,409</b>       | <b>1,566</b>   | <b>1,861</b>   | <b>1,754</b>   | <b>1,634</b>   |                |                |                | <b>2,416</b>   | <b>3,017</b>  |
| Ore purchased <sup>1515</sup>                                    |           |                     |                |                |                |               | 79                 | 87             | 55             | 100            | 83             |                |                |                |                |               |
| <b>All-In Sustaining Cost (AISC)</b>                             |           | <b>1,504</b>        | <b>1,396</b>   | <b>2,013</b>   | <b>2,027</b>   | <b>1,720</b>  | <b>1,488</b>       | <b>1,653</b>   | <b>1,916</b>   | <b>1,854</b>   | <b>1,717</b>   |                |                | <b>4,064</b>   | <b>2,416</b>   | <b>3,017</b>  |

<sup>13</sup> Includes Gwalia mineralised waste, stockpile ore and third party purchased ore

<sup>14</sup> Non-IFRS measure, refer Appendix

<sup>15</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.

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## 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 for Old South Gwalia is based on information compiled by Ms. Jane Bateman who is a Fellow of the Australasian Institute of Mining and Metallurgy. Jane Bateman is a full-time employee of St Barbara Ltd and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which she 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". Jane Bateman consents to the inclusion in the statement of the matters based on her information in the form and context in which it appears.

The information in this report that relates to all other Mineral Resources or Ore Reserves is extracted from the report titled 'Quarterly Report Q3 March FY22' released to the Australian Securities Exchange (ASX) on 28 April 2022 (Original Report) and available to view at [stbarbara.com.au](http://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 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](http://stbarbara.com.au).



## Exploration Tables

**Table 2: Tower Hill Significant Intercepts – Leonora, WA**

| Hole Id  | North     | East    | RL  | Dip/<br>Azimuth | Total Depth | Down-hole<br>Mineralised Intersection |        |          |            |
|----------|-----------|---------|-----|-----------------|-------------|---------------------------------------|--------|----------|------------|
|          | m         | m       | m   | degrees         | m           | From                                  | To     | Interval | Gold grade |
|          |           |         |     |                 |             | m                                     | m      | m        | g/t Au     |
| TWDD0369 | 6,802,235 | 336,954 | 371 | -66 / 269       | 381.49      | 335.85                                | 337.61 | 1.76     | 1.9        |
|          |           |         |     |                 |             | 342.00                                | 345.00 | 3.00     | 0.8        |
|          |           |         |     |                 |             | 351.50                                | 356.00 | 4.50     | 0.5        |

**Table 3: Tower Hill Deeps Significant Intercepts – Leonora, WA**

| Hole Id  | North     | East    | RL  | Dip/<br>Azimuth | Total Depth | Down-hole<br>Mineralised Intersection |        |          |            |
|----------|-----------|---------|-----|-----------------|-------------|---------------------------------------|--------|----------|------------|
|          | m         | m       | m   | degrees         | m           | From                                  | To     | Interval | Gold grade |
|          |           |         |     |                 |             | m                                     | m      | m        | g/t Au     |
| TWDD0370 | 6,802,200 | 337,437 | 372 | -73 / 266       | 714.40      | 615.00                                | 618.58 | 3.58     | 1.3        |
| TWDD0371 | 6,802,300 | 337,350 | 373 | -77 / 265       | 663.70      | 60.80                                 | 62.25  | 1.45     | 1.9        |
| TWDD0372 | 6,802,125 | 337,455 | 373 | -74 / 259       | 664.50      | No Significant Results                |        |          |            |

**Table 4: Harbour Lights Significant Intercepts – Leonora, WA**

| Hole Id          | North     | East    | RL  | Dip/<br>Azimuth | Total Depth | Down-hole<br>Mineralised Intersection |        |          |            |
|------------------|-----------|---------|-----|-----------------|-------------|---------------------------------------|--------|----------|------------|
|                  | m         | m       | m   | degrees         | m           | From                                  | To     | Interval | Gold grade |
|                  |           |         |     |                 |             | m                                     | m      | m        | g/t Au     |
| HLDD0003         | 6,804,722 | 336,543 | 373 | -78 / 243       | 228.60      | 162.30                                | 178.00 | 15.70    | 4.8        |
| <i>including</i> |           |         |     |                 |             | 164.08                                | 165.00 | 0.92     | 4.9        |
| <i>and</i>       |           |         |     |                 |             | 168.75                                | 175.00 | 6.25     | 10.4       |
|                  |           |         |     |                 |             | 205.70                                | 207.45 | 1.75     | 8.5        |
| <i>including</i> |           |         |     |                 |             | 206.60                                | 207.45 | 0.85     | 16.0       |
| HLDD0004         | 6,804,671 | 336,560 | 372 | -80 / 239       | 273.60      | 111.40                                | 120.00 | 8.60     | 1.0        |
| <i>including</i> |           |         |     |                 |             | 114.40                                | 111.70 | 0.30     | 6.8        |
| <i>and</i>       |           |         |     |                 |             | 118.20                                | 118.82 | 0.62     | 3.9        |
|                  |           |         |     |                 |             | 124.29                                | 124.59 | 0.30     | 8.3        |
|                  |           |         |     |                 |             | 166.05                                | 185.10 | 19.05    | 2.5        |
| <i>Including</i> |           |         |     |                 |             | 173.24                                | 174.08 | 0.84     | 6.0        |
| <i>and</i>       |           |         |     |                 |             | 177.25                                | 183.00 | 5.75     | 5.7        |
|                  |           |         |     |                 |             | 194.18                                | 196.40 | 2.22     | 1.3        |
|                  |           |         |     |                 |             | 222.80                                | 223.45 | 0.65     | 8.6        |



**Table 5: Harbour Lights Deeps Significant Intercepts – Leonora, WA**

| Hole Id          | North     | East    | RL  | Dip/<br>Azimuth | Total Depth | Down-hole<br>Mineralised Intersection |        |          |            |
|------------------|-----------|---------|-----|-----------------|-------------|---------------------------------------|--------|----------|------------|
|                  | m         | m       | m   | degrees         | m           | From                                  | To     | Interval | Gold grade |
|                  |           |         |     |                 |             | m                                     | m      | m        | g/t Au     |
| HLDD0005         | 6,804,726 | 336,885 | 375 | -77 / 261       | 639.20      | 457.42                                | 459.00 | 1.58     | 2.2        |
|                  |           |         |     |                 |             | 471.62                                | 472.00 | 0.38     | 11.3       |
|                  |           |         |     |                 |             | 620.56                                | 621.40 | 0.84     | 4.8        |
| HLDD0006         | 6,804,427 | 337,089 | 375 | -65 / 292       | 751.50      | 221.00                                | 226.00 | 5.00     | 0.8        |
|                  |           |         |     |                 |             | 535.00                                | 537.00 | 2.00     | 1.6        |
|                  |           |         |     |                 |             | 549.57                                | 551.51 | 1.94     | 6.2        |
| <i>including</i> |           |         |     |                 |             | 550.00                                | 551.51 | 1.51     | 7.4        |
|                  |           |         |     |                 |             | 554.95                                | 560.98 | 6.03     | 6.0        |
|                  |           |         |     |                 |             | 560.00                                | 560.98 | 0.98     | 10.7       |
| <i>including</i> |           |         |     |                 |             | 719.00                                | 720.50 | 1.50     | 2.3        |
| <i>including</i> |           |         |     |                 |             | 719.00                                | 719.90 | 0.90     | 3.1        |
|                  |           |         |     |                 |             | 723.67                                | 724.50 | 0.83     | 2.6        |
| HLDD0007         | 6,804,427 | 337,089 | 375 | -70 / 239       | 777.60      | 481.00                                | 482.00 | 1.00     | 3.7        |
|                  |           |         |     |                 |             | 519.00                                | 520.62 | 1.62     | 2.8        |
| <i>including</i> |           |         |     |                 |             | 519.00                                | 520.04 | 1.04     | 3.7        |
|                  |           |         |     |                 |             | 568.00                                | 571.31 | 3.31     | 1.4        |
| <i>including</i> |           |         |     |                 |             | 570.84                                | 571.31 | 0.47     | 5.6        |
|                  |           |         |     |                 |             | 705.80                                | 707.00 | 1.20     | 4.4        |
|                  |           |         |     |                 |             | 710.00                                | 713.00 | 3.00     | 6.6        |
| <i>including</i> |           |         |     |                 |             | 710.00                                | 712.00 | 2.00     | 9.4        |
|                  |           |         |     |                 |             | 720.08                                | 723.50 | 3.42     | 3.9        |
| <i>including</i> |           |         |     |                 |             | 721.00                                | 723.50 | 2.50     | 4.6        |
|                  |           |         |     |                 |             | 739.20                                | 739.68 | 0.48     | 6.7        |
|                  |           |         |     |                 |             | 743.00                                | 745.00 | 2.00     | 2.4        |
| <i>including</i> |           |         |     |                 |             | 743.60                                | 744.06 | 0.46     | 4.4        |

