

10 December 2025

# Feasibility Study confirms Simberi as a High-Quality, Long-Life, Low-Cost Asset

*Low capital intensity and competitive AISC with a 13 year Life of Mine*

## Highlights

- Mineral Resource Estimate has increased by 0.9 Moz of gold and 2.8 Moz of silver<sup>1</sup>
- Total gold production of **2.1 Moz** (Q2 FY26 – FY39)
- Annual production initially rising to above **200 kozpa from FY29**
- Post Tax NPV<sub>8</sub> of **US\$1,023M** and IRR of **79%** at US\$3,000/oz gold & US\$30/oz silver
- Post Tax NPV<sub>8</sub> of **US\$1,811M** and IRR of **243%** at US\$4,000/oz gold & US\$50/oz silver
- All-in Sustaining Cost (AISC) decreasing to **US\$1,100 – US\$1,400/oz range from FY29 to FY36**
  - Now incorporating cost of proposed enhanced royalty package to landowners and communities<sup>2</sup>
- Initial Project Capital estimated at **US\$275 million (+15/-10% Class 3 Estimate<sup>3</sup>) across FY26 to FY28**
  - Based on a maximum rate of 3.5Mtpa for production of saleable gold concentrates
- Pre-Expansion Growth Capital of further **US\$50 million – US\$70 million across FY26 to FY27**
- Simberi Expansion Project Life Of Mine Plan (LOMP) extends to **13 years**
  - High confidence production profile with 100% of LOMP gold production based on Ore Reserve (43% Proved and 57% Probable)
  - **No Exploration Targets** included, leaving upside from Mineral Resource conversion, further exploration and Exploration License potential
- Final Investment Decision (FID) target of Q3 FY26 subject to ML Extension grant date

St Barbara Limited (“**St Barbara**” or the “**Company**”) (ASX: SBM) is pleased to advise the outcomes of its Simberi Expansion Project Feasibility Study (“**Feasibility Study**”) including an updated Mineral Resource and Ore Reserve estimate to support the latest Life of Mine Plan (“**LOMP**”).

Managing Director and CEO Andrew Strelein said “*Our Feasibility work demonstrates that the Simberi Expansion Project is developing into a highly compelling opportunity to generate real value for St Barbara shareholders.*”

*“Simberi will be a low capital intensity brownfields development, taking advantage of existing infrastructure to realise the value from this high quality resource at a globally competitive operating cost.”*

*“The study shows gold production averaging above 200 kozpa over nine years, at a low operating cost and with a mine life extending to 13 years – without including any mineral resource conversion or exploration targets. At an assumed*

<sup>1</sup> The Mineral Resources estimate uses a gold price of US\$2,500/oz and silver price of US\$25/oz compared to US\$2,000/oz gold and US\$20/oz silver previously

<sup>2</sup> Refer to ASX announcement dated 9 December 2024 titled “*Simberi ML early renewal progress and Kumul MOU*”

<sup>3</sup> The process plant/infrastructure build which makes up \$246M is a Class 3 estimate. The remaining \$28M is the pre-construction of the Waste Rock Dumps, sediment ponds and the process water pond which are a lower level of estimate for which a 30% contingency has been applied.

gold price of only US\$3,000/oz, our work suggests a Post-Tax NPV (8%) of US\$1,023 million and a Post-Tax IRR of 79%.”

*“The additional work that we have carried out in the Feasibility Study has delivered consistent outcomes in terms of the expected capital and operating cost profiles and I commend the team for the quality of the work from Concept Study through Pre-Feasibility and Feasibility Study. We can now look forward to a long mine life, with opportunities to extend.”*

## OVERVIEW

The Feasibility Study for the Simberi Expansion Project has been completed on schedule. The estimate meets AACE Class 3 requirements<sup>4</sup> and is assessed to have an accuracy of -10/+15%<sup>5</sup>. The LOMP is based solely on Proved and Probable Ore Reserves referred to in the Mineral Resource and Ore Reserve estimate updated in this announcement and presented along with the results of the Feasibility Study.

The Feasibility Study was undertaken by **Pitch Black Group (Pitch Black)**. The mine planning component of the study was undertaken by **AMC Consultants Pty Ltd (AMC)**, including the Ore Reserves estimation.

During the completion of the Feasibility Study, **Klohn Crippen Berger (KCB)** progressed the completion of the Waste Rock Dump (WRD) designs and **Engeny** continued with developing the plans for management of water (including management of surface water flows, water balance and water quality) to support the completion of environmental permit conditions. The WRD design bill of quantities have been used to estimate the WRD construction costs and the conceptual drainage design bill of quantities have been used to estimate the costs for the drainage and construction of the sediment and process water ponds.

The Simberi Expansion Project involves an expansion of the existing Simberi mining and processing operation to allow the treatment of fresh sulphide ore. Mining is scheduled to increase to approximately 20Mtpa of material from the current rate of 10Mtpa. Mining will transition from delivery of oxidised ore, which is free-milling, and currently recovered as gold doré through the conventional Carbon-In-Leach (CIL) and electrowinning circuit, to fresh ore which requires an upgrade to the comminution circuit (to manage the more competent ore) and installation of a flotation circuit to generate a gold-bearing concentrate. The flotation tailings (non-sulphides) will continue to be leached through the existing CIL circuit to recover a small proportion of gold not captured in the gold concentrate.

<sup>4</sup> Refer to AACE International's recommended practices relating to cost estimate classification and estimate accuracy as applied in Engineering, Procurement, and Construction for the Process Industries.

<sup>5</sup> The process plant/infrastructure build which makes up \$246M is a Class 3 estimate. The remaining \$28M is the pre-construction of the Waste Rock Dumps (WRDs), sediment ponds and the process water pond which are a lower level of estimate for which a 30% contingency has been applied.

Figure 1 shows the latest infrastructure design from the Feasibility Study. Aside from the modifications to the process plant described above, the expansion also includes the installation of additional power generation and the construction of a new wharf to accommodate larger ships to transport the gold bearing concentrates to third parties.

**Figure 1: Simberi Expansion Project Process Plant Layout Design**



**Simberi Expansion Project LOMP Economics**

A summary of the Simberi Expansion Project LOMP estimated economics commencing from 1 October 2025 is listed in Tables 1-1 to 1-4 and shown graphically in the figures below.

The combination of Pre-Expansion Growth Capital and Project Initial Capital are estimated to achieve the modifications required to convert to the production of a saleable gold concentrate from processing of sulphides (while retaining oxide CIL treatment capability), the installation of additional power generation and the construction of the new wharf.

For capital cost and operating cost purposes the power generation is assumed to be owned and operated by Simberi Gold Company Limited. For capital and operating cost purposes the mine fleet was assumed by AMC to be procured under operating leases with lease payments included in mine operating expenditures rather than being included in Sustaining Capital or other capital lines. The current mine fleet is a mix of contract fleet, owned fleet and leased fleet.

**Table 1-1: LOMP Project Economics (from 1 Oct 2025)**

Project Economics	Unit	Life of Mine (LOM) Total or Average
Gold Price	US\$/oz	\$3,000
Cash Costs <sup>6</sup>	US\$/oz Au	\$1,276
All-In Sustaining Cost <sup>7</sup>	US\$/oz Au	\$1,330
Post-Tax NPV (8%)	US\$M	\$1,023
Post-Tax IRR	%	79%
Post-Tax Payback	years	3.5
Post-Tax NPV/Capex Ratio	-	3.1

**Table 1-2: LOMP Production Summary (from 1 October 2025)**

Production Summary	Unit	Life of Mine Total or Average
Processing Life	years	13
Total Waste Mined	Mt	107.1
Total Ore Mined	Mt	45.1
Average Strip Ratio	w:o	2.4
Total Mill Feed Tonnes	Mt	43.2
Average Oxide Mill Gold Feed Grade	g/t	1.1
Average Sulphide Mill Gold Feed Grade	g/t	2.1
Average Mill Feed Gold Grade	g/t	1.8
Total Contained Gold	koz	2,466
Produced Gold (Doré & Gold in Concentrate)	koz	2,135
Gold Payable	koz	1,968
Average Gold Concentrate Grade	g/t	18.8

**Table 1-3: LOMP Capital Costs (from 1 October 2025)**

Capital Costs	Life of Mine Total
	US\$M
Pre-expansion Growth Capital	\$59
Project Initial Capital	\$275
LOM Growth Capital	\$29
Sustaining Capital	\$116
Closure Costs	\$75

<sup>6</sup> Cash costs consist of mining costs, processing costs, general and administrative costs and refining/transport charges and royalties.

<sup>7</sup> All-In Sustaining Costs include cash costs plus sustaining capital.

**Table 1-4: LOMP Operating Costs (from 1 October 2025)**

Operating Costs	Unit	Life of Mine (LOM) Average
Mining Cost	US\$/t mined	\$4.2
Mining Cost	US\$/t milled	\$16.3
Processing Cost (Inc TC/RC)	US\$/t milled	\$31.6
G&A Cost	US\$/t milled	\$9.4
Corporate G&A Cost	US\$/t milled	\$0.5
<b>Total Operating Cost</b>	<b>US\$/t milled</b>	<b>\$57.8</b>

The mid-points of the gold production ranges for the Simberi Expansion Project LOMP are shown in Figure 2 below. Also included is the AISC projection (using the mid-point of the ranges for each year).

The project economics incorporate the proposed enhanced Net Profits Royalty of 10% (or 3% Net Smelter Return if higher) announced on 9 December 2024 into the AISC projections, as it was for the Pre-Feasibility Study economics.

**Figure 2: Simberi Expansion Project LOMP Gold Production and All-in Sustaining Costs (US\$/oz)**

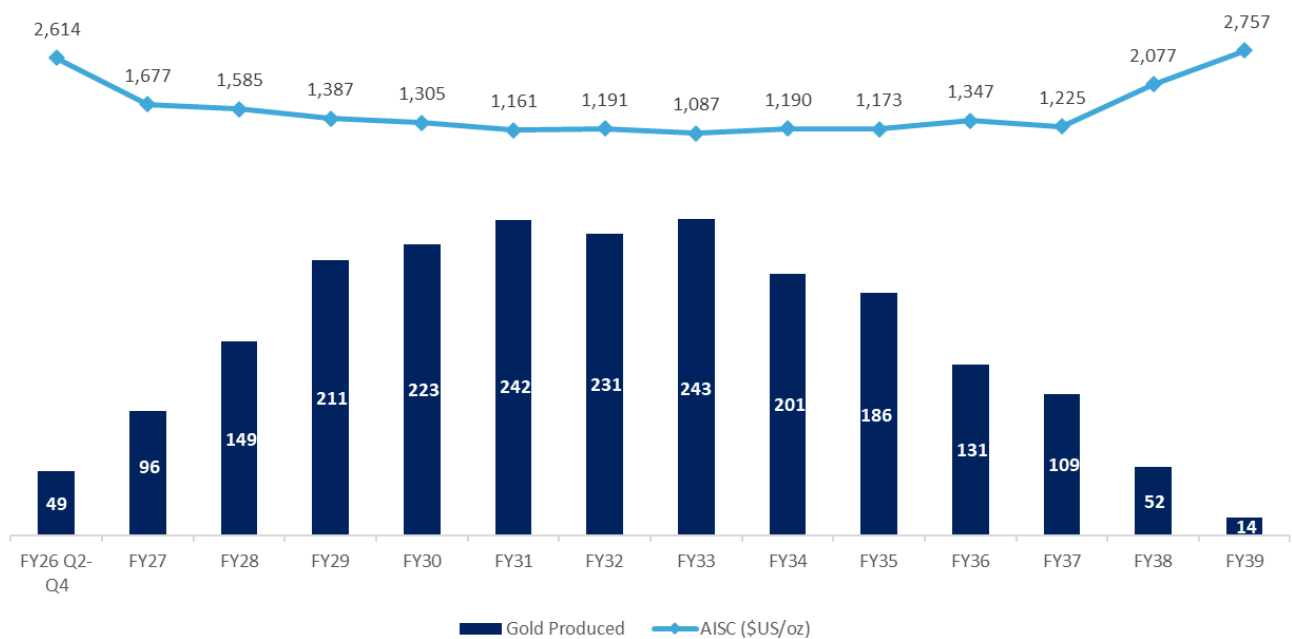


Table 2 below outlines ranges and approximate mid-points for each financial year of the Simberi Expansion Project LOMP covering gold production, C1 Cash Cost, AISC and Growth Capital

