



## Ore Reserves and Mineral Resources Statements as at 30 June 2014

### Ore Reserves at 30 June 2014: 69.1 Mt @ 2.3 g/t Au for 5.16 million ounces of contained gold

- > Ore Reserves decreased by a net 0.08 million ounces (Moz) from the 30 June 2013 estimate to 5.16 Moz.
- > Gwalia Ore Reserves increased by a net 0.16 Moz to an estimated 7.3 million tonnes (Mt) @ 8.2 grams per tonne of gold (g/t Au) for 1.91 Moz of contained gold (1.75 Moz at June 2013), representing an indicative mine life at current mining rates of at least 9 years.
- > The Gwalia ore body remains open at depth, particularly South West Branch lode, with potential within the planned mining interval to add to Mineral Resources in both the South Gwalia Series and West Lodes.

### Company Summary at 30 June 2014

- > **Total Ore Reserves are estimated at:** **69.1 Mt @ 2.3 g/t Au for 5.16 Moz of contained gold, comprising:**
  - > Leonora Operations: 10.3 Mt @ 6.9 g/t Au for 2.28 Moz of contained gold
  - > Simberi Operations: 44.2 Mt @ 1.6 g/t Au for 2.21 Moz of contained gold
  - > Gold Ridge Operations: 14.6 Mt @ 1.4 g/t Au for 0.67 Moz of contained gold
- > **Total Mineral Resources are estimated at:** **209.4 Mt @ 2.0 g/t Au for 13.16 Moz of contained gold, comprising:**
  - > Leonora Operations: 21.6 Mt @ 6.6 g/t Au for 4.61 Moz of contained gold
  - > Simberi Operations: 123.6 Mt @ 1.4 g/t Au for 5.38 Moz of contained gold
  - > Gold Ridge Operations: 64.2 Mt @ 1.5 g/t Au for 3.18 Moz of contained gold

The 30 June 2014 Ore Reserves and Mineral Resources Statements are attached.



**Bob Vassie**  
 Managing Director and CEO

## Mineral Resources Statement as at 30 June 2014

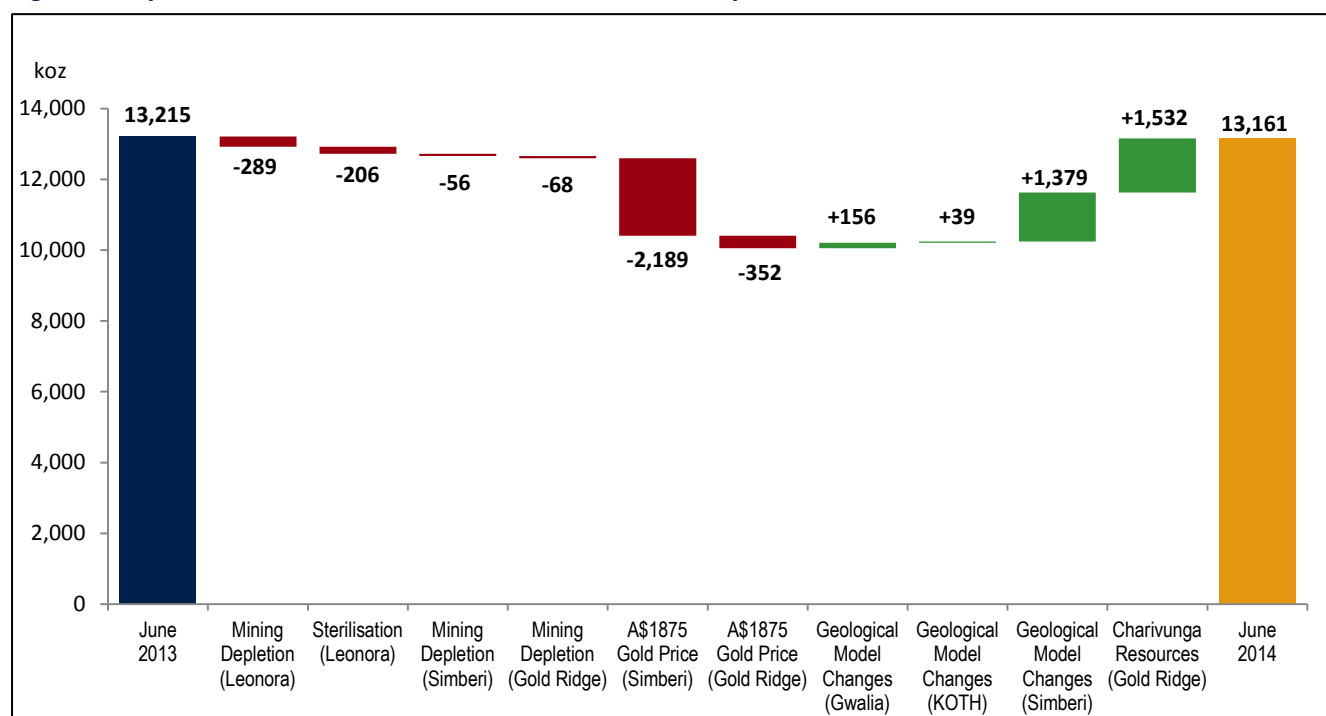
The Company's total Measured, Indicated and Inferred Mineral Resources as at 30 June 2014 are **209.4 million tonnes (Mt) @ 2.0 grams per tonne of gold (g/t Au) containing 13.16 million ounces of gold (Moz)** (refer Table 1). The previous publicly reported estimate of Mineral Resources was 268.4 Mt @ 1.5 g/t Au containing 13.22 Moz of gold as at 30 June 2013.