**Table 6: Back Creek Aircore Significant Intercepts – West Wyalong, NSW**

| Hole Id          | North     | East    | RL  | Dip/<br>Azimuth | Total Depth | Down-hole<br>Mineralised Intersection |    |          |            |
|------------------|-----------|---------|-----|-----------------|-------------|---------------------------------------|----|----------|------------|
|                  | m         | m       | m   | degrees         | m           | From                                  | To | Interval | Gold grade |
|                  |           |         |     |                 |             | m                                     | m  | m        | ppb        |
| BKAC0057         | 6,243,148 | 534,205 | 220 | -60 / 090       | 88          | No Significant Results                |    |          |            |
| BKAC0058         | 6,243,166 | 534,107 | 220 | -60 / 090       | 68          | No Significant Results                |    |          |            |
| BKAC0059         | 6,243,183 | 534,008 | 220 | -60 / 090       | 56          | 38                                    | 43 | 5        | 1,329      |
| <i>including</i> |           |         |     |                 |             | 38                                    | 40 | 2        | 2,355      |
| BKAC0060         | 6,243,201 | 533,910 | 220 | -70 / 090       | 46          | 36                                    | 38 | 2        | 564        |
| BKAC0061         | 6,243,219 | 533,811 | 220 | -70 / 090       | 76          | No Significant Results                |    |          |            |
| BKAC0062         | 6,243,221 | 533,823 | 220 | -70 / 270       | 60          | No Significant Results                |    |          |            |
| BKAC0063         | 6,243,236 | 533,713 | 220 | -70 / 090       | 80          | 76                                    | 77 | 1        | 4,770      |
| BKAC0064         | 6,243,254 | 533,614 | 220 | -70 / 090       | 68          | No Significant Results                |    |          |            |
| BKAC0065         | 6,243,272 | 533,516 | 220 | -70 / 090       | 98          | No Significant Results                |    |          |            |
| BKAC0066         | 6,243,472 | 534,216 | 220 | -70 / 090       | 92          | No Significant Results                |    |          |            |
| BKAC0067         | 6,243,507 | 534,020 | 220 | -70 / 090       | 95          | No Significant Results                |    |          |            |
| BKAC0068         | 6,243,507 | 534,030 | 220 | -70 / 270       | 72          | No Significant Results                |    |          |            |
| BKAC0069         | 6,243,542 | 533,824 | 220 | -70 / 090       | 44          | No Significant Results                |    |          |            |
| BKAC0070         | 6,243,577 | 533,628 | 220 | -70 / 090       | 77          | 35                                    | 36 | 1        | 929        |
| BKAC0071         | 6,242,622 | 533,599 | 220 | -70 / 270       | 89          | No Significant Results                |    |          |            |
| BKAC0072         | 6,242,605 | 533,697 | 220 | -70 / 270       | 82          | No Significant Results                |    |          |            |
| BKAC0073         | 6,242,605 | 533,716 | 220 | -70 / 090       | 87          | No Significant Results                |    |          |            |
| BKAC0074         | 6,242,587 | 533,795 | 220 | -70 / 270       | 89          | 80                                    | 84 | 4        | 608        |
| BKAC0075         | 6,242,569 | 533,894 | 220 | -70 / 270       | 80          | No Significant Results                |    |          |            |
| BKAC0076         | 6,242,552 | 533,992 | 220 | -70 / 270       | 86          | No Significant Results                |    |          |            |
| BKAC0077         | 6,242,534 | 534,091 | 220 | -70 / 270       | 44          | No Significant Results                |    |          |            |
| BKAC0078         | 6,242,516 | 534,189 | 220 | -70 / 270       | 41          | No Significant Results                |    |          |            |
| BKAC0079         | 6,242,191 | 533,593 | 220 | -70 / 270       | 44          | No Significant Results                |    |          |            |

**Table 7: Simberi Diamond Drilling Significant Intercepts – Simberi Island, Papua New Guinea**

| Hole Id              | North   | East   | RL   | Dip/<br>Azimuth | Total<br>Depth | Lode     | Down-hole<br>Mineralised Intersection |       |          |               |
|----------------------|---------|--------|------|-----------------|----------------|----------|---------------------------------------|-------|----------|---------------|
|                      | m       | m      | m    | degrees         | m              |          | From                                  | To    | Interval | Gold<br>grade |
|                      |         |        |      |                 |                |          | m                                     | m     | m        | g/t Au        |
| SDH464 (Bekou South) | 206,695 | 44,049 | 12.1 | -60 / 229       | 27.0           | OX,TR,SU | 0                                     | 25.0  | 25.0     | 0.9           |
| <i>including</i>     |         |        |      |                 |                | SU       | 7.0                                   | 21.0  | 14.0     | 1.4           |
| SDH465 (Bekou South) | 206,695 | 44,050 | 12.1 | -61 / 233       | 61.0           | SU       | 10.0                                  | 25.0  | 15.0     | 2.2           |
| <i>including</i>     |         |        |      |                 |                | SU       | 10.0                                  | 16.0  | 6.0      | 4.5           |
| <i>including</i>     |         |        |      |                 |                | SU       | 15.0                                  | 16.0  | 1.0      | 17.3          |
| SDH466 (Bekou South) | 206,736 | 44,065 | 13.7 | -59 / 239       | 81.6           | OX       | 0.0                                   | 3.0   | 3.0      | 1.7           |
|                      |         |        |      |                 |                | TR,SU    | 15.0                                  | 46.0  | 31.0     | 2.1           |
| <i>including</i>     |         |        |      |                 |                | TR       | 25.0                                  | 29.0  | 4.0      | 5.2           |
| <i>and</i>           |         |        |      |                 |                | TR       | 34.0                                  | 35.0  | 1.0      | 5.6           |
| <i>and</i>           |         |        |      |                 |                | SU       | 43.0                                  | 45.0  | 2.0      | 6.6           |
| SDH467 (Andora)      | 207,526 | 45,195 | 10.2 | -61 / 359       | 50.0           | OX,TR    | 0.0                                   | 6.0   | 6.0      | 0.9           |
|                      |         |        |      |                 |                | SU       | 27.0                                  | 31.0  | 4.0      | 0.9           |
| SDH468 (Bekou South) | 206,766 | 44,067 | 20.6 | -60 / 240       | 101.0          | OX       | 2.0                                   | 5.0   | 3.0      | 1.0           |
|                      |         |        |      |                 |                | TR,SU    | 45.0                                  | 50.0  | 5.0      | 0.7           |
| SDH469 (Andora)      | 207,524 | 45,195 | 10.1 | -59 / 181       | 50.0           | OX,TR    | 0.0                                   | 7.0   | 7.0      | 0.9           |
|                      |         |        |      |                 |                | TR,SU    | 21.0                                  | 36.0  | 15.0     | 0.9           |
| <i>including</i>     |         |        |      |                 |                | SU       | 23.0                                  | 25.0  | 2.0      | 1.6           |
| <i>and</i>           |         |        |      |                 |                | SU       | 32.0                                  | 36.0  | 4.0      | 1.3           |
| SDH470 (Bekou South) | 206,794 | 44,061 | 27.5 | -60 / 239       | 110.0          | SU       | 27.0                                  | 29.0  | 2.0      | 6.8           |
| <i>including</i>     |         |        |      |                 |                | SU       | 28.0                                  | 29.0  | 1.0      | 11.8          |
|                      |         |        |      |                 |                | SU       | 46.0                                  | 74.0  | 28.0     | 1.3           |
| <i>including</i>     |         |        |      |                 |                | SU       | 61.0                                  | 67.0  | 6.0      | 4.2           |
| <i>including</i>     |         |        |      |                 |                | SU       | 65.0                                  | 66.0  | 1.0      | 16.6          |
|                      |         |        |      |                 |                | SU       | 88.0                                  | 90.0  | 2.0      | 1.8           |
| SDH471 (Bekou South) | 206,802 | 44,031 | 32.7 | -60 / 239       | 80.0           | SU       | 36.0                                  | 40.0  | 4.0      | 2.0           |
| SDH472 (Bekou West)  | 206,819 | 43,838 | 42.3 | 54 / 044        | 129.8          | SU       | 75.0                                  | 79.0  | 4.0      | 0.9           |
| <i>including</i>     |         |        |      |                 |                | SU       | 75.0                                  | 77.0  | 2.0      | 1.3           |
|                      |         |        |      |                 |                | SU       | 96.0                                  | 123.0 | 27.0     | 1.4           |
| <i>including</i>     |         |        |      |                 |                | SU       | 98.0                                  | 104.0 | 6.0      | 1.9           |
| SDH474 (Andora)      | 207,772 | 45,097 | 40.8 | -54 / 173       | 40.1           | OX,SU    | 3.0                                   | 14.0  | 11.0     | 1.1           |
| <i>including</i>     |         |        |      |                 |                | OX,SU    | 5.0                                   | 11.0  | 6.0      | 1.4           |
|                      |         |        |      |                 |                | SU       | 21.0                                  | 27.0  | 6.0      | 1.3           |
| <i>including</i>     |         |        |      |                 |                | SU       | 21.0                                  | 23.0  | 2.0      | 1.7           |