**Table 2: Simberi Expansion Project LOMP production, C1 Cash Cost per Ounce, AISC per Ounce and Growth Capital**

	Unit	Q2-Q4 FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37	FY38	FY39	Total/Average
<b>Production Range</b>	koz	45-55	90-100	140-160	200-220	210-230	230-250	220-240	230-250	190-210	180-200	120-140	100-120	60-70	10-20	140-160
<b>Production <sup>8</sup> Midpoint</b>	koz	49	96	149	211	223	242	231	243	201	186	131	109	52	14	2,135
<b>Gold Payable Midpoint</b>	koz	49	96	139	190	205	220	212	223	183	169	107	109	52	14	1,968
<b>Cash/oz Range</b>	US\$/oz	2,420-2,620	1,570-1,770	1,440-1,640	1,230-1,430	1,150-1,350	1,010-1,210	1,040-1,240	940-1,140	1,030-1,230	1,010-1,210	1,160-1,360	1,020-1,220	1,980-2,180	2,660-2,860	1,180-1,380
<b>Cash/oz Midpoint</b>	US\$/oz	2,520	1,673	1,537	1,325	1,253	1,113	1,141	1,040	1,133	1,112	1,262	1,123	2,077	2,757	1,276
<b>AISC/oz Range</b>	US\$/oz	2,510-2,710	1,580-1,780	1,480-1,680	1,290-1,490	1,210-1,410	1,060-1,260	1,090-1,290	990-1,190	1,090-1,290	1,070-1,270	1,250-1,450	1,130-1,330	1,980-2,180	2,660-2,860	1,230-1,430
<b>AISC/oz Midpoint</b>	US\$/oz	2,614	1,677	1,585	1,387	1,305	1,161	1,191	1,087	1,190	1,173	1,347	1,225	2,077	2,757	1,330
<b>Pre-Expansion Growth Capital Range</b>	US\$M	30-45	20-25													50-70
<b>Pre-Expansion Growth Capital Midpoint</b>	US\$M	37	22													59
<b>Project Initial Capital Range</b>	US\$M	40-50	170-215	40-50												250-315
<b>Project Initial Capital Midpoint</b>	US\$M	42	187	45												275
<b>LOMP Growth Capital Range</b>	US\$M				5-10	20-25										25-35
<b>LOMP Growth Capital Midpoint</b>	US\$M				8	20										29

<sup>8</sup> All-in Sustaining Cost (AISC) is based on per ounce produced.



## Sensitivity Analysis

A sensitivity analysis was conducted on the base case after-tax Net Present Value (NPV) and Internal Rate of Return (IRR) of the Simberi Expansion Project LOMP. Tables 3 and 4 below provide a summary using the following variables: gold price, project capital expenditure, total operating cost.

**Table 3: Post-Tax NPV (8%) Sensitivity, US\$M**

Gold Price (US\$/oz)	Base Case	Project Capex (-10%)	Project Capex (+10%)	Opex (-10%)	Opex (+10%)
\$2,500	634	657	611	733	533
\$2,750	829	852	806	928	730
\$3,000	1,023	1,046	1,000	1,121	925
\$3,250	1,216	1,239	1,193	1,312	1,119
\$3,500	1,407	1,430	1,385	1,503	1,311

**Table 4: Post-Tax IRR Sensitivity**

Gold Price (US\$/oz)	Base Case	Project Capex (-10%)	Project Capex (+10%)	Opex (-10%)	Opex (+10%)
\$2,500	47%	52%	43%	56%	40%
\$2,750	62%	69%	56%	73%	53%
\$3,000	79%	90%	71%	92%	68%
\$3,250	100%	117%	88%	118%	86%
\$3,500	128%	155%	110%	154%	109%

## Next Steps

The key near term steps for St Barbara to progress the Simberi Expansion Project to enable first sulphide processing and to switch over to the production and sale of gold concentrate include:

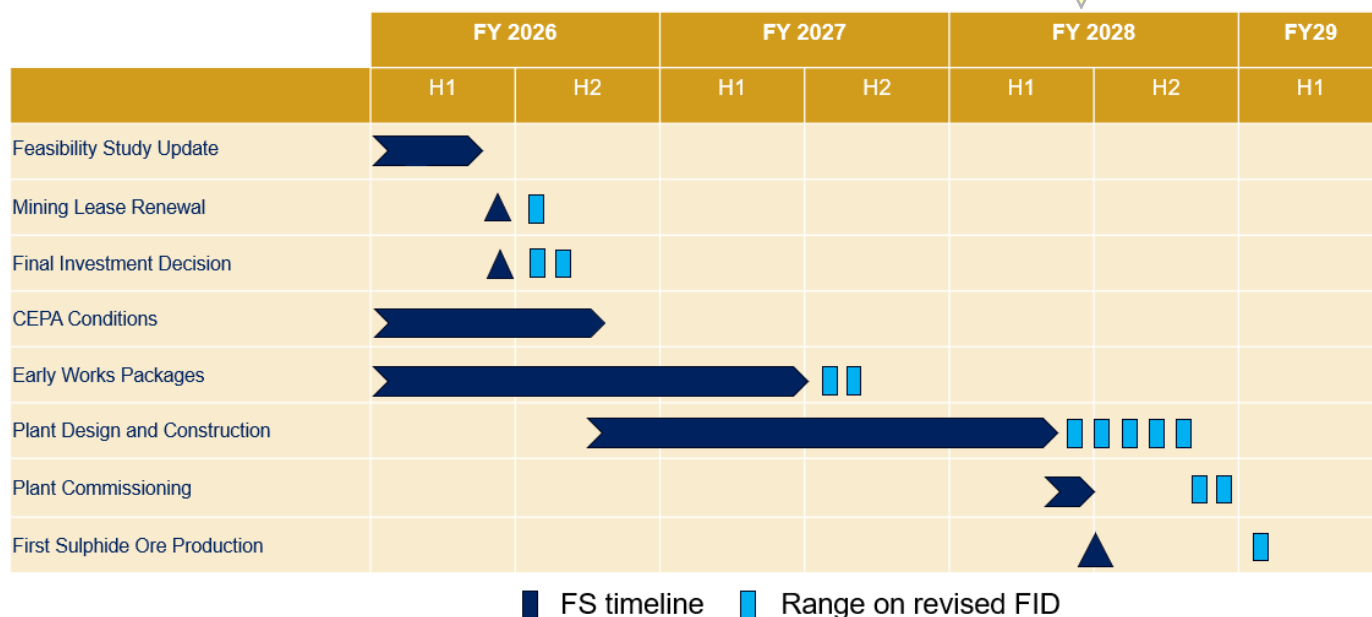
- Confirm Mining Lease Extension;
- Continue with the execution of abovementioned the Early Works Packages and Pre-Expansion Growth capital projects;
- FID based upon an Initial Life of Mine Plan and Construction Work Program and Budget to be developed based on the Feasibility Study but updated for the timeline following Mining Lease Extension confirmation; and
- Continue with completion of work specified by Conservation and Environmental Protection Authority (CEPA) under permit approvals.

At the time the mine planning work commenced for the Feasibility Study the FID date was anticipated to be in Q2 FY26. As communicated in previous ASX releases, most recently in the Q1 FY26 quarterly report, delays with the resolution of the amended income tax and withholding tax assessments and Mining Lease Extension have subsequently impacted the expected timing for project financing and therefore the anticipated FID date. This FID date is now anticipated to be in Q3 FY26, subject to receipt of the Mining Lease extension approval.

Figure 3 shows the timeline from the Feasibility Study which had anticipated the ball mill commissioning at the end of Q2 FY27 (allowing higher processing rates for oxide feed) and float plant commissioning in mid Q2 FY28. With an FID date now anticipated in Q3 FY26, it is anticipated that the ball milling commissioning and float plant commissioning dates will extend out to late Q3 FY27 and Q4 FY28 respectively.



**Figure 3: Indicative Timeline of Major Milestones for the Simberi Expansion Project**



## Comparison to the Pre-Feasibility Study Results

Tables 5 through 8 below provide a detailed comparison of the Feasibility Study (FS) outcomes as compared to the Pre-Feasibility Study (PFS) released earlier this year in April 2025. Overall the two studies provide very similar results as described in the relevant sections below.

**Physicals:** A decision was made to remove some open pit areas (namely Bekou, Patan and parts of Pigicow, Samat and Sorowar) from the mine plan where they sit outside currently disturbed catchments, to focus the detailed surface water management, sediment management and mine closure planning to a manageable area for permitting preparation. These areas are not sterilised and provide an early opportunity to further extend mine life once those detailed design works can be completed at a later date. The reduction in inventory from these areas was partially offset by an increase in the Ore Reserves price from (US\$1,800/oz FY26-FY28, US\$1,700/oz FY28+ in the PFS to US\$2,000/z throughout). The increase in gold price resulted in a slight lowering of cut-off grade which is reflected in the slightly lower feed grade to the plant (0.1g/t) and concentrate grade (0.5g/t) in the FS outcomes. There is also an additional three months of mining depletion (30 September reporting for the FS vs 1 July for the PFS). The net result is a reduction of 114koz (4%) in contained ounces processed in the FS production over the mine life.

**Table 5: Mining and Processing Physicals comparison Feasibility Study vs Pre-Feasibility Study**

Production Summary	Unit	Feasibility Study	Pre-Feasibility Study	Variance
Total Waste Mined	Mt	107.1	114.9	(7.8)
Total Ore Mined	Mt	45.1	41.8	3.3
Total Tonnes Mined	Mt	152.2	156.6	(4.4)
Average Strip Ratio	w:o	2.4	2.8	(0.4)
Total Mill Feed Tonnes	Mt	43.2	41.8	1.4
Average Oxide Mill Gold Feed Grade	g/t	1.1	1.2	(0.1)
Average Sulphide Mill Gold Feed Grade	g/t	2.1	2.2	(0.1)
Average Mill Feed Gold Grade	g/t	1.8	1.9	(0.1)
Total Contained Gold	koz	2,466	2,580	(114.0)
Produced Gold (Doré & Gold in Concentrate)	koz	2,135	2,209	(74.0)
Gold Payable	koz	1,968	2,047	(79.0)
Average Gold Concentrate Grade	g/t	18.8	19.3	(0.5)





**Capital:** Total capital has increased \$20M or 1% from \$458M to \$478M. The net increase overall was driven by some additions to scope for in the pre-expansion capital and the addition of a firewater system and loaders into the project initial estimate. Within the capital categories there was movement between the project initial, post growth and sustaining capital areas. Project initial capital increased by \$39M due to the secondary sizer and pebble crusher being brought forward from post-commissioning growth capital (as had been assumed in the PFS), as well as the full costs for the waste dump construction coming forward from sustaining capital (i.e. it was previously assumed some of the waste dump construction would occur after first concentrate production).

**Table 6: Capital Costs comparison Feasibility Study vs Pre-Feasibility Study**

Capital Costs	Feasibility Study US\$M	Pre-Feasibility Study US\$M	Variance US\$M	Comments
<b>Pre-expansion Growth Capital</b>	<b>59</b>	<b>48</b>	<b>11</b>	Addition of Volvo truck purchases, increase in RO plant cost, new site items: 4WD buses, SAG mill optimisation unit, SAG girth gear, DSTP anchoring, delay of detox
Project Initial Capital - PP & Infra	246	228	18	Post-Growth Capex brought forward - Secondary Sizer, Pebble Crusher. Include Firewater system and Loaders
Project Initial -Waste Dumps & Ponds	28	7	21	Original estimate of \$31M now \$28M. Previously most was in sustaining capex
<b>Project Initial Capital - Total</b>	<b>275</b>	<b>235</b>	<b>39</b>	Increase from post-growth and waste dump construction brought forward
<b>Post Growth Capital</b>	<b>29</b>	<b>43</b>	<b>(15)</b>	Bring forward Sizer and Crusher
<b>Sustaining Capital</b>	<b>116</b>	<b>131</b>	<b>(15)</b>	Waste Dump construction brought forward into Project Initial Capex
<b>Total Capex</b>	<b>478</b>	<b>458</b>	<b>20</b>	Extra pre-expansion capex, firewater system and loaders
<b>Closure Costs</b>	<b>75</b>	<b>75</b>	<b>-</b>	No Change

**Operating Costs:** Operating costs reduced by US\$0.82/t milled or 4% from the PFS work. Mining costs increased slightly due to incorporation of higher drill and blast estimates from the FS fragmentation study. Processing costs improved due to some additional work on reagent optimisation conducted between the PFS and FS. General and Administration costs increased following an update of the underlying site costs from the FY25 to FY26 budget and there was a slight reduction in the estimate for corporate support.

**Table 7: Operating Costs comparison Feasibility Study vs Pre-Feasibility Study**

Operating Costs	Units	Feasibility Study US\$/t	Pre-Feasibility Study US\$/t	Variance US\$/t	Comments
Mining	\$/t milled	16.31	15.91	0.40	Increase D&B costs to reflect fragmentation study
Processing	\$/t milled	31.60	33.48	(1.88)	Reduction in reagents consumption
G&A	\$/t milled	9.39	8.23	1.16	Change from FY25 to FY26 budget reflecting some higher spend on support departments
Corporate	\$/t milled	0.47	0.97	(0.50)	Reduction in corporate support forecast
<b>Total</b>	<b>\$/t milled</b>	<b>57.77</b>	<b>58.59</b>	<b>(0.82)</b>	



## Early Works Progress

### Grinding Circuit

The new 5.8MW ball mill ordered in March 2025 remains on schedule and is anticipated to be ready for shipment in January 2026.

Power demand will increase from the current 7MW to 20MW as a result of the expansion. The next key item required for the project, before the grinding circuit can be commissioned, is to increase the power station capacity (including redundancy) from 10MW to 25MW. The power station has been tendered and submissions received.

### New Wharf

Assessment of tenders for the new wharf to accommodate larger ships has progressed. A contract for this work will be ready for execution in Q3 FY26.

## Pre-Expansion Growth

### Camp Expansion

The Simberi camp expansion was 79% complete at the end of November 2025. There are 140 of the 340 new beds completed and in use. The next block containing 60 beds is due for completion in coming weeks. Other building works completed to date includes new offices for safety and training, environmental and mine technical services offices, an emergency response facility and a new Flexible Open and Distance Education school. Construction of a new kitchen and eating hall is well underway.

**Figure 4: New Environment and Mine Technical Services Office**



### Additional New Mining Fleet

Simberi is currently operating with ten Volvo A60s as part of the refresh of mining equipment. A further six trucks are scheduled to arrive the end of FY26.



## **Haul Road**

Ore delivery from the mine to the processing plant is currently by an Aerial Rope Conveyor (ARC). The ARC transects the planned future open pit mining area and will be decommissioned in advance of development of the main orebody at Pigiput. The removal of the ARC pylons will also expose additional remnant oxide ore for current operations through FY27 as well as expose deeper Sulphide ore on the north-eastern side of the pit.

In preparation for the decommissioning of the ARC, a new dedicated haul road will be established which will connect the Pigiput pit directly to the new ROM pad (refer to Figure 5).

A geotechnical investigation program has been completed and the final design near completion.

## **Reverse Osmosis (“RO”) Plant**

The RO Plant required for the sulphide ore treatment flowsheet is being installed at the process plant ahead of time. This will deliver improved water quality for the gland water system and the elution circuit. Improved gland water will substantially improve slurry pump reliability and, in turn, overall plant availability. Improved water quality will also increase the efficiency of gold stripping in the elution circuit and the performance of the electrowinning circuit. The RO Plant will benefit both the current oxide and future sulphide ore processing and so has been accelerated. The plant will arrive in Q3 FY26 and installation and commissioning are also planned in Q3 or early Q4 FY26.



## Simberi Expansion LOMP Overview

### Mining

Mining has been determined to be a continuation of current operations, utilising conventional drill and blast and load haul using 120 tonne excavators (Hitachi EX1200s) and phasing in larger 55 tonne payload Volvo A60 model articulated dump trucks. The current fleet is primarily a mix of 35-40 tonne payload articulated trucks (predominantly CAT 740/745s and Rokbak RA40s). There are six main open pit deposits planned to be mined (refer to Figure 5) – Pigiput, Sorowar, Pigibo, Botlu, Samat and Pigicow. Pigiput is the dominant ore source over the LOMP contributing approximately 65% of gold production, followed by Sorowar at 9%, Pigibo at 8% and the remaining pits making up the balance of 18%.

Mining under the LOMP is expected to extend for 10 years to 2035 (FY36), peaking at 21.0Mtpa of ore and waste in FY29. Three years of rehandling ore are then anticipated to continue to feed the process plant through to 2038 (Q1 FY39). Obviously this is subject to further upside from mine life extensions.

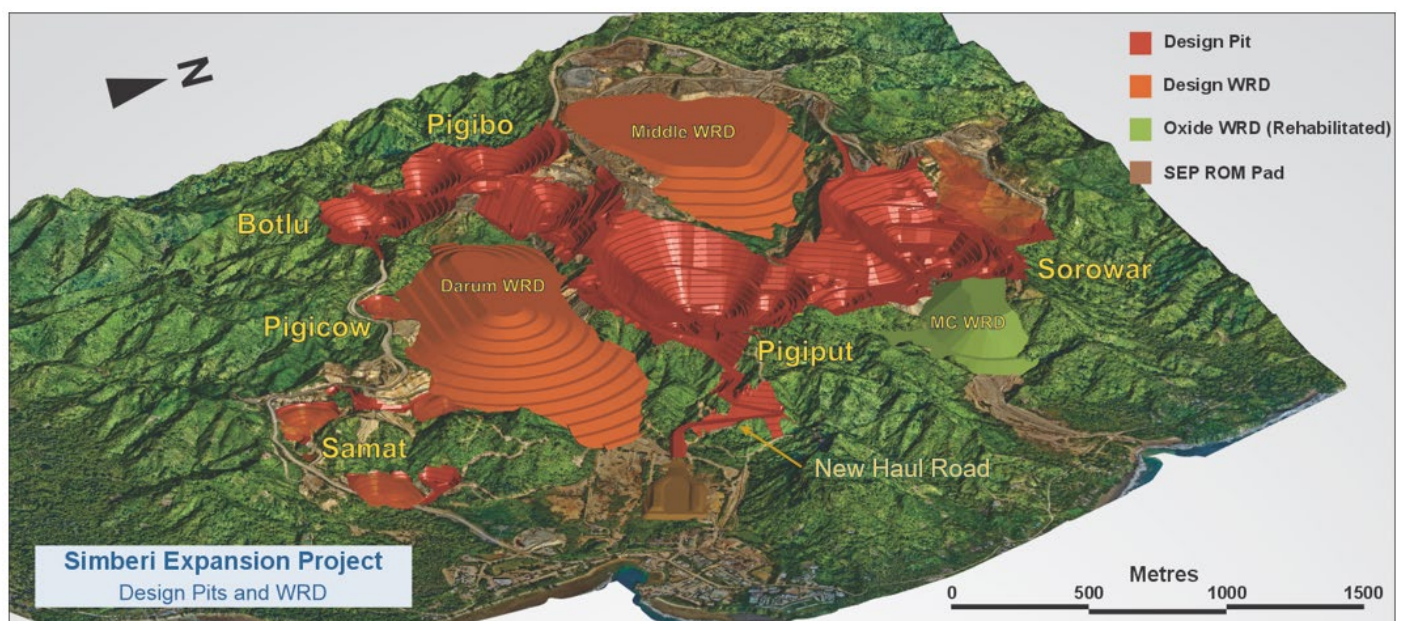
Waste rock from the mining operations is planned to be placed predominantly in two large waste dumps (Middle and Darum) with waste also intended to be placed into Sorowar and Samat pits. The waste rock dump designs recently completed by KCB are shown in Figure 5.

Waste rock has been characterised into potentially acid-forming (PAF) and non-acid forming (NAF) on the basis of the degree of sulphide mineralisation and carbonate material present. The resource model has classified 71% of the waste as PAF. To reduce acid formation the waste dumps are planned to be covered with a low oxygen ingress layer and progressively revegetated.

Figure 5 also shows the planned rehabilitation of the historical “MC Dump” captured within the rehabilitation and closure cost estimate.

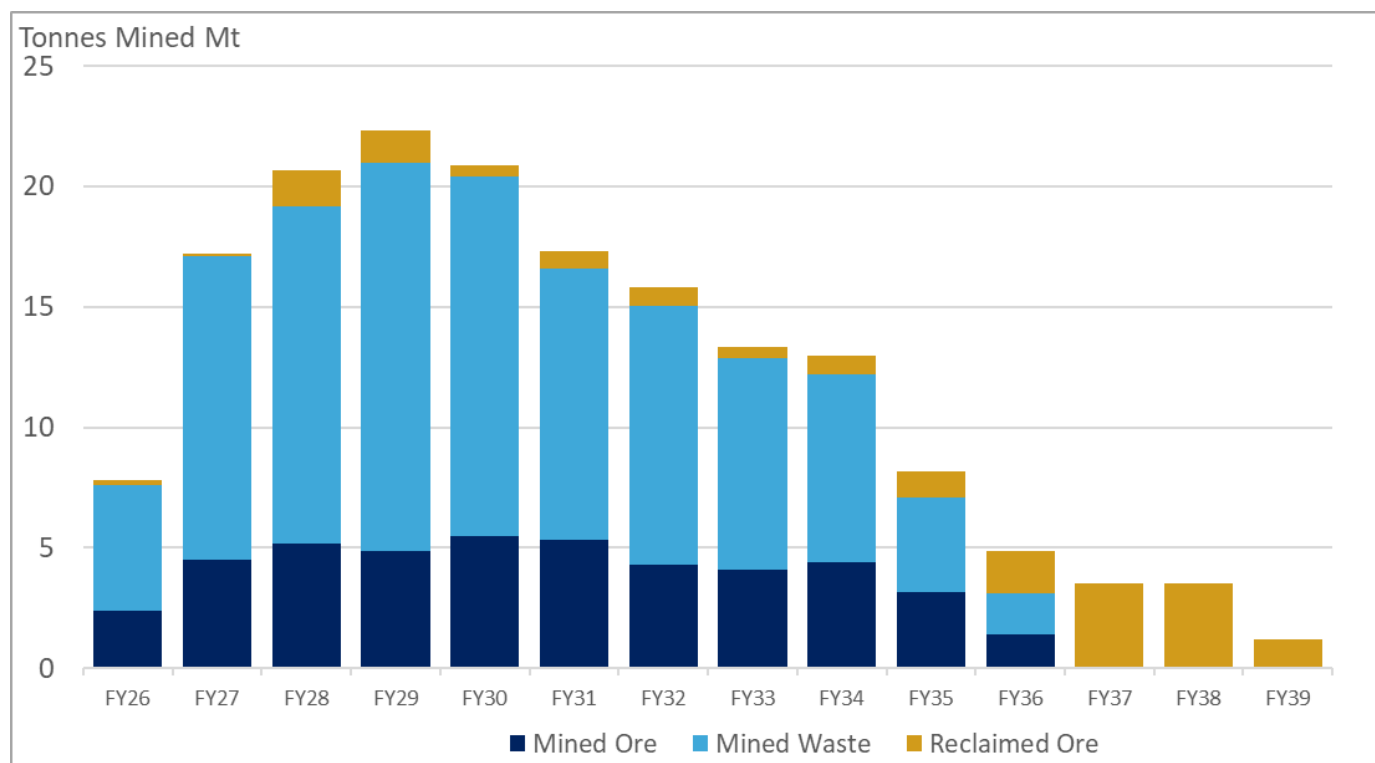
Ore will be trucked directly to the new ROM pad via a newly established haul road as discussed above.

**Figure 5: LOMP Pit Designs, Waste Rock Landforms and New Haul Road**





**Figure 6: LOMP Annual Mining Material Movement**



### Process Plant

The updated process flowsheet from the Feasibility Study is shown in Figure 7. The block flow diagram shows how the new or modified parts of the circuit are to be incorporated into the existing processing plant facility. Two new sizers will be purchased to perform in a primary and secondary crushing capacity complementing the sizer (currently installed in front of the ARC) which will be relocated to the new ROM pad to operate as a back-up unit. Secondary crushing is required to ensure that the target SAG feed size is achieved for all ores. Ore will be conveyed and placed on the Crushed Ore Stockpile (COS) via the existing radial stacker. Ore from the COS is then fed to the existing 2.6MW SAG mill via a new replacement apron feeder and conveyor and will be coupled with a new 5.8MW ball mill with a target grind size of 150 µm.