NOTES:

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

**Table 7 Continued: Simberi Diamond Drilling Significant Intercepts – Simberi Island, Papua New Guinea**

| Hole Id              | North   | East   | RL    | Dip/<br>Azimuth | Total<br>Depth | Lode     | Down-hole<br>Mineralised Intersection |      |          |               |
|----------------------|---------|--------|-------|-----------------|----------------|----------|---------------------------------------|------|----------|---------------|
|                      | m       | m      | m     | degrees         | m              |          | From                                  | To   | Interval | Gold<br>grade |
|                      | m       | m      | m     | degrees         | m              |          | m                                     | m    | m        | g/t Au        |
| SDH475 (Andora)      | 207,738 | 45,106 | 36.7  | -54 / 183       | 53.2           | SU       | 29.0                                  | 38.0 | 9.0      | 1.9           |
| SDH476 (Andora)      | 207,685 | 45,139 | 20.7  | -54 / 186       | 50.0           | OX,SU    | 8.0                                   | 42.0 | 34.0     | 1.4           |
| <i>including</i>     |         |        |       |                 |                | SU       | 36.0                                  | 42.0 | 6.0      | 3.5           |
| SDH478 (Andora)      | 207,557 | 45,251 | 8.5   | -59 / 002       | 59.5           | OX       | 1.0                                   | 5.0  | 4.0      | 0.8           |
| SDH479 (Trotsky)*    | 208,836 | 43,159 | 193.9 | -59 / 180       | 60.0           | -        | No Significant Results                |      |          |               |
| SDH480 (Trotsky)     | 208,884 | 43,201 | 193.7 | -60 / 223       | 62.5           | OX       | 3.0                                   | 7.0  | 4.0      | 1.7           |
| <i>including</i>     |         |        |       |                 |                | OX       | 3.0                                   | 6.0  | 3.0      | 2.1           |
| SDH481 (Trotsky)*    | 208,854 | 43,338 | 231.9 | -59 / 184       | 81.2           | OX       | 49.0                                  | 53.0 | 4.0      | 0.8           |
| SDH482 (Trotsky)     | 208,840 | 43,287 | 224.9 | -59 / 269       | 60.4           | OX,SU    | 19.0                                  | 33.0 | 14.0     | 3.9           |
| <i>including</i>     |         |        |       |                 |                | OX       | 19.0                                  | 20.0 | 1.0      | 7.3           |
| <i>and</i>           |         |        |       |                 |                | SU       | 23.0                                  | 24.0 | 1.0      | 5.1           |
| <i>and</i>           |         |        |       |                 |                | SU       | 31.0                                  | 33.0 | 2.0      | 5.6           |
| SDH483 (Trotsky)*    | 208,731 | 43,194 | 232.4 | -58 / 212       | 83.0           | OX,TR    | 66.0                                  | 70.0 | 4.0      | 0.7           |
|                      |         |        |       |                 |                | TR,SU    | 76.0                                  | 78.0 | 2.0      | 2.2           |
| SDH484 (Trotsky)*    | 208,895 | 43,357 | 221.3 | -60 / 212       | 60.0           | OX,TR    | 25.0                                  | 35.0 | 10.0     | 0.7           |
| SDH485 (Trotsky)*    | 208,879 | 43,305 | 202.4 | -59 / 119       | 80.3           | OX       | 19.0                                  | 32.0 | 13.0     | 0.5           |
|                      |         |        |       |                 |                | OX,SU    | 41.0                                  | 47.0 | 6.0      | 0.8           |
| <i>including</i>     |         |        |       |                 |                | OX       | 42.0                                  | 45.0 | 3.0      | 1.2           |
| SDH486 (Trotsky)*    | 208,891 | 43,300 | 197.0 | -59 / 212       | 60.2           | SU       | 28.0                                  | 34.0 | 6.0      | 2.6           |
| <i>including</i>     |         |        |       |                 |                | SU       | 31.0                                  | 34.0 | 3.0      | 4.3           |
| <i>including</i>     |         |        |       |                 |                | SU       | 32.0                                  | 33.0 | 1.0      | 9.0           |
| SDH487(PigicowWest)* | 207,947 | 43,516 | 170.1 | -60 / 002       | 60.0           | -        | No Significant Results                |      |          |               |
| SDH488(PigicowWest)* | 207,930 | 43,510 | 168.7 | -60 / 183       | 65.0           | -        | No Significant Results                |      |          |               |
| SDH489 (Andora)*     | 207,858 | 45,104 | 41.7  | -60 / 090       | 50.0           | OX,TR,SU | 0.0                                   | 19.0 | 19.0     | 0.6           |
| SDH490 (Andora)*     | 207,902 | 45,069 | 64.5  | -60 / 185       | 50.0           | -        | No Significant Results                |      |          |               |
| SDH491 (Andora)*     | 207,948 | 45,047 | 90.0  | -60 / 229       | 50.0           | OX,TR,SU | 5.0                                   | 13.0 | 8.0      | 1.5           |
| SDH492 (Andora)*     | 207,912 | 45,111 | 56.0  | -55 / 181       | 100.0          | SU       | 16.0                                  | 19.0 | 3.0      | 3.6           |
| <i>including</i>     |         |        |       |                 |                | SU       | 17.0                                  | 18.0 | 1.0      | 8.3           |
|                      |         |        |       |                 |                | SU       | 31                                    | 35   | 4.0      | 1.8           |
| SDH493 (Andora)*     | 207,904 | 45,072 | 64.8  | -55 / 044       | 45.1           | SU       | 23.0                                  | 45.1 | 22.1     | 0.9           |
| <i>including</i>     |         |        |       |                 |                | SU       | 28.0                                  | 30.0 | 2.0      | 1.2           |
| <i>and</i>           |         |        |       |                 |                | SU       | 36.0                                  | 40.0 | 4.0      | 1.4           |
| SDH494 (Pigicow)*    | 208,000 | 43,874 | 169.1 | -61 / 221       | 100.0          | SU       | 6.0                                   | 18.0 | 12.0     | 0.6           |

NOTES:

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

**Table 7 Continued: Simberi Diamond Drilling Significant Intercepts – Simberi Island, Papua New Guinea**

| Hole Id           | North   | East   | RL    | Dip/<br>Azimuth | Total<br>Depth | Lode  | Down-hole<br>Mineralised Intersection |      |          |               |
|-------------------|---------|--------|-------|-----------------|----------------|-------|---------------------------------------|------|----------|---------------|
|                   | m       | m      | m     | degrees         | m              |       | From                                  | To   | Interval | Gold<br>grade |
|                   | m       | m      | m     | degrees         | m              |       | m                                     | m    | m        | g/t Au        |
| SDH495 (Pigicow)* | 207,906 | 43,860 | 187.8 | -59 / 225       | 128.5          | OX,TR | 0.0                                   | 13.0 | 13.0     | 1.8           |
| <i>including</i>  |         |        |       |                 |                | OX    | 5.0                                   | 7.0  | 2.0      | 5.9           |
|                   |         |        |       |                 |                | TR    | 20.0                                  | 38.0 | 18.0     | 2.0           |
| <i>including</i>  |         |        |       |                 |                | TR    | 23                                    | 25   | 2.0      | 3.3           |
| <i>and</i>        |         |        |       |                 |                | TR    | 35.0                                  | 37.0 | 2.0      | 6.1           |
| SDH496 (Pigicow)* | 207,994 | 43,684 | 175.0 | -60 / 041       | 139.2          | SU    | 50.0                                  | 72.0 | 22.0     | 0.5           |
| <i>including</i>  |         |        |       |                 |                | SU    | 61.0                                  | 64.0 | 3.0      | 1.2           |

NOTES:

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

**Table 8: Simberi RC Significant Intercepts – Simberi Island, Papua New Guinea**

| Hole Id            | North   | East   | RL    | Dip/<br>Azimuth | Total<br>Depth | Lode     | Down-hole<br>Mineralised Intersection |    |          |               |
|--------------------|---------|--------|-------|-----------------|----------------|----------|---------------------------------------|----|----------|---------------|
|                    | m       | m      | m     | degrees         | m              |          | From                                  | To | Interval | Gold<br>grade |
|                    | m       | m      | m     | degrees         | m              |          | m                                     | m  | m        | g/t Au        |
| SRCH124 (Trotsky)* | 208,927 | 43,299 | 172.0 | -60 / 270       | 60.0           | OX       | 0                                     | 11 | 11.0     | 2.1           |
| <i>including</i>   |         |        |       |                 |                | OX       | 5                                     | 11 | 6.0      | 3.4           |
| <i>including</i>   |         |        |       |                 |                | OX       | 9                                     | 10 | 1.0      | 10.4          |
|                    |         |        |       |                 |                | OX,TR    | 19                                    | 27 | 8.0      | 0.9           |
|                    |         |        |       |                 |                | TR,SU    | 37                                    | 60 | 23.0     | 1.2           |
| <i>including</i>   |         |        |       |                 |                | SU       | 38                                    | 39 | 1.0      | 5.4           |
| <i>and</i>         |         |        |       |                 |                | TR,SU    | 43                                    | 51 | 8.0      | 1.6           |
| SRCH125 (Trotsky)* | 208,937 | 43,288 | 168.0 | -60 / 270       | 60.0           | OX,TR,SU | 6                                     | 43 | 37.0     | 1.9           |
| <i>including</i>   |         |        |       |                 |                | OX,TR,SU | 6                                     | 30 | 24.0     | 2.7           |
| <i>including</i>   |         |        |       |                 |                | OX       | 6                                     | 7  | 1.0      | 10.4          |
| <i>and</i>         |         |        |       |                 |                | SU       | 17                                    | 29 | 12.0     | 3.5           |
| <i>including</i>   |         |        |       |                 |                | SU       | 24                                    | 25 | 1.0      | 15.0          |
| <i>and</i>         |         |        |       |                 |                | SU       | 28                                    | 29 | 1.0      | 5.2           |
|                    |         |        |       |                 |                | TR,SU    | 49                                    | 57 | 8.0      | 1.4           |
| <i>including</i>   |         |        |       |                 |                | TR       | 49                                    | 51 | 2.0      | 4.4           |
| SRCH126 (Trotsky)* | 208,990 | 43,279 | 191.3 | -60 / 270       | 60.0           | -        | No Significant Results                |    |          |               |

NOTES:

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


**OLD SOUTH GWALIA– JORC Code, 2012 Edition – Table 1**
**Old South Gwalia - Section 1 Sampling Techniques and Data**

| Criteria   | Comments  |
|--|---|
| <b>Sampling Techniques</b>                                     | <ul style="list-style-type: none"> <li>Sampling boundaries are geologically defined and 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. Minimum sample length is 0.30 m.</li> </ul>   |
| <b>Drilling Techniques</b>                                     | <ul style="list-style-type: none"> <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>  |
| <b>Drill Sample Recovery</b>                                   | <ul style="list-style-type: none"> <li>Core is metre marked and orientated and checked against driller's blocks to ensure that any core loss is accounted for. Sample recovery for all 5 holes was 100%. Minor occurrences of core loss can in most instances be attributed to drilling conditions and not ground conditions.</li> </ul>  |
| <b>Logging</b>   | <ul style="list-style-type: none"> <li>All SBM holes are logged primarily for lithology, alteration and vein type/intensity which are key to modelling gold grade distributions. Validation of geological data is controlled via the use of library codes and reliability and consistency of data is monitored through regular peer review.</li> </ul>  |
| <b>Sub-sampling techniques and sample preparation</b>          | <ul style="list-style-type: none"> <li>SBM half core is cut using a core saw before being sent to an accredited lab (SGS laboratory in Kalgoorlie) where the entire sample is crushed to achieve particle size &lt;4mm followed by complete pulverisation (90% passing 75 <math>\mu</math>m).</li> </ul>  |
| <b>Quality of assay data and laboratory tests</b>              | <ul style="list-style-type: none"> <li>SBM samples were analysed for gold using fire assay with a 50g charge and analysis by flame Atomic Absorption Spectrometry (AAS). QC 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.</li> </ul> |
| <b>Verification of sampling and assay</b>                      | <ul style="list-style-type: none"> <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 and validated.</li> </ul>   |
| <b>Location of data points</b>                                 | <ul style="list-style-type: none"> <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>  |
| <b>Data spacing and distribution</b>                           | <ul style="list-style-type: none"> <li>Data spacing for underground resource definition is approximately 20m x 25m and surface drilling is approximately 60m x 80m. Drilling data is sufficient to establish continuity for all lodes.</li> </ul>   |
| <b>Orientation of data in relation to geological structure</b> | <ul style="list-style-type: none"> <li>All drill core is marked for orientation, and sampling is perpendicular to lode orientations and based on past production and underground mapping.</li> </ul>  |
| <b>Sample security</b>   | <ul style="list-style-type: none"> <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>   |
| <b>Audits or reviews</b>                                       | <ul style="list-style-type: none"> <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>  |