Cyclone overflow will pass through a conditioning tank for reagent addition, before being pumped to a Jameson cell operating as a rougher scalper.

Concentrate from the rougher scalper will constitute final concentrate with rougher scalper tails reporting to a rougher scavenger circuit comprising six tank cells in series. Rougher scavenger tailings will be thickened before being pumped to the existing leach / CIL circuit.



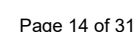






Figure 8: LOMP Process Plant Ore Feed Profile

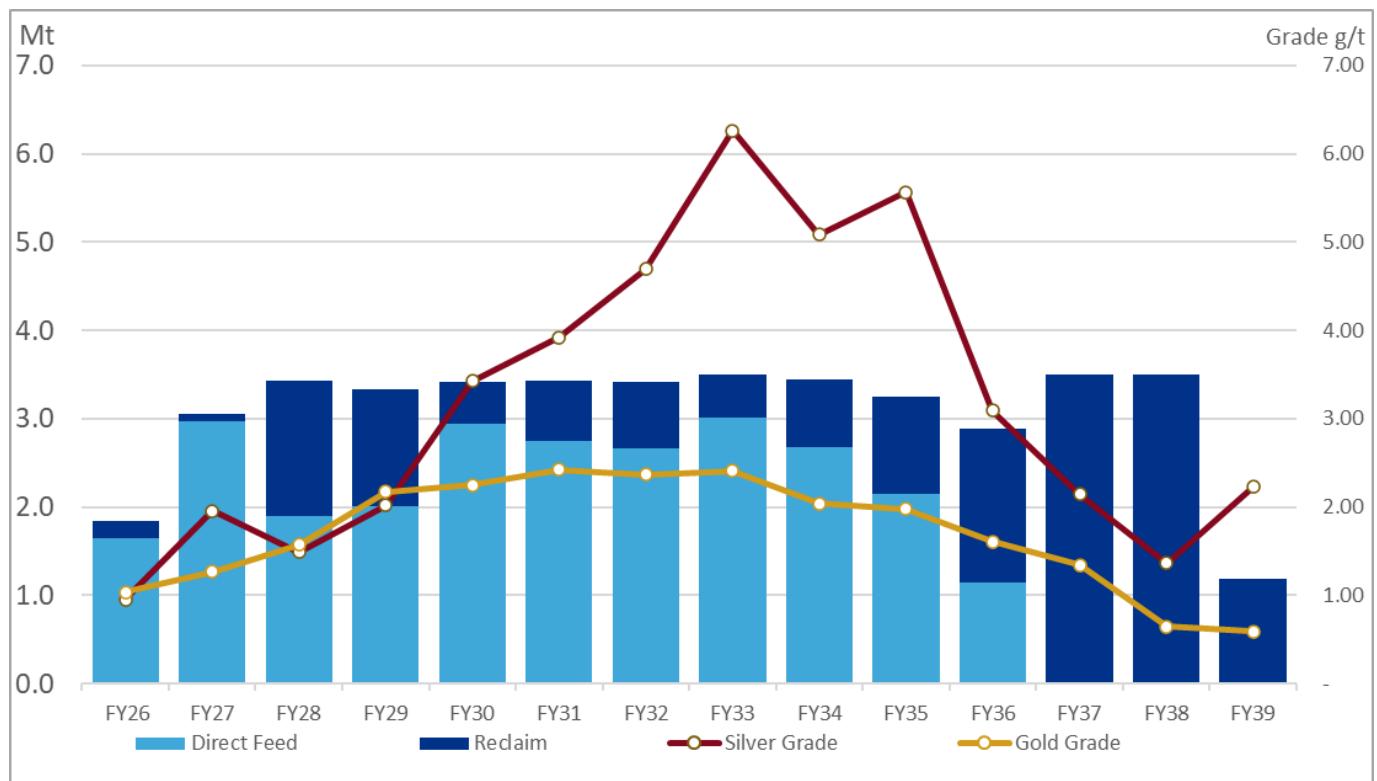
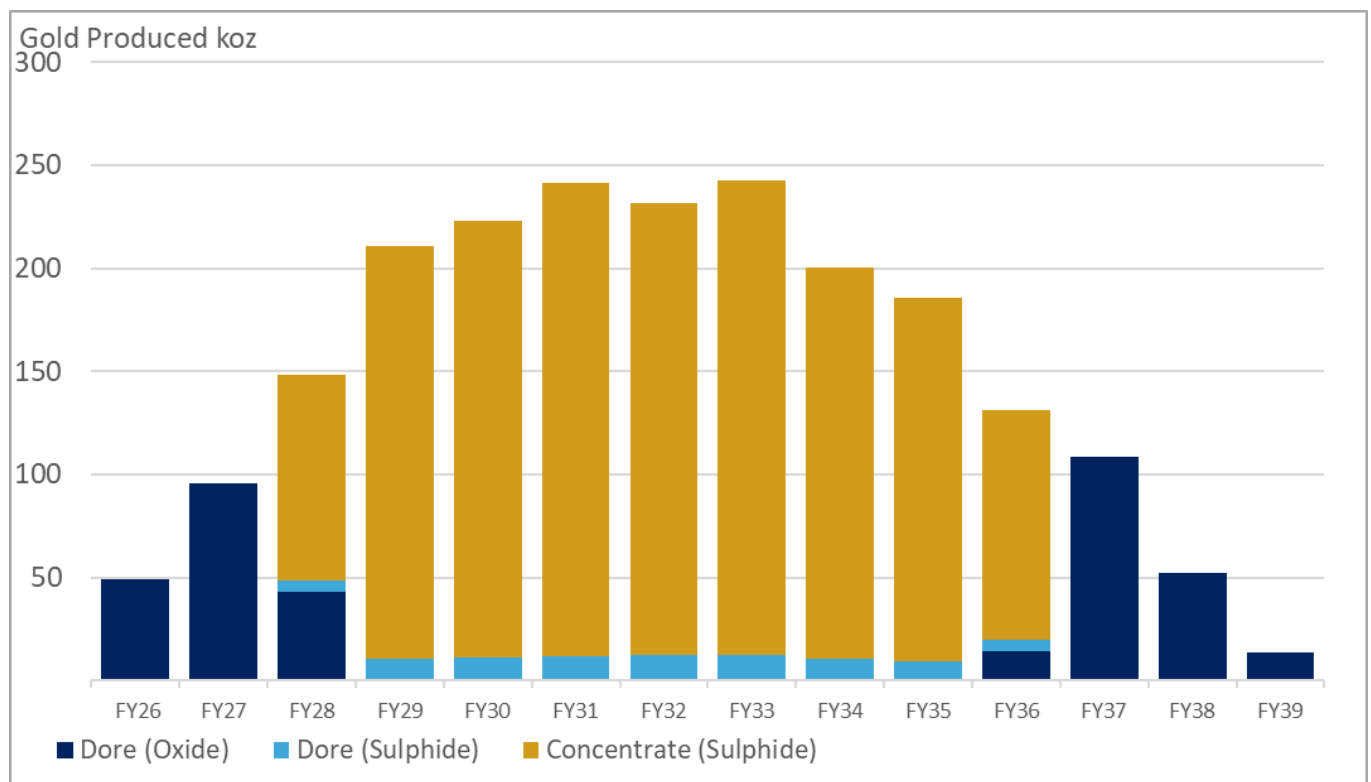


Figure 9: LOMP Gold Production Profile





## Mineral Resources

The Simberi Expansion Project Mineral Resource Estimate (MRE) has been updated and depleted for mining as of 30 September 2025. Resources are constrained within open pit shells using a gold price of US\$2,500/oz and silver price of US\$25/oz, with cut-offs of 0.4 g/t Au for oxide and 0.6 g/t Au for sulphide material. Total resources comprise 138 Mt at 1.3 g/t Au for 5.8 Moz Au and 3.5 g/t Ag for 15.4 Moz Ag, including Measured, Indicated, and Inferred categories. Compared to the previous estimate (*refer ASX release 30 April 2025 'Pre-Feasibility Work confirms improved 200+kozpa Simberi Expansion Project Life of Mine Plan'*), the MRE net of depletion has increased by 0.9 Moz of gold and 2.8 Moz of silver due to the higher metal prices applied.

**Table 8 : Simberi Mineral Resources as at 30 September 2025**

Project	Classification	Tonnes (Mt)	Grade		Contained Metal	
			Au (g/t)	Ag (g/t)	Au (koz)	Ag (koz)
Oxide	Measured	14.2	1.0	2.2	460	1,000
	Indicated	15.3	1.2	4.0	590	1,970
	<b>Total Measured and Indicated</b>	<b>29.5</b>	<b>1.1</b>	<b>3.1</b>	<b>1,050</b>	<b>2,970</b>
	Inferred	2.9	0.9	2.4	80	220
	<b>Total Oxide</b>	<b>32.4</b>	<b>1.1</b>	<b>3.1</b>	<b>1,130</b>	<b>3,190</b>
Sulphide	Measured	27.5	1.4	2.8	1,240	2,480
	Indicated	71.1	1.4	4.1	3,200	9,380
	<b>Total Measured and Indicated</b>	<b>98.6</b>	<b>1.4</b>	<b>3.7</b>	<b>4,440</b>	<b>11,860</b>
	Inferred	4.9	1.2	1.9	190	300
	<b>Total Sulphide</b>	<b>103.5</b>	<b>1.4</b>	<b>3.7</b>	<b>4,630</b>	<b>12,160</b>
Stockpile	<b>Measured</b>	<b>1.8</b>	<b>1.2</b>		<b>70</b>	
<b>Total Simberi</b>		<b>137.7</b>	<b>1.3</b>	<b>3.5</b>	<b>5,830</b>	<b>15,350</b>

### Notes:

1. Mineral Resources are reported inclusive of Ore Reserves.
2. Cut-off grades – Simberi Oxide (0.4g/t Au), Simberi Sulphide (0.6g/t Au).
3. Mineral Resources are reported constrained by a US\$2,500/oz pit shell
4. Rounding may result in apparent summation differences between tonnes, grade and contained metal.

## Ore Reserves

The Ore Reserves Estimate in the Feasibility study has been updated since last reported (*refer ASX release 30 April - 'Pre-Feasibility Work confirms 200kozpa Simberi Expansion'*).

Overall the gold Ore Reserve estimate has reduced by 140koz from 2,610koz to 2,470koz. The change includes the impact of an increase in metal price, which is partially offset by increases in operating costs (for oxides), resulting in an overall reduction in cut-off grade, in addition to depletion from the mining and processing operation and the omission of some areas outside of currently disturbed catchments.



**Table 9 : Simberi Ore Reserves as at 30 September 2025**

Project	Classification	Tonnes (Mt)	Grade		Contained Metal	
			Au (g/t)	Ag (g/t)	Au (koz)	Ag (koz)
Oxide	Proved	10.5	1.1	1.5	370	510
	Probable	4.5	1.1	2.3	160	330
	<b>Total</b>	<b>15.0</b>	<b>1.1</b>	<b>1.8</b>	<b>530</b>	<b>840</b>
Sulphide	Proved	9.1	2.2	3.0	630	880
	Probable	17.7	2.2	5.0	1,240	2,840
	<b>Total</b>	<b>26.8</b>	<b>2.2</b>	<b>4.3</b>	<b>1,880</b>	<b>3,710</b>
Stockpile	<b>Proved</b>	1.4	1.4		60	
<b>Total Simberi</b>		<b>43.1</b>	<b>1.8</b>	<b>3.3</b>	<b>2,470</b>	<b>4,560</b>

Notes:

1. Metal price: US\$2,000/oz Au and \$20/oz Ag
2. Cut-off to define ore based on a US\$0/t net revenue, including gold and silver revenue
3. Mine plan assumes oxide processing FY26 to Q2FY28, sulphide processing from Q2 FY28, and remnant oxide processing on sulphide depletion
4. Rounding may result in apparent summation differences between tonnes, grade and contained metal.