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

| Criteria  | Comments  |
|---|---|
| <b>Mineral Tenement and Land Tenure Status</b>                          | <ul style="list-style-type: none"> <li>The reported resource 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.</li> </ul>   |
| <b>Exploration Done by Other Parties</b>                                | <ul style="list-style-type: none"> <li>Pre-existing data in the area covered by this drilling is limited to face samples on historic development (pre-1963).</li> </ul>   |
| <b>Geology</b>  | <ul style="list-style-type: none"> <li>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 500m 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 above.</li> </ul> |
| <b>Drill Hole Information</b>   | <ul style="list-style-type: none"> <li>No exploration results are presented.</li> </ul>   |
| <b>Data Aggregation Methods</b>   | <ul style="list-style-type: none"> <li>No exploration results are presented.</li> </ul>   |
| <b>Relationship Between Mineralisation Widths and Intercept Lengths</b> | <ul style="list-style-type: none"> <li>No exploration results are presented.</li> </ul>   |
| <b>Diagrams</b>   | <ul style="list-style-type: none"> <li>No exploration results are presented</li> </ul>  |
| <b>Balanced Reporting</b>   | <ul style="list-style-type: none"> <li>No exploration results are presented</li> </ul>  |
| <b>Other Substantive Exploration Data</b>                               | <ul style="list-style-type: none"> <li>No exploration results are presented</li> </ul>  |
| <b>Further Work</b>   | <ul style="list-style-type: none"> <li>No further resource definition drilling is planned at this stage</li> </ul>  |

### Old South Gwalia - Section 3 Estimation and Reporting of Mineral Resources

| Criteria                                   | Comments   |
|--|--|
| <b>Database integrity</b>                  | <ul style="list-style-type: none"> <li>Data is captured through spread sheets and validated prior to loading into the SBM corporate database which ensures only valid non-overlapping data can be recorded. Assay and down hole survey data are subsequently merged electronically. All drill data is stored in an SQL database on secure company server. Validation of data included visual checks of hole traces, analytical and geological data and ad hoc validation of holes to original core photos and hard copy geological logs.</li> </ul>  |
| <b>Site visits</b>                         | <ul style="list-style-type: none"> <li>The Competent Person has visited site</li> </ul>  |
| <b>Geological interpretation</b>           | <ul style="list-style-type: none"> <li>Mineralisation domains are defined by abundance of quartz and quartz/carbonate veining, the presence of distinctive laminated veining (quartz/sericite/sulphides +/- au), strong potassic alteration, abundance of sulphides (commonly &gt;3% pyrite) and elevated gold grade (&gt;0.5g/t Au).</li> </ul>   |
| <b>Dimensions</b>                          | <ul style="list-style-type: none"> <li>Mineralisation strikes at approximately 170 degrees over a distance of 160ms and dip to the east 40 degrees. Mineralisation is conformable with the foliation of the Mine Sequence mafic schists. Individual lodes have an average horizontal width of 15m</li> </ul>   |
| <b>Estimation and modelling techniques</b> | <ul style="list-style-type: none"> <li>Gold grade was estimated using ordinary kriging with a parent cell size of 4mE x 8mN x 4mRL. The same approach has been used for the SGS lodes within Gwalia Deeps</li> <li>Estimation was completed using Datamine Studio RM</li> <li>Search parameters are as follows: <ul style="list-style-type: none"> <li>South Gwalia Series 1 – Rotation Azimuth = 348 degrees, Dip = 45 degrees, Pitch = 110 degrees. Max search distances = 145m. Major/Semi-Major anisotropy = 1.5; Major/Minor = 4.1. Min samples = 8, max samples =20</li> <li>South Gwalia Series 2 – Rotation Azimuth = 348 degrees, Dip = 45 degrees, Pitch = 120 degrees. Max search distances = 170m. Major/Semi-Major anisotropy = 1.4; Major/Minor = 6.8. Min samples = 8, max samples =20</li> <li>West Lode – Rotation Azimuth = 350 degrees, Dip = 45 degrees, Pitch = 90 degrees. Max search distances = 180m. Major/Semi-Major anisotropy = 1.3; Major/Minor = 7.2. Min samples = 8, max samples =20</li> </ul> </li> <li>Isolated high grade composites were top cut prior to estimation (cut to 67g/t Au)</li> <li>The model was validated by plotting composite and block model average values against Northing and RL for gold.</li> <li>The model was internally peer reviewed</li> </ul> |
| <b>Moisture</b>                            | <ul style="list-style-type: none"> <li>Tonnages are estimated on a dry basis</li> </ul>  |
| <b>Cut-off parameters</b>                  | <ul style="list-style-type: none"> <li>The model is reported at a cut-off of 2.5g/t Au</li> </ul>  |



| Criteria  | Comments  |
|---|---|
| <b>Mining factors or assumptions</b>              | <ul style="list-style-type: none"> <li>The mining method is underground, open stoping with paste fill.</li> </ul>   |
| <b>Metallurgical factors or assumptions</b>       | <ul style="list-style-type: none"> <li>Metallurgical recovery has been proven to be consistently &gt;95%</li> </ul>   |
| <b>Environmental factors or assumptions</b>       | <ul style="list-style-type: none"> <li>The project covers an area that has been previously impacted by mining. The tenement area includes existing ethnographic heritage sites. SBM have undertaken extensive Aboriginal Heritage Surveys within the tenements and management measures are in place.</li> </ul>   |
| <b>Bulk density</b>                               | <ul style="list-style-type: none"> <li>A bulk density of 2.78g/cm<sup>3</sup> has been applied to the SGS lodes 2.75 g/cm<sup>3</sup> to West Lode and 2.79 g/cm<sup>3</sup> to the mine schist</li> </ul>  |
| <b>Classification</b>                             | <ul style="list-style-type: none"> <li>The resource is classified as a function of drill spacing, geological continuity and mining. Areas where grade control drilling has been completed to 20m x 30m and geological continuity has been established through mining are classified as Measured. Areas where drill density is 30m x 40m, 60m x 80m or less with high geological continuity are classified as Indicated and elsewhere where drill density is sparse classified as Inferred.</li> </ul> |
| <b>Audits or reviews</b>                          | <ul style="list-style-type: none"> <li>No audits or external reviews have been completed. This resource model has been completed using similar techniques applied for the estimation of SGS lodes in Gwalia Deeps</li> </ul>  |
| <b>Discussion of relative accuracy/confidence</b> | <ul style="list-style-type: none"> <li>The resource estimate is a global estimate.</li> </ul>   |

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

##### Contents

|                             |  |
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| <b>Tower Hill Drilling:</b> | Section 1 Sampling Techniques and Data<br>Section 2 Reporting of Exploration Results |
| <b>Harbour Lights</b>       | Section 1 Sampling Techniques and Data<br>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   |
|---|--|
| <b>Sampling techniques</b>                            | <ul style="list-style-type: none"> <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 pulverising the entire sample to &lt;75µm.</li> </ul> |
| <b>Drilling techniques</b>                            | <ul style="list-style-type: none"> <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 utilised by Topdrill to complete the drilling.</li> </ul>  |
| <b>Drill sample recovery</b>                          | <ul style="list-style-type: none"> <li>Core is metre marked and orientated and checked against drillers blocks to ensure that any core loss is accounted for.</li> <li>Significant core loss is only encountered in the upper weathered portions of holes. Sample recovery in fresh rock is rarely less than 100%. Where minor core loss does occur in fresh rock, it is due to drilling conditions and not ground conditions.</li> </ul>  |
| <b>Logging</b>  | <ul style="list-style-type: none"> <li>All SBM holes are logged primarily for lithology, alteration and vein type/intensity which are key to modelling gold grade distributions. Validation of geological data is controlled via the use of library codes and reliability and consistency of data is monitored through regular peer review.</li> <li>All logging is quantitative where possible and qualitative elsewhere.</li> <li>A photograph is taken of every core tray (wet).</li> </ul>   |
| <b>Sub-sampling techniques and sample preparation</b> | <ul style="list-style-type: none"> <li>SBM half core is cut using a core saw before being sent to SGS laboratory in Kalgoorlie where the entire sample is crushed to achieve particle size &lt;3mm followed by complete pulverisation (90% passing 75 µm).</li> </ul>  |



| Criteria   | Commentary   |
|--|--|
| <b>Quality of assay data and laboratory tests</b>              | <ul style="list-style-type: none"> <li>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>   |
| <b>Verification of sampling and assaying</b>                   | <ul style="list-style-type: none"> <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>   |
| <b>Location of data points</b>                                 | <ul style="list-style-type: none"> <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 10m intervals utilising a north seeking Axis gyro system.</li> </ul> |
| <b>Data spacing and distribution</b>                           | <ul style="list-style-type: none"> <li>Drilling targeted gaps within the resource model and was not designed on a regular pattern.</li> </ul>  |
| <b>Orientation of data in relation to geological structure</b> | <ul style="list-style-type: none"> <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 -90 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>   |
| <b>Sample security</b>   | <ul style="list-style-type: none"> <li>Only Company personnel or approved contractors are 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>  |
| <b>Audits or reviews</b>                                       | <ul style="list-style-type: none"> <li>Logging and sampling data was peer reviewed in-house by SBM Senior Geologists.</li> </ul>   |