## Capital Costs

Table 7 provides a more detailed break-down of all capital costs for the LOMP broken into the following categories:

**Pre- Expansion Growth** – This is primarily activity associated with improvement/repairs to the existing process plant, the camp expansion, new haul road. This capital estimate is based on a proportion quotes, studies and estimates taken from the site capital forecast.

**Project Initial Capital** – The Sulphide Expansion Project activity including early works. The cost estimate has been prepared in accordance with AACE guidelines and meets Class 3 requirements with the exception of the estimate for the pre-construction costs for the Waste Rock dumps, drainage channels, sediment ponds and process water pond. The total estimate for project initial capital is \$275M, with the Class 3 estimate for the process plant and infrastructure build accounting for \$246M. The waste rock dump component accounts for \$24M (inclusive of contingency). As the detailed designs only became available at the conclusion of the FS there was not time to receive formal quotations for the cost estimating and so costs have been estimated using site cost assumptions on the bill of quantities provided and a 30% contingency has been added to account for this. The drainage, sediment ponds and process water ponds account for \$4M (inclusive of contingency) up to first concentrate production. These designs were at a conceptual level at the completion of the study as the final designs require the completed feasibility designs to progress to final designs. The estimate for this work was based on the conceptual bill of quantities provided by Engeny with site cost assumptions and a 30% contingency added.

**LOMP Growth Capital** – Installation of a new CIL circuit (as discussed in the processing section) is included as LOMP Growth capital as well as the installation of a new tailings thickener . The cost estimate has been prepared in accordance with AACE guidelines and meets Class 3 requirements.

**LOMP Sustaining Capital** – An allowance for ongoing capital to maintain plant and infrastructure reliability and performance. The bulk of the estimate is applied on a percentage of 3%pa spend on new process plant and infrastructure installed cost and 7%pa spend on the existing plant and infrastructure installed cost (reflecting the older age of that equipment and infrastructure). There is also a small amount of sustaining capital associated with ongoing installation of drainage channels and water reticulation from the mine to the sediment ponds and process plant pond.

An amount of US\$75M has been included in the LOMP for closure costs at the end of processing life, noting that the current closure estimate for the Simberi oxide operation was US\$49.4M as at 30 June 2024. Much of the disturbance footprint for the Sulphide Expansion Project overlaps with the existing disturbance footprint. The spend profile reflects ongoing progressive rehabilitation that is currently occurring on existing disturbance and will continue as the new waste rock dumps are progressively revegetated during their bottom up construction to help manage surface erosion and reduce oxygen ingress early.



**Table 10: LOMP Average Capital Costs**

Area	Pre-Expansion Capital (US\$M)	Project Initial Capital (US\$M)	LOMP Growth (US\$M)	LOMP Sustaining Capital (US\$M)	Total Capital (US\$M)
Mine	16	3	-		19
WRDs, Drainage and Ponds		22		3	25
Process Plant	34	91	15	70	210
Infrastructure	5	47	-	43	95
EPCM		11	2		13
Construction Indirects		41	5		46
Owner's Costs	2	37	4		43
Buildings/Camp	1	2	-		4
Contingency		21	3		24
<b>Total</b>	<b>59</b>	<b>275</b>	<b>29</b>	<b>116</b>	<b>478</b>

## Operating Costs

Operating costs have been developed based on the following sources and assumptions:

- Mine operating costs for the oxide operation were derived from the existing Company budget and forecast figures, which is in turn based on historical performance updated for changes including installation of the Sizer crusher and known mine fleet changes. Mining operating costs for the mining of sulphides were developed by AMC from first principles (with mine fleet lease payments included in operating costs to match cash outlays timing rather than shown in Sustaining Capital) and where applicable current operating costs. The costs developed by AMC are +/- 15% accuracy.
- Processing operating costs have been developed by Pitch Black based on material costs, unit costs supplied by suppliers and data from existing operations where applicable (with assumption that power station continues to be owned and operated by the Company). These costs are +/- 15% accuracy; and
- G&A costs are based on current site G&A costs and corporate recharges.

**Table 11: LOMP Average Operating Costs**

Cost Centre	US\$/t milled
Processing (inc. Concentrate Transport, TC/RC)	31.6
Mining	16.3
G&A	9.4
Corporate G&A	0.5
<b>Total Operating Cost</b>	<b>57.8</b>



## Risk Considerations

### General Risks, including PNG Sovereign Risk

Exploration, development and operation of gold operations is subject to numerous risks as outlined in detail in St Barbara's 2025 Annual Report ([refer here](#)) which we recommend investors reread. Development of the Simberi Expansion Project and achievement of the projections outlined in the LOMP in particular faces risks related to the political and economic uncertainties in Papua New Guinea (PNG).

The formulation and implementation of government policies in PNG may be unpredictable. In PNG there is political focus on potential future policy changes that could include changes to the existing Mining Act, including in relation to the structure and level of local equity participation in projects, royalty and taxation regimes, proposition of in-country precious metals refining, changes to banking and foreign exchange controls and changes in controls pertaining to the holding of cash and remittance of profits and capital to the parent company.

Any changes to the Mining Act will require close assessment and the inclusion and clarity of any grandfathering provisions will be important to promote stability for existing PNG projects.

### Final Investment Decision Timing and Overall Project Schedule Risks

As noted above, the FID was targeted for Q2 Dec FY26 quarter in the Simberi Expansion Project Feasibility Study but due to delays with the resolution of the amended income tax and withholding assessments and mine lease renewal date the FID date is now anticipated to be in Q3 Mar FY26. While the Company remains confident that its subsidiary has no tax payable in relation to the flawed assessments, development of funding proposals for the Simberi Expansion Project have been difficult to advance while the amended tax assessments matter was unresolved.

The Company's objection is currently being reviewed by a separate team within the IRC and the Commissioner has not made a formal determination. The timeliness of the IRC review and the Commissioner's response is not stipulated by legislation.

The Feasibility Study, the long lead time ball mill procurement, the associated detailed design of the new ball mill circuit, the work to finalise conditions on the CEPA environmental permit and the completion of construction of the camp expansion have continued to reduce the impact on the schedule.

The Company's Mining Lease early renewal application was submitted in December 2024. The Mining Advisory Committee completed its review and referred the application to the Minister of Mining on 3 September 2025 with a recommendation to grant the extension. Confirmed grant of renewal is required for investment.

### Concentrate Marketing and Transport Risks

The Company has relied on experienced consulting expertise to provide assessments of likely metal payables, transport charges and refining treatment charges for concentrate as well as shipping rates for the saleable concentrate estimated to be produced across the Simberi Expansion Project LOMP. The Simberi gold concentrate is expected to be attractive with the metallurgical testwork program indicating that high gold recoveries can be achieved with a marketable gold content averaging 18.8g/t Au with low levels of impurities. Nonetheless market conditions across refining (charges and payables) and transport can vary over time and regulations in destination countries can change from time to time and presents a risk to the Simberi LOMP projections.

### Capital and Operating Cost Estimate Basis and Estimate Accuracy Risks

The combination of Pre-Expansion Growth Capital and Project Initial Capital are estimated to achieve the modifications required to convert to the production of a saleable gold concentrate from processing of sulphides (while retaining oxide CIL treatment capability), the installation of additional power generation and the construction of the new wharf. The cost estimate is largely based on recent quotations.

Similar projects being constructed on island environments have encountered uncertainties with capital costs due to lack of timely geotechnical information upon which to base construction cost estimates. The Feasibility Study has had the benefit of the knowledge of the existing plant site conditions and past geotechnical work and more recent geotechnical drilling. The results of the recent drilling around the process plant and waste rock dumps have been incorporated into the Feasibility Study estimates. Whilst test hole data indicates subsurface conditions at the specific locations where samples were obtained or where in situ tests were conducted, the samples and tests may not accurately reflect the



nature and extent of variations in strata and material parameters that may exist between sampling or testing locations. As such there remains a risk that the cost estimates for this work are found to be inadequate during construction.

Operating conditions can and have been impacted by disruptions to fuel supplies, equipment parts and consumables because of difficulties with availability of foreign currency for St Barbara's suppliers in Papua New Guinea. These may return to cause disruptions over the period of the Simberi Expansion Project LOMP. Conversely, St Barbara has assumed an exchange ratio for the Papua New Guinea Kina to the US Dollar of approximately 3.9 despite declining trends, which may or may not prove to be correct over the period.

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## Disclaimer

This report contains forward-looking statements that are subject to risk factors associated with exploring for, developing, mining, processing and the sale of gold. Forward-looking statements include those containing such words as anticipate, estimates, forecasts, indicative, should, will, would, expects, plans or similar expressions. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, and which could cause actual results or trends to differ materially from those expressed in this report. Actual results may vary from the information in this report. The Company does not make, and this report should not be relied upon as, any representation or warranty as to the accuracy, or reasonableness, of such statements or assumptions. Investors are cautioned not to place undue reliance on such statements.

This report has been prepared by the Company based on information available to it, including information from third parties, and has not been independently verified. No representation or warranty, express or implied, is made as to the fairness, accuracy or completeness of the information or opinions contained in this report. To the maximum extent permitted by law, neither the Company, their directors, employees or agents, advisers, nor any other person accepts any liability, including, without limitation, any liability arising from fault or negligence on the part of any of them or any other person, for any loss arising from the use of this presentation or its contents or otherwise arising in connection with it.

## Non-IFRS measures

The Company supplements its financial information reporting determined under International Financial Reporting Standards (IFRS) with certain non-IFRS financial measures, including Cash Operating Costs and All-In Sustaining Cost. We believe that these measures provide additional meaningful information to assist management, investors and analysts in understanding the financial results and assessing our prospects for future performance.

**All-In Sustaining Cost (AISC)** is based on Cash Operating Costs and adds items relevant to sustaining production. It includes some, but not all, of the components identified in World Gold Council's Guidance Note on Non-GAAP Metrics – All-In Sustaining Costs and All-In Costs (June 2013).

- AISC is calculated on gold production in the quarter.

For underground mines, amortisation of operating development is adjusted from "Total Cash Operating Costs" in order to avoid duplication with cash expended on operating development in the period contained within the "Mine & Operating Development" line item.

- Rehabilitation is calculated as the amortisation of the rehabilitation provision on a straight-line basis over the estimated life of mine.

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

## Competent Persons Statement

The information in this report that relates to Mineral Resources 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 Ore Reserves at Simberi Operations is based on information reviewed and compiled by Mr. Glen Williamson who is a Chartered Professional (Mining) and Fellow of the Australasian Institute of Mining and Metallurgy. Glen Williamson is a full-time employee of AMC Consultants Pty Ltd 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". Glen Williamson consents to the inclusion in the statement of the matters based on his information in the form and context in which it appears.



# Simberi Mineral Resource Estimate Summary

## Geology and Geological Interpretation

Simberi Island, the northernmost of the Tabar Group in Papua New Guinea, forms part of the Tabar-Lihir-Tanga-Feni (TLTF) island arc, with volcanism beginning around 3.7 Ma related to back-arc extension in the Manus Basin. The TLTF islands comprise high-K calc-alkaline and silica-undersaturated alkaline rocks, and regional structural trends are dominated by north-northeast and west-northwest faults. Simberi itself is approximately 9 km in diameter, with a central volcanic core of volcanic and intrusive rocks partly encircled by raised limestone reef.

Gold mineralisation occurs within an alkalic epithermal system in the eastern half of the central volcanic core, extending ~4 km north–south by 2 km east–west. Host rocks include altered and brecciated andesites, volcanoclastic rocks, tuffs, and intrusives, with mineralisation structurally controlled by faults and extension-related fractures. Two main alteration styles are recognised: early potassic–phyllic and later carbonate alteration. Oxide gold predominates at higher elevations, with sulphide-hosted gold (mainly in pyrite and marcasite) dominating deeper zones. Gold occurs as sub-microscopic inclusions in pyrite and as discrete Au-Ag tellurides or Au-Ag-Fe alloys, with pyrite the principal refractory host.

A three-dimensional geological model was compiled using implicit modelling in Leapfrog Geo with an indicator Radial Basis Function (RBF) interpolant to define the continuity of gold and associated elements. Mineralisation envelopes were constrained by a 0.25 g/t Au cut-off, structural orientation disks reflecting the dominant east–southeast trend, and polylines consistent with geochemical zoning.