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

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

| Criteria  | Commentary  |
|---|---|
| <b>Mineral tenement and land tenure status</b>                          | <ul style="list-style-type: none"> <li>SBM has 100% ownership of tenement M37/0055, M37/0251, M37/0622 and P37/8734 in which the drilling was completed.</li> </ul>   |
| <b>Exploration done by other parties</b>                                | <ul style="list-style-type: none"> <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 80 m.</li> </ul>   |
| <b>Geology</b>  | <ul style="list-style-type: none"> <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>   |
| <b>Drill hole Information</b>   | <ul style="list-style-type: none"> <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>   |
| <b>Data aggregation methods</b>   | <ul style="list-style-type: none"> <li><b>Above 300 metres below surface:</b> down hole intercepts are reported as length weighted averages using a cut-off of 0.5 g/t Au and minimum gram metre value of 2gmpt. Higher grade intercepts are reported using a lower cut-off of 2.5 g/t Au and a minimum gram metre value of 2 gmpt.</li> <li><b>Beneath 300 metres below surface:</b> down hole intercepts are reported as length weighted averages using a cut-off of 1.0 g/t Au and minimum gram metre value of 2gmpt. Higher grade intercepts are reported using a lower cut-off of 2.5 g/t Au and a minimum gram metre value of 2 gmpt.</li> <li>No high grade cut is applied and grades are reported to one decimal figure.</li> </ul> |
| <b>Relationship between mineralisation widths and intercept lengths</b> | <ul style="list-style-type: none"> <li>The orientation of mineralisation is well known and therefore drilling has been designed to intersect at angles perpendicular to mineralisation.</li> </ul>  |
| <b>Diagrams</b>   | <ul style="list-style-type: none"> <li>Appropriate diagrams are included within the body of the report.</li> </ul>  |
| <b>Balanced reporting</b>   | <ul style="list-style-type: none"> <li>Details of all holes material to Exploration Results have been reported in the intercept table.</li> </ul>   |



| Criteria                                  | Commentary   |
|---|--|
| <b>Other substantive exploration data</b> | <ul style="list-style-type: none"> <li>Data is included in the body of the report.</li> </ul>                          |
| <b>Further Work</b>                       | <ul style="list-style-type: none"> <li>Further resource definition and exploration drill holes are planned.</li> </ul> |

### **Harbour Lights Drilling - Section 1 Sampling Techniques and Data**

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

| Criteria   | Commentary  |
|--|---|
| <b>Sampling techniques</b>                                     | <ul style="list-style-type: none"> <li>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 PQ, 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 pulverising the entire sample to &lt;75µm.</li> </ul> |
| <b>Drilling techniques</b>                                     | <ul style="list-style-type: none"> <li>Diamond drill holes were commenced using HQ (63.5mm) or PQ (85mm) diameter core.</li> <li>Once ground conditions allowed, holes reduced to NQ2 (50.6mm) diameter core</li> <li>Core was orientated using an Boart Longyear TruCore core orientation system.</li> <li>A Sandvik diamond drill rig was utilised by Topdrill to complete the drilling.</li> </ul>   |
| <b>Drill sample recovery</b>                                   | <ul style="list-style-type: none"> <li>Core is metre marked and orientated and checked against drillers blocks to ensure that any core loss is accounted for.</li> <li>Significant core loss is only encountered in the upper weathered portions of holes. Sample recovery in fresh rock is rarely less than 100%. Where minor core loss does occur in fresh rock, it is due to drilling conditions and not ground conditions.</li> </ul>   |
| <b>Logging</b>   | <ul style="list-style-type: none"> <li>All SBM holes are logged primarily for lithology, alteration and vein type/intensity which are key to modelling gold grade distributions. Validation of geological data is controlled via the use of library codes and reliability and consistency of data is monitored through regular peer review.</li> <li>All logging is quantitative where possible and qualitative elsewhere.</li> <li>A photograph is taken of every core tray (wet).</li> </ul>  |
| <b>Sub-sampling techniques and sample preparation</b>          | <ul style="list-style-type: none"> <li>SBM half core is cut using a core saw before being sent to SGS laboratory in Kalgoorlie where the entire sample is crushed to achieve particle size &lt;4mm followed by complete pulverisation (90% passing 75 µm).</li> <li>SGS Kalgoorlie transferred pulps to SGS Perth for multi element testwork.</li> </ul>  |
| <b>Quality of assay data and laboratory tests</b>              | <ul style="list-style-type: none"> <li>Samples were analysed for gold using fire assay with a 50g charge and analysis by flame Atomic Absorption (FAA505) Spectrometry (AAS).</li> <li>Samples were analysed for arsenic, iron and sulphur using Aqua Regia digest with ICP-MS Finish</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>  |
| <b>Verification of sampling and assaying</b>                   | <ul style="list-style-type: none"> <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>  |
| <b>Location of data points</b>                                 | <ul style="list-style-type: none"> <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 10m intervals utilising a north seeking Axis gyro system.</li> </ul>  |
| <b>Data spacing and distribution</b>                           | <ul style="list-style-type: none"> <li>Drilling targeted gaps within the resource model and was not designed on a regular pattern.</li> </ul>   |
| <b>Orientation of data in relation to geological structure</b> | <ul style="list-style-type: none"> <li>The stratigraphy strikes NNW-SSE and dips approximately 40 degrees to the east.</li> <li>Planned drill hole dips ranged from -60 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>   |
| <b>Sample security</b>   | <ul style="list-style-type: none"> <li>Only Company personnel or approved contractors are 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>   |
| <b>Audits or reviews</b>                                       | <ul style="list-style-type: none"> <li>Logging and sampling data was peer reviewed in-house by SBM Senior Geologists.</li> </ul>  |



### Harbour Lights Drilling - Section 2 Reporting of Exploration Results

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

| Criteria  | Commentary  |
|---|---|
| <b>Mineral tenement and land tenure status</b>                          | <ul style="list-style-type: none"> <li>SBM has 100% ownership of tenements M37/0251 in which the drilling was completed.</li> </ul>   |
| <b>Exploration done by other parties</b>                                | <ul style="list-style-type: none"> <li>Numerous shallow workings exist in the project area.</li> <li>Exploration activities including RAB drilling, RC Drilling, DD Drilling, soil sampling and geophysics by groups such as Esso, Carr-Boyd Minerals, Ashton Mining and Sons of Gwalia.</li> <li>Carr-Boyd Minerals commenced open pit mining of the deposit in 1985 with mining finishing in 1993.</li> </ul>   |
| <b>Geology</b>  | <ul style="list-style-type: none"> <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 within potassic altered ultramafic schist with high quantities of contorted quartz carbonate veining and is strongly related to arsenopyrite content.</li> </ul>   |
| <b>Drill hole Information</b>   | <ul style="list-style-type: none"> <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>   |
| <b>Data aggregation methods</b>   | <ul style="list-style-type: none"> <li><b>Above 300 metres below surface:</b> down hole intercepts are reported as length weighted averages using a cut-off of 0.5 g/t Au and minimum gram metre value of 2gmpt. Higher grade intercepts are reported using a lower cut-off of 2.5 g/t Au and a minimum gram metre value of 2 gmpt.</li> <li><b>Beneath 300 metres below surface:</b> down hole intercepts are reported as length weighted averages using a cut-off of 1.0 g/t Au and minimum gram metre value of 2gmpt. Higher grade intercepts are reported using a lower cut-off of 2.5 g/t Au and a minimum gram metre value of 2 gmpt.</li> <li>No high grade cut is applied and grades are reported to one decimal figure.</li> </ul> |
| <b>Relationship between mineralisation widths and intercept lengths</b> | <ul style="list-style-type: none"> <li>The orientation of mineralisation is well known and therefore drilling has been designed to intersect at angles perpendicular to mineralisation.</li> </ul>  |
| <b>Diagrams</b>   | <ul style="list-style-type: none"> <li>Appropriate diagrams are included within the body of the report.</li> </ul>  |
| <b>Balanced reporting</b>   | <ul style="list-style-type: none"> <li>Details of all holes material to Exploration Results have been reported in the intercept table.</li> </ul>   |
| <b>Other substantive exploration data</b>                               | <ul style="list-style-type: none"> <li>Data is included in the body of the report.</li> </ul>   |
| <b>Further Work</b>   | <ul style="list-style-type: none"> <li>Further resource definition and exploration drill holes are planned.</li> </ul>  |