Weathering at Simberi is complex and non-linear, logged as oxide, transitional, or sulphide. The Mineral Resource incorporates advanced AI-based weathering models, developed in collaboration with Stratum AI using deep learning on exploration and production data. This model, validated through grade control reconciliation, is now the preferred model for material type classification and underpins the current Resource estimate.

## Drilling Techniques

Exploration at Simberi has been conducted using channel sampling, reverse circulation (RC), aircore (AC), and diamond drilling (DD) by multiple operators since 1984. Diamond drilling was predominantly triple-tube PQ/HQ core, and RC drilling employed face-sampling hammers, with hole sizes and methods varying by company and era. Grade control drilling has primarily used 5¾" RC holes, supplemented by open-hole blast holes and auger drilling where required.

Drill collars have been surveyed using electronic distance measurement (EDM), local Tabar Islands Grid coordinates, LiDAR surveys, and downhole surveys for diamond and, more recently, RC holes. Core recoveries average >90%, with RC samples collected via cyclone splitters and inspected regularly for consistency. Exploration and grade control drilling have been routinely logged for lithology, alteration, mineralisation, oxidation, and structure, with the majority of holes incorporated into the current Mineral Resource estimate.

## Sampling and sub-sampling techniques

Exploration and grade control drilling at Simberi has employed diamond core (DD), reverse circulation (RC), and aircore (AC) drilling, with samples collected at one-metre intervals for exploration and two-metre intervals for grade control. Diamond core is halved, with half retained in secure storage and the other prepared on-site via drying, crushing, and pulverising to ~75–80 µm before dispatch to an off-site laboratory. RC and AC samples are collected via cyclone and riffle splitters, with sub-samples typically weighing 0.8–2 kg, dried, and pulverised prior to analysis.

Sampling protocols have been consistent across operators, with duplicates, rejects, and pulps retained to ensure quality. Samples are processed on site through oven drying, crushing, splitting, and pulverising, with dispatch to accredited off site laboratories for fire assay and other analyses. Quality control measures such as blanks and duplicates are routinely applied.

## Sample Analysis Method

Gold analyses have been conducted using 50 g fire assays with an AAS finish, while multi-element assays (Ag, As, S, Fe, Cu, Pb, Zn, Mo, Sb) are determined via Aqua Regia digestion and ICP-AES. Samples have been prepared at on-site and off-site laboratories, with analytical procedures largely consistent across operators from Kennecott Exploration (1984–1991) through to St Barbara Limited (2012–2024).

Quality control measures include the insertion of certified reference materials, blanks, coarse-reject duplicates, and pulp duplicates, as well as review of sample sizing. Duplicate and umpire laboratory assays indicate no systematic bias, with variability primarily reflecting the nuggetty nature of the mineralisation. Analytical data are routinely validated and recorded in the Simberi Exploration Database.



## Estimation Methodology

Bulk density is primarily controlled by weathering intensity, with block densities calculated based on the proportion of oxide, transitional, and sulphide material. Gold was estimated using ordinary kriging within grade shells, with un-estimated blocks assigned a nominal value where required, and validated through inverse distance squared and nearest neighbour methods, showing good agreement at both global and local scales.

Iron and sulphur were estimated by co-kriging by weathering type, with un-estimated blocks assigned default values, and other elements (Ag, As, Ca, Cu, Mo, Pb, Zn) were estimated using inverse distance weighting within the grade shell. The current model incorporates AI-based weathering models developed by Stratum AI, using deep learning to refine resource and recovery estimates from exploration and production data.

## Mineral Resource Classification

Mineral Resource classification was based on drill spacing, data quality, and geological continuity. Blocks were classified as Measured where drill spacing is up to ~20 m, Indicated up to ~60 m, and Inferred for spacing greater than 60 m. Classifications reflect the confidence in the estimate arising from the density of drilling and the continuity of mineralisation.

## Cut-off Grades

Oxide resources are reported at a 0.4 g/t Au cut-off, and sulphide resources at 0.6 g/t Au. The estimate assumes conventional open pit mining, with pit shells and cut-off grades based on a gold price of US\$2,500/oz, silver price of US\$25/oz, processing costs of US\$18.9/t (oxide) and US\$35.6/t (sulphide), and mining costs of US\$4.40/t.

## Material Modifying Factors

The Simberi Mineral Resources are supported by existing mining tenure, environmental approvals, and infrastructure, operated by St Barbara's 100% subsidiary, Simberi Gold Company Limited (SGCL). The Simberi Mining Lease (ML136) covers 2,560 ha on the eastern half of Simberi Island, with extension to 2038 recommended by the Mining Advisory Committee; formal Ministerial approval is pending. SGCL holds full rights to surface infrastructure, while compensation agreements are in place with traditional landowners for mining impacts, and royalties are governed by a Memorandum of Agreement with landowners and government authorities.

Environmental management is governed by Permit WD-L3(36) (expiring 2046), which stipulates requirements for waste, water, rehabilitation, monitoring, and reporting, with compliance to the environmental management plan mandatory. Additional permits cover gold export, operation of the aerodrome, and other operational requirements. The Mineral Resource estimate assumes continuing access to infrastructure for sulphide project development and ongoing support from traditional landowners.

## Simberi Ore Reserve Estimate Summary

### Studies

Simberi is an operating mine and has been in operation in its current form since 2013. All infrastructure required for oxide mining is in place.

The oxide Ore Reserve estimate is based on a combination of actual and budget forecast performance and cost data, laboratory test work and metallurgical assessment for recoveries.

The sulphide Ore Reserve estimate is based on expansion of the process plant to include the installation of a flotation circuit to generate a saleable gold concentrate for these Sulphide ores. The sulphide Ore Reserve estimate disclosed in this announcement is underpinned by the updated operating and capital cost estimates from the AACE Class 3 Feasibility Study prepared by Pitch Black. Metallurgical Recoveries have been updated by Paradocs Metallurgy using testwork results from the recent metallurgical testwork program undertaken over the past year at Base Met labs in Canada.

### Classification Criteria

The basis for the classification was the Mineral Resources classification and Net Value cut-off grade.

The ex-pit material classified as Measured and Indicated Mineral Resources, has a cut-off value calculated using a Net Value Script (NVS). If it is demonstrated to be economic to process and is classified as Proved and Probable Ore Reserves respectively.

Existing stockpile material is classified as Proved Ore Reserves.

The Ore Reserves do not include any Inferred Mineral Resources.

No portion of the Probable Ore Reserve has been derived from Inferred Mineral Resources.



## **Mining method and assumptions**

For the estimation of Ore Reserves the following activities were undertaken: dilution modelling, pit optimization, detailed final and stage pit designs, waste dump and haul design, mine and process scheduling and economic evaluation on a LOM plan.

Simberi mine is an open pit operation that is currently mining and processing oxide gold ore. The operation uses a fleet of excavators and articulated dump trucks along with a fleet of ancillary equipment. This mining method is appropriate for the style and size of the mineralisation.

Geotechnical parameters were derived from a report by a specialist geotechnical consultant. Pit slopes used for pit optimisation varied by deposit and depth from 30° at shallow depths in oxide to 38° at depth in fresh rock. Batter angles for pit designs varied from 45° to 60°, with 7-8 m berms and 15 m batter heights.

Pit optimisation using a mining model derived the September 2025 resource model, based on Measured and Indicated Mineral Resources, to provide guidance for staged pit designs used as the basis of the mining inventory for the September 2025 Ore Reserve.

Mining dilution was modelled using a 1.0 m dilution skin and a marginal cut-off grade. Sulphide material took priority over oxide material on the basis that there are no recovery penalties for oxide material processed in the sulphide circuit. Average dilution was 13% of tonnes and 4% of metal and average ore loss was 5% of tonnes and 3% of metal on a global scale.

Final and staged pit designs incorporated a minimum mining width of 30 m, although in some areas of Sorowar this was reduced to 25 m.

Inferred Mineral Resource blocks were treated as waste in the dilution study, pit optimisation, mine scheduling and economic evaluation.

All infrastructure required for oxide mining is in place, however, a sulphide ore processing plant will be required prior to processing sulphide ore.

## **Processing method and assumptions**

Oxide ore is transported via Ropecon conveyor or trucked for processing through the existing parallel comminution circuit to a conventional carbon-in-leach (CIL) circuit with an Anglo-American Research Laboratories (AARL) elution circuit, and gold recovery facilities. Tailings are stored via deep sea tailings placement (DSTP).

Sulphide ore will be trucked for processing through a new sulphide plant with conventional flotation cells producing a gold concentrate, with flotation tails leached in the CIL circuit to produce gold doré via the existing AARL circuit.

All processing components are well tested technology, and the Competent Person considers the process suited to the mineralisation.

Metallurgical recovery through the oxide plant is variable by deposit and amount of weathering. St Barbara have worked with Stratum AI to develop AI-based algorithms which are used to determine whether oxidized or partially oxidized ores are best suited to be fed through the current CIL plant or stockpiled for later treatment along with Sulphide ores. Average gold recovery for the oxide and transition ore across the Simberi deposits is 74%, estimated using an ordinary kriged sulphur grade.

Metallurgical recovery by deposit through the sulphide plant has been developed through a geometallurgical variability testwork programme.

The amount of test work is considered appropriate and domaining has been based on identifying weathered, transitional and fresh mineralisation from logging data. Average recovery for the sulphide ore across the Simberi deposits is 90%.

Iron and Sulphur values are included in the resource model and metallurgical recovery equations.

The existing oxide operation allows access to oxide, transition and fresh ore for testwork and analysis.

Simberi ore is not defined by a specification, although sulphide concentrate value will be determined by meeting a gold grade specification, which is accounted for in calculations.

## **Cut-off Grades**

Cut-off grades (COG) were calculated using a metal price of \$2,000/oz Au and \$20/oz Ag. COG estimates are based on a net value script calculation that includes recoveries (see Metallurgical factors), gold price, payability; royalty, selling costs (see Revenue factors), operating costs (see Costs) associated with current oxide and projected sulphide operations to calculate break-even COG and marginal COG (50% reduction in G&A cost). Economically positive blocks are considered for inclusion in the Ore Reserve, marginal grade sulphide blocks which were not able to be blended to produce a saleable concentrate product are excluded from the Ore Reserve.

## **Estimation methodology**

The Simberi Ore Reserves have been prepared for both the Oxide (CIL inventory) and Sulphide (Flotation) material types. The Oxide Ore Reserves are based on a combination of actual historical performance and cost data, laboratory test work and metallurgical development and the Sulphide Ore Reserve is based on the Class 4 AACE Plant Study and updated Metallurgical recovery equations from the recently completed metallurgical testwork program undertaken at Base Met Labs in Canada.



Pit optimisations were undertaken using Gemcom's Whittle Optimisation software and strategic scheduling was completed using Minemax Scheduler™ software to quarterly resolution. The Minemax schedule was then used as the basis for the generation of a monthly tactical schedule completed in Alastri Tactical Scheduler™. Economic modelling was completed using the updated costs from the Feasibility Study Class 3 estimate.

### **Approvals and Infrastructure**

St Barbara holds two environmental permits. One for the extraction of water and one to carry out works and the discharge of waste, of which the latter was amended in June 2022 to include Sulphide Mining activities. Together these two permits form the environmental legislative basis in which SGCL can operate. Compliance with these conditions is continuously monitored and reported on in Quarterly Environment Performance Reports which are submitted to the National Government Department of Conservation Environment and Protection Authority (CEPA).

In addition, St Barbara maintains an Environment Permit for Exploration relating to Waste Discharge. This Permit is referred to as Environment Permit WDL-2A(65).

All equipment required for the mining and processing of the oxide Ore Reserve is in place and operational.

For the processing of Sulphide ores, the FS identified the following additional infrastructure, that will be located on St Barbara held tenements and leases. The infrastructure includes but is not limited to:

- Additional light fuel oil diesel generators
- Additional Water supply
- Sulphide Processing Plant
- Additional haulage network
- Expansion of accommodation and camp facilities
- New wharf to accommodate concentrate shipment to market.