## Back Creek – JORC Code, 2012 Edition – Table 1

### Contents

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

### Drilling - Section 1 Sampling Techniques and Data

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

| Criteria  | Commentary   |
|---|--|
| <b>Sampling techniques</b>                            | <ul style="list-style-type: none"> <li>A single PCD/diamond holes was drilled on EL 8530. PCD mud spoil of cover and saprolite to 99m was not sampled. HQ3 core was obtained from 99m to 111.2 m. No further drilling was possible due to rods being bogged and drilling abandoned. The small interval of core has not been sampled.</li> <li>Aircore drill holes were spaced at 100 to 200m intervals on 4 lines. Three Aircore drill lines were completed and a single abandoned hole on a fourth line.</li> <li>Aircore samples were collected from a rig-mounted cyclone via a green plastic bags and were then placed directly on the ground in neat rows of twenty (depending on hole depth).</li> <li>Drill spoil was sampled with a spear to 4m composite samples of approximately 1.5 kg. 4m composites returning significant Au grades &gt; 0.200 ppm Au were resampled as 1m splits.</li> <li>The Aircore composites and 1m splits were submitted to ALS Orange and transported to ALS Adelaide where they were sorted and dried, crushed to 10 mm and pulverised to -75 µm. Batches comprising 25 g charges of pulverised samples were then forwarded to ALS Perth to be digested with aqua regia with a gold analysis by ICP-MS to a detection limit of 1 ppb. The same digested sample was 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, Tl, U, V, W, Y, Zn, Zr by ICPAES (ALS technique TL43 MEPKG).</li> <li>The EOH Aircore samples, were submitted to ALS Orange and on-forwarded to ALS Adelaide for preparation and were prepared in the same manner as the composites. Analyses were conducted in Perth on a 25 g charge of pulverised sample which was then digested with aqua regia with a gold analysis by ICP-MS to a detection limit of 1 ppb. A second charge was digested via multi acid digestion with HF and analysed for 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, Tl, U, V, W, Y, Zn &amp; Zr by ICAES &amp; ICPMS. ALS also analysed the EOH Aircore samples with a hyperspectral device using technique HYP-PKG.</li> </ul> |
| <b>Drilling techniques</b>                            | <ul style="list-style-type: none"> <li>Rotary PCD was carried out using a 5 inch PCD bit. Diamond coring was carried out using an HQ3 triple tube barrel and bit. Drilling was carried out by BG Drilling using a Hydropower Explorer 850H multi-purpose truck-mounted rig.</li> <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 BG Drilling, who utilised a track mounted Hanjin 8D Aircore rig.</li> </ul>   |
| <b>Drill sample recovery</b>                          | <ul style="list-style-type: none"> <li>Sample recoveries and condition (wet/dry) were routinely recorded.</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>  |
| <b>Logging</b>  | <ul style="list-style-type: none"> <li>All drill holes were logged in full for lithology, alteration, weathering/regolith and colour.</li> <li>Aircore and diamond logging was both qualitative and quantitative.</li> </ul>   |
| <b>Sub-sampling techniques and sample preparation</b> | <ul style="list-style-type: none"> <li>Aircore samples were collected as both dry and wet samples using a spear tool.</li> <li>All composite samples were sorted, dried, crushed and pulverised to produce a 25g charge prior to digestion.</li> <li>Aircore samples were collected at 1m intervals and composited in 4m samples using a scoop to sample individual metre samples. 1m re-split samples were collected using a scoop.</li> <li>QC procedures for composite sampling involved the insertion of certified reference material and blanks at ratios of 1:50.</li> <li>ALS inserted certified standards, replicates and lab repeats.</li> </ul>  |
| <b>Quality of assay data and laboratory tests</b>     | <ul style="list-style-type: none"> <li>The Aircore 4m composite and 1m re-split samples used a 25 g charge with an aqua regia digest which was considered appropriate for analysis of the regolith dominated sample medium.</li> <li>Certified reference material was inserted into the sample stream at a ratio of 1:50.</li> <li>Field blanks were inserted at a ratio of 1:50.</li> <li>ALS inserted certified standards, replicates and lab repeats.</li> </ul>  |
| <b>Verification of sampling and assaying</b>          | <ul style="list-style-type: none"> <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 geologist.</li> <li>No adjustments to assay data were made.</li> </ul>   |
| <b>Location of data points</b>                        | <ul style="list-style-type: none"> <li>Prior to drilling, all holes were marked out using a handheld GPS with ±3m 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 or abandoned DDH hole.</li> <li>All locations were captured in MGA94 zone 55 grid.</li> </ul>   |
| <b>Data spacing and distribution</b>                  | <ul style="list-style-type: none"> <li>Aircore drill holes were spaced at 100m to 200m intervals on four drill lines.</li> </ul>   |





| Criteria   | Commentary  |
|--|---|
| <b>Orientation of data in relation to geological structure</b> | <ul style="list-style-type: none"> <li>The abandoned PCD/diamond holes was oriented -60/270 perpendicular to a north-south oriented dioritic intrusion.</li> <li>Aircore drill holes BKAC0057 - 59 were angled at -60/270 but due to ground conditions this was steepened to -70/270 for holes BKAC0060 – 79. Drill azimuths were largely perpendicular to sedimentary stratigraphy.</li> </ul> |
| <b>Sample security</b>   | <ul style="list-style-type: none"> <li>Only trained and experienced contractors and company personnel were allowed to collect the samples; all samples were held within a secure company location before dispatch to ALS in Orange for registration of samples prior to forwarding to ALS Adelaide for preparation and subsequent on-forwarding ALS Perth for analyses..</li> </ul>             |
| <b>Audits or reviews</b>                                       | <ul style="list-style-type: none"> <li>No audits or reviews of sampling protocols have been completed.</li> </ul>   |

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

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

| Criteria  | Commentary   |
|---|--|
| <b>Mineral tenement and land tenure status</b>                          | <ul style="list-style-type: none"> <li>SBM has 100% ownership of the two tenements comprising the Back Creek Project. These comprise EL8214 and EL8530.</li> </ul>   |
| <b>Exploration done by other parties</b>                                | <ul style="list-style-type: none"> <li>There have been numerous historical holders of the project area which covers over ~245 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> |
| <b>Geology</b>  | <ul style="list-style-type: none"> <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>  |
| <b>Drill hole Information</b>   | <ul style="list-style-type: none"> <li>Drill hole information for holes returning significant results have been reported in the intercept table. Included in the intercept table 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. Metres below surface (mbs) for intercepts were calculated for the start of the intercept.</li> </ul>   |
| <b>Data aggregation methods</b>   | <ul style="list-style-type: none"> <li>Broad down hole intercepts in aircore holes were reported as length weighted averages using a cut-off of 500 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>       |
| <b>Relationship between mineralisation widths and intercept lengths</b> | <ul style="list-style-type: none"> <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>  |
| <b>Diagrams</b>   | <ul style="list-style-type: none"> <li>No diagrams shown in this report.</li> </ul>  |
| <b>Balanced reporting</b>   | <ul style="list-style-type: none"> <li>Details of all holes material to Exploration Results have been reported in the intercept table.</li> </ul>  |
| <b>Other substantive exploration data</b>                               | <ul style="list-style-type: none"> <li>Included in the body of the report.</li> </ul>  |
| <b>Further work</b>   | <ul style="list-style-type: none"> <li>Further exploration surface sampling and Aircore drilling has not yet been planned.</li> </ul>  |



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

**Contents**

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

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

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

| Criteria  | Commentary  |
|---|---|
| <b>Sampling techniques</b>                            | <ul style="list-style-type: none"> <li>Diamond Drilling comprised HQ3 (61.1mm) sized core drilled 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>RC drilling comprised 3 ½ inch diameter drill string with 114mm hammer drill bit size. Sample is collected via a linatex lined, variable height fixed cone splitter with three outlets. One metre samples are collected in both plastic green bags and a split sample for assay to a calico bag.</li> </ul>  |
| <b>Drilling techniques</b>                            | <ul style="list-style-type: none"> <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 completed by a KL150 RC drill rig using 3 ½ inch diameter drill string and 114mm hammer drill bit size. Drilling was completed by Quest Exploration Drilling (QED).</li> </ul>  |
| <b>Drill sample recovery</b>                          | <ul style="list-style-type: none"> <li>Diamond drilling recovery percentages were measured by comparing actual metres recovered per drill run versus metres recorded 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 samples are generated via the rigs cyclone splitter system and collected in calico bags. Regular inspections of the cyclone ensure it is level and free from loose material and blockages. The cyclone is cleaned at the addition of a new rod (every 6m). When samples are wet they are collected in a 20 litre bucket, the water is decanted and the sample transferred to the calico bag.</li> </ul>   |
| <b>Logging</b>  | <ul style="list-style-type: none"> <li>Diamond and RC 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>All holes are logged in their entirety and data recorded in templated excel workbook.</li> </ul>   |
| <b>Sub-sampling techniques and sample preparation</b> | <ul style="list-style-type: none"> <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>RC samples are generated via the rigs cyclone splitter system and collected in calico bags. Regular inspections of the cyclone ensure it is level and free from loose material and blockages. The cyclone is cleaned at the addition of a new rod (every 6m). When samples are wet they are collected in a 20 litre bucket, the water is decanted and the sample transferred to the calico bag.</li> <li>All exploration diamond drill samples are prepared at the company's on-site sample preparation facility. Preparation involves drying, jaw crush to 70% passing -6mm and pulverise in LM2 to a minimum 85% passing - 75µm.</li> <li>Selected 200g pulp samples are sent to ALS Laboratory in Townsville for assay. Pulp residues are stored in Townsville for six months following assay.</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> |



| Criteria   | Commentary  |
|--|---|
| <b>Quality of assay data and laboratory tests</b>              | <ul style="list-style-type: none"> <li>All diamond and RC drill hole pulp samples associated with the St Barbara exploration are first assayed at the on-site laboratory. Preliminary gold analysis is complete at the Simberi Lab using Aqua Regia digestion with a 25g charge and analysis by Atomic Absorption Spectrometry (AAS).</li> <li>Pulp samples are then on-sent to ALS Townsville for final analysis. Pulps are 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>Dependent on the stage of exploration and other material data 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>QC included insertion of certified reference material (1:20); insertion of in-house blank control material (2 at the start of each job); 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> <li>Over the duration of the quarter St Barbara inserted OREAS standards 256, 262, 503d, 254b and 254 as matched to material type and grade approximation.</li> </ul> |
| <b>Verification of sampling and assaying</b>                   | <ul style="list-style-type: none"> <li>Sampling data is recorded electronically which ensures only valid non-overlapping data can be recorded. Assay and downhole survey data are subsequently merged electronically. All drill data is stored in a SQL database on secure company server. No twin holes have been completed.</li> </ul>  |
| <b>Location of data points</b>                                 | <ul style="list-style-type: none"> <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> </ul>  |
| <b>Data spacing and distribution</b>                           | <ul style="list-style-type: none"> <li>Exploration diamond 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 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>   |
| <b>Orientation of data in relation to geological structure</b> | <ul style="list-style-type: none"> <li>Where surface mapping and sampling has contributed to understanding of outcropping geological structures, drilling, and sampling has been undertaken orthogonal to the mapped structure.</li> </ul>  |
| <b>Sample security</b>   | <ul style="list-style-type: none"> <li>Only company personnel or approved contractors are allowed on drill sites; drill core is only removed from drill site to secure core logging/processing facility within the gated exploration core yard; core is promptly logged, cut, and prepped on site. The samples sent to ALS are stored in locked and guarded storage facilities until receipted at the Laboratory.</li> </ul>  |
| <b>Audits or reviews</b>                                       | <ul style="list-style-type: none"> <li>No audits or reviews of sampling protocols have been completed.</li> </ul>   |

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

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

| Criteria                                       | Commentary   |
|--|--|
| <b>Mineral tenement and land tenure status</b> | <ul style="list-style-type: none"> <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>   |
| <b>Exploration done by other parties</b>       | <ul style="list-style-type: none"> <li>CRA, BHP, Tabar JV (Kennecott, Nord Australer 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>   |
| <b>Geology</b>                                 | <ul style="list-style-type: none"> <li>The Simberi gold deposits are low sulphidation, intrusion related adularia-sericite epithermal gold deposits. The dominant host rocks for mineralisation are andesites, volcanoclastics and lesser porphyries. Gold mineralisation is generally associated with sulphides or iron oxides occurring within a variety of fractures, such as simple fracture in-fills, single vein coatings and crackle brecciation in the more competent andesite units, along andesite/polymict breccia contact margins as well as sulphide disseminations.</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 both shallow oxide residuum and epithermal sulphide gold potential.</li> </ul> |
| <b>Drill hole Information</b>                  | <ul style="list-style-type: none"> <li>Drill hole information is included in intercept table outlining collar position obtained by DGPS pickup, hole dip and azimuth acquired from a downhole surveying camera as discussed in section 1, composited mineralised intercepts lengths and depth as well as hole depth.</li> </ul>  |



| Criteria  | Commentary   |
|---|--|
| <b>Data aggregation methods</b>   | <ul style="list-style-type: none"> <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, minimum width of 2m, and a minimum grade*length of 2.5gmpt (gram metre per tonne). Such intercepts may include material below cut-off but no more than 5 sequential metres of such material and except where the average drops below the cut-off. Supplementary cut-offs, of 2.5g/t Au, 5.0g/t Au and 10g/t Au, may be used to highlight higher grade zones and spikes within the broader aggregated interval. Single assays intervals are reported only where <math>\geq 5.0\text{g/t Au}</math> and <math>\geq 1\text{m}</math> down hole.</li> <li>Core loss is assigned the same grade as the sample grade; no high-grade cut is applied; grades are reported to one decimal figure and no metal equivalent values are used for reporting exploration results.</li> </ul> |
| <b>Relationship between mineralisation widths and intercept lengths</b> | <ul style="list-style-type: none"> <li>Down hole length was reported for all holes; true width was not known as the orientation of the orebody is not fully understood.</li> <li>Simberi lodes display high variability in orientation and complex geometries as a result of the interplay of veining, brecciation intensity, host lithology and oxidation fronts.</li> </ul>  |
| <b>Diagrams</b>   | <ul style="list-style-type: none"> <li>Diagrams when included, show all drill holes material and immaterial to Exploration Results.</li> </ul>   |
| <b>Balanced reporting</b>   | <ul style="list-style-type: none"> <li>Details of all holes material to Exploration Results will be reported in intercept tables.</li> </ul>   |
| <b>Other substantive exploration data</b>                               | <ul style="list-style-type: none"> <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>  |
| <b>Further work</b>   | <ul style="list-style-type: none"> <li>Included in the body of the report.</li> </ul>  |