- JORC Table 1 Checklist of Assessment and Reporting Criteria
- Section 1 Sampling Techniques and Data – Simberi

Criteria	Comments
<b>Sampling Techniques</b>	<ul style="list-style-type: none"> <li>Sampling was conducted using reverse circulation (RC) chips and half-core from diamond drilling (DD). Kennecott (1984–1989), Nord (1995–1998), Allied (2004–2012), and St Barbara (2012–present) conducted drilling programs. RC samples were collected from cyclones into calico or polyweave bags, with sub-sampling via riffle splitters or spear sampling for wet material. Diamond core was cut in half using diamond saws, with one half sent for assay and the remainder archived. Sample sizes and preparation methods varied historically but have consistently included crushing, milling, and pulverising to -75 to -80 µm before dispatch to laboratories.</li> </ul>
<b>Drilling Techniques</b>	<ul style="list-style-type: none"> <li>Kennecott: RC (3.75–4") and PQ/HQ DD; Nord: RC and triple-tubed DD; Allied: RC and DD; St Barbara: HQ3/PQ3/NQ3 DD using standard triple tubes and RC (3½" drill string, 114 mm hammer).</li> </ul>
<b>Drill Sample Recovery</b>	<ul style="list-style-type: none"> <li>Diamond core recovery measured against core blocks; average &gt;90%, reduced in faulted or weathered zones. RC samples collected via cyclone splitter; cyclones cleaned every 6 m. Wet samples decanted before bagging. Recovery monitored visually and by sample weight checks.</li> <li>Gold grade correlates with core recovery; historic poor-recovery diamond holes may understate grade; triple-tube drilling now ensures reliable recovery.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>All RC and diamond holes geologically logged in full for lithology, alteration, veining, sulphide mineralisation; diamond cores geotechnically logged for strength, infill, weathering, and shape. Logging data entered into templated Excel workbooks and stored in a secure SQL database. Whole-core photography completed on wet core.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>Historical sub-sampling included riffle splitting, pulverisation to -75 to -80 µm, and 50–200 g aliquots for assay. RC and DD samples prepared at on-site facilities or sent to ALS Townsville, with pulp residues archived. Wet RC samples processed via spear sampling post-2008. Quality control includes insertion of coarse duplicates (1:20) and blanks (1:35). No studies on representativeness for grain size, but sample sizes are consistent with other gold deposits.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>Assays performed using fire assay AAS (50 g) and multi-element analysis via Aqua Regia digest and ICP-AES/ICP-MS. QC procedures include certified reference materials (1:20), in-house blanks (1:35), and duplicates (1:20). Independent inter-laboratory checks and round-robin tests confirm accuracy and precision. Historical data corrected where necessary (Kennecott, 1992). Recent St Barbara assays show no evidence of systematic bias.</li> </ul>
<b>Verification of sampling and assay</b>	<ul style="list-style-type: none"> <li>Twin drill holes and close-spaced RC/DD pairs were used to verify historical data. Analysis indicates some older RC and DD holes may have biased or low grades due to moisture, low air pressure, difficult ground conditions, or poor core recovery. Modern RC drilling uses higher pressures and experienced operators, and triple-tube diamond drilling ensures reliable recovery; reconciliation confirms no bias from 2017 onwards.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Drill collars surveyed using EDM or GPS in local Tabar Island Grid (TIG) which is based on UTM WGS84 Zone 56. Audit in 2005 confirmed high accuracy. Downhole surveys performed for diamond holes (every 15 m); RC holes ≥200 m surveyed where necessary.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>RC grade control nominally 10 m x 10 m, depths 30–60 m at -60°. Resource drilling locations irregular due to topography but on an approximate 40m spacing. Spacing is considered in resource classification.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Gold mineralisation occurs within steeply dipping NW–SE and NE–SW structures, with intersections as favourable hosts. Mineralisation generally associated with sulphides or iron oxides in hydraulically fractured volcanoclastic rocks. Mixed vertical and inclined drilling optimally intersects mineralisation.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>Drill sites accessed only by company personnel or approved contractors. Samples transported securely to on-site preparation facilities or accredited laboratories.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>Independent technical reviews by Golder Associates (2004, 2011) and QG (2015) identified no factors compromising resource integrity. Sampling and analytical protocols have not changed</li> </ul>

## Section 2 Reporting of Exploration Results – Simberi

Criteria	Comments
<b>Mineral Tenement and Land Tenure Status</b>	<ul style="list-style-type: none"> <li>Mining is conducted under ML136 (2,560 ha, wholly owned by SGCL), held until 2 Dec 2028, with extensions recommended to 2038 pending Ministerial approval. Royalties and compensation are in place with landowners and local authorities (2% government royalty, fully returned to landowners, plus 0.5% production levy). Environmental permit WD-L3(36) is valid to 2046. Exploration licences EL609 (~235 km²) and EL2462 (~14 km²) are pending renewal.</li> </ul>





<b>Exploration Done by Other Parties</b>	<ul style="list-style-type: none"> <li>Historical exploration conducted by CRA, BHP, Tabar JV (Kennecott, Nord Australalex, Niugini Mining), Nord Pacific, Barrick, and Allied Gold. Nord Pacific and Allied Gold were key in discovering and delineating the main oxide and sulphide deposits.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Simberi is an alkalic epithermal gold deposit within the Tabar-Lihir-Tanga-Feni island arc. Mineralisation occurs in the eastern volcanic core of the island (andesites, volcanoclastic rocks, tuffs, and porphyries) and is structurally controlled by NNE-SSW extension fractures and faults. Gold is hosted in oxide and refractory sulphide phases, primarily sub-microscopic in pyrite and marcasite, with minor tellurides; mineralisation is associated with potassic-phyllitic and late carbonate alteration within a 4 km × 2 km epithermal system.</li> </ul>
<b>Drill Hole Information</b>	<ul style="list-style-type: none"> <li>No new drilling has been included in this Mineral Resource Estimate. Recent exploration drilling results are reported separately to the ASX. This release presents a Mineral Resource Estimate and is not reporting exploration results.</li> </ul>
<b>Data Aggregation Methods</b>	<ul style="list-style-type: none"> <li>No new drilling has been included in this Mineral Resource Estimate. Recent drilling results are reported separately to the ASX. This release presents a Mineral Resource Estimate and is not reporting exploration results.</li> </ul>
<b>Relationship Between Mineralisation Widths and Intercept Lengths</b>	<ul style="list-style-type: none"> <li>No new drilling has been included in this Mineral Resource Estimate. Recent drilling results are reported separately to the ASX. This release presents a Mineral Resource Estimate and is not reporting exploration results.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>No new drilling has been included in this Mineral Resource Estimate. Recent drilling results are reported separately to the ASX. This release presents a Mineral Resource Estimate and is not reporting exploration results.</li> </ul>
<b>Balanced Reporting</b>	<ul style="list-style-type: none"> <li>No new drilling has been included in this Mineral Resource Estimate. Recent drilling results are reported separately to the ASX. This release presents a Mineral Resource Estimate and is not reporting exploration results.</li> </ul>
<b>Other Substantive Exploration Data</b>	<ul style="list-style-type: none"> <li>Metallurgical test work on sulphide ore, completed at Base Metal Laboratories (Canada) since February 2024, confirms that the Saleable Concentrate Flowsheet remains the preferred processing flowsheet.</li> </ul>
<b>Further Work</b>	<ul style="list-style-type: none"> <li>Sterilisation drilling and trenching completed for the sulphide expansion proposed waste dump locations intersected zones of gold mineralisation of potential economic significance. The results are considered encouraging; however, there has been insufficient exploration to estimate a Mineral Resource. It is uncertain if further exploration will result in the estimation of a Mineral Resource or if the mineralisation will prove to be economically mineable.</li> </ul>

### • Section 3 Estimation and Reporting of Mineral Resources – Simberi

Criteria	Comments
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>Allied Gold drilling data was externally reviewed by Golder Associates in 2005. Historic exploration data were transferred to a Maxwell's Datashed SQL model in 2009, with QAQC checks on import. Exploration drilling is reviewed and validated by senior exploration personnel prior to uploading. RC grade control data are stored in a validated Datamine Fusion database (validated 2023).</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>The Competent Person visited the site in February 2025, reviewing open pit mining, grade control practices, and the sample preparation/laboratory facilities.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>A 3D geological model using implicit RBF modelling in Leapfrog Geo was compiled to constrain gold and other element estimates, applying a 0.25 g/t Au cut-off to define mineralisation envelopes. Structural orientation and geochemical zoning guided continuity and domain limits. Weathering is classified as oxide, transitional, or sulphide, with material type modelled using advanced AI techniques (Stratum AI) integrated into the Resource model following strong reconciliation with production data. Confidence in the geological model is related to drill spacing and, based on production and reconciliation results, is considered globally high.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>Sorowar: 1,550 m strike, &lt;750 m splays; Pigibo: 740 m strike; Pigiput: 640 m diameter; Munun Creek: continuous mineralisation with Sorowar; Botlu: 680 m strike, ~250 m width; Pigicow: 600 m strike; Samat: 720 m strike, 300 m width; Bekou: 600 m strike, 40–170 m width.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>Gold estimated within/outside the 0.25 g/t Au grade shell using 2 m downhole composites and Ordinary Kriging (Isatis.Neo). Orientation disks derived from geology/structure guided variogram rotation. Top cuts ranged 13–70 g/t Au with &lt;1.8% metal loss. Silver estimated by ID<sup>2</sup>; Fe and S co-kriged. Validation performed using inverse distance checks, swath plots, and comparison to raw/declustered composites.</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 Mineral Resource estimate reports oxide resources at a 0.4 g/t Au cut-off and sulphide resources at 0.6 g/t Au, based on conventional open pit mining. Cut-offs were derived from a gold</li> </ul>



	price of US\$2,500/oz, silver price of US\$25/oz, processing costs of US\$18.9/t (oxide) and US\$35.6/t (sulphide), and mining costs of US\$4.40/t.
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>Mining is conducted under established open pit methods with a 17-year operating history. Mining practices, equipment, and recovery are well understood, and operational data supports continuity and reasonable assumptions for the Mineral Resource estimate.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>Oxide and transitional ore is amenable to processing via the existing CIL circuit, consistent with historical plant performance. Sulphide ore is refractory; recent test work confirms it can be processed through a flotation circuit to produce a saleable gold concentrate.</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>Activities on the tenement are subject to the conditions of environment permit WD-L3(36) issued on 30 December 1996 and last amended on 27 June 2022. The permit expires on 29 December 2046.</li> <li>The permit stipulates requirements for the management of waste (including rocks, tailings and other effluent), water management, rehabilitation, monitoring and reporting. The permit requires compliance with the agreed environmental management plan.</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>Determined via water immersion of intact core; potential bias in highly broken ground. Average densities applied by proportion of material (oxide, transitional, sulphide).</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>Mineral Resources were classified by sectional review of drill spacing and geological continuity: Measured <math>\leq 20</math> m, Indicated <math>\leq 60</math> m, Inferred <math>&gt; 60</math> m. Classification reflects confidence in the estimate based on drill spacing, data quality, and observed continuity of mineralisation.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>2011 Competent Person's Report (Golders) identified no compromising factors. Internal review in 2014 covered all aspects of the estimate. Cube Consultants reviewed the 2021 Resource, recommending minor sensitivity analyses.</li> </ul>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>Key uncertainties: 0.25 g/t Au grade shell, oxidation domains, and local grade variability. About 75% of grade variability occurs within <math>&lt; 10</math> m. Reconciliation indicates oxide resources are robust in mid-to-long term despite short-term variability.</li> </ul>



## Section 4 Estimation and Reporting of Ore Reserves – Simberi

Criteria	Comments
<b>Mineral Resource Estimate for Conversion to Ore Reserves</b>	<ul style="list-style-type: none"> <li>The Simberi September 2025 Ore Reserve estimate is based on an updated June 2024 Mineral Resource estimate compiled by Jane Bateman, who is a full-time employee and Principal Geologist of St Barbara Limited. The gold grade was estimated using ordinary kriging, with oxide reported at a cut-off grade of 0.4 g/t au and sulphide at 0.6 g/t Au.</li> <li>The Mineral Resource is reported using a metal price of \$2,500/oz Au, \$25/oz Ag and is inclusive of the Ore Reserve.</li> </ul>
<b>Site Visits</b>	<ul style="list-style-type: none"> <li>The Competent Person visited the site in August 2024 to examine open pit operations, pit wall exposures, mobile fleet condition, drill core samples of oxide and sulphide ore and waste, site conditions, local infrastructure and to discuss the mining and mine planning programmes with site personnel. The site visit confirmed the mine planning approach and Modifying Factors used in ore reserve estimation are appropriate.</li> </ul>
<b>Study Status</b>	<ul style="list-style-type: none"> <li>Simberi is an operating mine and has been in operation in its current form since 2013. All infrastructure required for oxide mining is in place.</li> <li>The oxide and transitional Ore Reserve estimate is based on a combination of actual and budget forecast performance and cost data, laboratory test work and metallurgical assessment for recoveries.</li> <li>The inputs used in the pit optimisations and pit designs that support the sulphide Ore Reserve estimate are based on the Process Plant Layout and Design Study (AACE Class 4) completed in March 2025 by Pitch Black Group along with updated metallurgical parameters from Paradocs Metallurgy developed from geometallurgical testwork completed at Base Metal Laboratories in Canada. The cost modelling was subsequently updated using the capital and operating cost estimates from the Feasibility Study (AACE Class 3).</li> <li>The Competent Person considers that Modifying Factors are known to at least Feasibility Study level.</li> </ul>
<b>Cut-off Parameters</b>	<ul style="list-style-type: none"> <li>Cut-off grades (COG) were calculated using a metal price of \$2,000/oz Au and \$20/oz Ag. COG estimates are based on a net value script calculation that includes recoveries (see Metallurgical factors), gold price, payability; royalty, selling costs (see Revenue factors), operating costs (see Costs) associated with current oxide and projected sulphide operations to calculate break-even COG and marginal COG (50% reduction in G&amp;A cost). Economically positive blocks are considered for inclusion in the Ore Reserve, marginal grade sulphide blocks which were not able to be blended to produce a saleable concentrate product are excluded from the Ore Reserve.</li> </ul>
<b>Mining Factors or Assumptions</b>	<ul style="list-style-type: none"> <li>A life-of-mine (LOM) plan was developed from dilution modelling, pit optimisation, detailed final and stage pit designs, waste dump and haul design, mine and process scheduling and economic evaluation.</li> <li>The Competent Person considers the mining method using a fleet of excavators, articulated dump trucks and associated ancillary equipment and the mine design are appropriate for the deposit.</li> <li>Geotechnical parameters were derived from a report by a specialist geotechnical consultant. Pit slopes used for pit optimisation varied by deposit and depth from 30° at shallow depths in oxide to 38° at depth in fresh rock. Batter angles for pit designs varied from 45° to 60°, with 7-8 m berms and 15 m batter heights.</li> <li>Pit optimisation using a mining model derived from the September 2025 resource model, based on Measured and Indicated Mineral Resources, to provide guidance for staged pit designs used as the basis of the mining inventory for the September 2025 Ore Reserve.</li> <li>Mining dilution was modelled using a 1.0 m dilution skin and a marginal cut-off grade. Sulphide material took priority over oxide material on the basis that there are no recovery penalties for oxide material processed in the sulphide circuit. Average dilution was 13% of tonnes and 4% of metal and average ore loss was 5% of tonnes and 3% of metal on a global scale.</li> <li>Final and staged pit designs incorporated a minimum mining width of 30 m, although in some areas of Sorowar this was reduced to 25 m.</li> <li>Inferred Mineral Resource blocks were treated as waste in the dilution study, pit optimisation, mine scheduling and economic evaluation.</li> <li>All infrastructure required for oxide mining is in place, however, a sulphide ore processing plant will be required prior to processing sulphide ore.</li> </ul>



Criteria	Comments
<b>Metallurgical Factors or Assumptions</b>	<ul style="list-style-type: none"> <li>Oxide ore is transported via Ropecon conveyor or trucked for processing through the existing parallel comminution circuit to a conventional carbon-in-leach (CIL) circuit with an Anglo-American Research Laboratories (AARL) elution circuit, and gold recovery facilities. Tailings are stored via deep sea tailings placement (DSTP).</li> <li>Sulphide ore will be trucked for processing through a new sulphide plant with conventional flotation cells producing a gold concentrate, with flotation tails leached in the CIL circuit to produce gold doré via the existing AARL circuit.</li> <li>All processing components are well tested technology, and the Competent Person considers the process suited to the mineralisation.</li> <li>Metallurgical recovery through the oxide plant is variable by deposit and amount of weathering. St Barbara have worked with Stratum AI to develop AI-based algorithms which are used to determine whether oxidized or partially oxidized ores are best suited to be fed through the current CIL plant or stockpiled for later treatment along with Sulphide ores. Average gold recovery for the oxide and transition ore across the Simberi deposits is 74%, estimated using an ordinary kriged sulphur grade.</li> <li>Metallurgical recovery by deposit through the sulphide plant has been developed through a geometallurgical variability testwork programme.</li> <li>The amount of test work is considered appropriate and domaining has been based on identifying weathered, transitional and fresh mineralisation from logging data. Average recovery for the sulphide ore across the Simberi deposits is 90%.</li> <li>Iron and Sulphur values are included in the resource model and metallurgical recovery equations.</li> <li>The existing oxide operation allows access to oxide, transition and fresh ore for testwork and analysis.</li> <li>Simberi ore is not defined by a specification, although sulphide concentrate value will be determined by meeting a gold grade specification, which is accounted for in calculations.</li> </ul>
<b>Environmental</b>	<ul style="list-style-type: none"> <li>SGCL holds two environmental permits. One for the extraction of water and one for the carrying out of work and the discharge of waste material, of which the latter was amended in June 2022 to include sulphide mining activities. Together these two permits form the environmental legislative basis in which SGCL operates.</li> <li>Compliance with these conditions is continuously monitored and reported on in Quarterly Environment Performance Reports, which are submitted to the National Government Department of Conservation Environment and Protection Authority.</li> <li>In addition, SGCL maintains an Environment Permit for Exploration relating to Waste Discharge (Environment Permit WDL-2A(65)).</li> </ul>
<b>Infrastructure</b>	<ul style="list-style-type: none"> <li>All of the infrastructure required for the existing oxide mining and processing operation is in place and consists of: <ul style="list-style-type: none"> <li>the oxide processing plant and process plant buildings, administration offices, training rooms, assay laboratory, site security buildings, ablution and stores</li> <li>Plant maintenance workshop facilities, light fuel oil diesel generators, water supply, mobile communication tower,</li> <li>Surface roads and communications, core shed, accommodation and camp facilities, airstrip, and wharf.</li> </ul> </li> <li>Sulphide ore processing additional infrastructure to be built includes: <ul style="list-style-type: none"> <li>Sulphide processing plant</li> <li>Additional light fuel oil diesel generators and water supply</li> <li>Additional haul roads and expanded accommodation and camp facilities</li> <li>New wharf to export concentrate shipments to market</li> </ul> </li> </ul>
<b>Costs</b>	<ul style="list-style-type: none"> <li>Capital cost estimates were derived from the Feasibility Study (AACE Class 3 Study).</li> <li>Operating costs for the oxide operation were derived from the SGCL budget forecast process, which is based on historical performance and forecast changes. Mining operating costs for the sulphide project were developed by AMC from first principles and current operating costs. Processing operating costs were derived from the Feasibility Study (AACE Class 3 Study).</li> <li>No financial penalty results from arsenic levels in the concentrate.</li> <li>Exchange rates were provided by SGCL, although all costs and revenues are estimated in US dollars.</li> <li>Gold doré bars are transported by a dedicated service provider from the gold room to final destination at the ABC Refinery in Sydney. Armoured vehicles are used from start to end of shipment process. Transportation and refining charges for doré are based on current contracts and for concentrate on estimates provided by SGCL.</li> <li>Royalties have been included for the Memorandum of Agreement (MOA) benefit holders of 3% and the Mineral Resources Authority (MRA) levy of 0.5% of gold and silver produced. The mine planning work was undertaken using a combined MOA and MRA royalty of 3%. This was subsequently updated to a total of 3.5% in the economic evaluation.</li> </ul>
<b>Revenue Factors</b>	<ul style="list-style-type: none"> <li>Gold is sold on an \$A basis with a call option of \$US sales. A gold price of US\$2000/oz for doré produced and gold in concentrate produced from the sulphide processing plant. A silver price of US\$20/oz was used for doré produced from oxide, transitional and sulphide ore processed and silver in concentrate produced.</li> <li>Payability of 91% of gold in concentrate was used by AMC for dilution modelling and pit optimisation guided from the previous Ore Reserve estimate. This was updated based on a sliding payability scale for gold grade in concentrate provided by SGCL in the economic evaluation based on the expected concentrate grade from strategic scheduling. Payability of 90% of silver in concentrate was used by AMC for strategic scheduling and subsequently adjusted in the economic evaluation for periods where the expected concentrate grade fell below the minimum payability threshold of 30 g/t silver in concentrate.</li> </ul>
<b>Market Assessment</b>	<ul style="list-style-type: none"> <li>Gold and silver in doré and gold and silver concentrate is readily traded on an open and transparent basis. Supply and demand is not expected to be significantly different in the timeframe in which the project operates.</li> </ul>



Criteria	Comments
	<ul style="list-style-type: none"> <li>Forecasts assume that supply will be readily taken up by the market, as it has over a long period. SGCL has completed numerous marketing studies to determine representative charges and payable rates. Concentrate is expected to be sold in the Asian market.</li> </ul>
<b>Economic</b>	<ul style="list-style-type: none"> <li>Costs are discussed in the costs section and metal prices in the revenue factors section. No escalation is assumed, except as discussed under revenue factors. Economic evaluation is on a discounted (8%) basis.</li> <li>The financial model demonstrates the mine has a positive net present value with all operating and capital costs included and sensitivity analysis demonstrates a robust project.</li> </ul>
<b>Social</b>	<ul style="list-style-type: none"> <li>There are two community agreements which set the guidelines for community relations at Simberi: <ul style="list-style-type: none"> <li>The Memorandum of Agreement between SGCL, the national government, New Ireland Provincial Government, Simberi Landowners Association and the Tabar Community Government</li> <li>The Compensation Agreement.</li> </ul> </li> </ul>
<b>Other</b>	<ul style="list-style-type: none"> <li>Naturally occurring risks, such as seismic or tsunami activity are considered minimal.</li> <li>SGCL is operating on St Barbara's granted mining lease with all required government and statutory permits and approvals in place until mining lease expiry in December 2028.</li> <li>The projected mine life for the Simberi operation is 2038, which is beyond the expiration date of the current mine lease. An application for the early extension of the Mining Lease renewal that would extend the lease to 2038 was submitted in 2024 and the Warden's hearing for the renewal was held in April 2025. The outcome of the renewal application is pending but there are reasonable grounds to expect a mining lease extension would be granted to cover the sulphide mining operations.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>Modifying Factors are considered by the Competent Person to be at a high level of accuracy and the classification of the Mineral Resource was used as a guide for classification of the Ore Reserve.</li> <li>Existing stockpile material is classified as Proved Ore Reserve.</li> <li>The Competent Person believes the classification of the Ore Reserves appropriately reflects the Simberi deposit.</li> <li>No Probable Ore Reserves were derived from Inferred Mineral Resources.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>No audits or reviews have been conducted on the Ore Reserve.</li> <li>AMC has undertaken peer reviews of various the aspects of Simberi mine planning for the FEED Study and various SGCL budget forecasts.</li> </ul>
<b>Discussion of relative accuracy/ confidence</b>	<ul style="list-style-type: none"> <li>The confidence levels as expressed in the Mineral Resources estimates were accepted in the respective Ore Reserves classification categories. The estimates relate to global estimates in the conversion of Mineral Resources to Ore Reserves, due largely to spacing of the drill data on which the estimates are based relative to the intended local selectivity of mining operations.</li> <li>The oxide Ore Reserve is part of an established mine which has been in operation in its current form since 2013, and as such the level of confidence is high. Operating practices of the grade control system have matured as the mining operation has advanced through the various alteration states.</li> <li>Modifying Factors were developed from current mine performance data and PFS level Plant Layout Study and FS level FEED Study estimates. The Competent Person considers that Modifying Factors are reasonable and provide confidence in the Ore Reserve. Metal price assumptions are subject to market forces and present an area of uncertainty.</li> <li>The Competent Person considers that there are reasonable grounds to anticipate all relevant legal, environmental, and social approvals to operate will continue to be granted within the LOM timeframe.</li> <li>Reconciliation analysis has shown a reasonable, although variable over time, match between Ore Reserve and mill production results.</li> </ul>