The primary movements in the Mineral Resource inventory during the 2014 financial year were realised through:

- > constraining the Simberi and Gold Ridge Mineral Resources with a gold price of A\$1,875 per ounce
- > revision of the geological model resulting in an increase in the Simberi Mineral Resource and further drilling leading to an increase in the Charivunga (Gold Ridge) Mineral Resource.

Details of these and other changes resulted in a net reduction in Mineral Resources of 0.06 Moz of contained gold, illustrated in Figure 1 and explained further below.

**Figure 1: Major sources of variance to Mineral Resource Inventory between FY13 and FY14**



## Mineral Resources Statement as at 30 June 2014

**Mining Depletion (Leonora Ops)** - A total of 289,000 ounces of gold has been depleted from the Company's Operations at Leonora - 219,000 ounces from Gwalia and 70,000 ounces from King of the Hills.

**Sterilisation (Leonora Ops)** – A total of 206,000 ounces of gold has been depleted from the in situ resources at both Gwalia (139,000 ounces) and King of the Hills (67,000 ounces) that, due to mining infrastructure, is unlikely to be able to be recovered. At Gwalia this is largely remnant mineralisation around the margins of mined and paste-filled stopes, and at King of the Hills is remnant mineralisation contained in pillars and in the 'exclusion zone' between the open pit floor and the top of underground workings.

**Mining Depletion (Simberi & Gold Ridge)** – The Simberi mineral inventory has been depleted by 56,000 ounces through mining and the Gold Ridge inventory by 68,000 ounces.

**A\$1,875/oz Gold Price (Simberi & Gold Ridge)** – The Simberi and Gold Ridge mineral resources were reported unconstrained in 2013, however the JORC (2012) Code requires a Mineral Resource to have 'reasonable prospects for economic extraction'. The Company practice for ensuring that open pit resources are reported in accordance with the JORC code has been to constrain the resource estimate by an optimal pit shell generated using the same cost and slope parameters as Ore Reserves, but with a 50% higher gold price. This has proven to be an effective method of removing discontinuous or deep mineralisation that is unlikely to be mineable.

By constraining the Simberi Mineral Resource within a A\$1,875/oz pit shell the oxide resource has been reduced by 109,000 ounces and the sulphide resource by 2,080,000 ounces, for a total reduction of 2,189,000 ounces. The Gold Ridge resource has been reduced by 352,000 ounces.

**Geological Model Changes (Gwalia)** – Resource development and grade control drilling completed from the 1440 drill drive to 1,580 metres below surface has driven minor changes to local geological models on all lodes and has also identified extensions to the South Gwalia Series and West Lode. In addition the drilling has confirmed the location and extent of a new lode – South West Branch 2. The net effect of these changes is an increase to the resource of 156,000 ounces.

**Geological Model Changes (King of the Hills)** - Resource development and grade control drilling coupled with continuous improvement of the geological model across both the Eastern and Western flanks has added 39,000 ounces to the King of the Hills resource.

**Geological Model Changes (Simberi)** - An updated geological model and structural interpretation was completed for Simberi Island in 2014, based on mapping completed by Dr Sarah Jones and previous staff. This work was the basis for improvements in the geological models for the Sorowar, Pigiput and Pigibo deposits. A lithological control separating lower grade intrusive hosted gold mineralisation from higher grade breccia hosted gold mineralisation has been defined, and estimation search parameters were modified to reflect structural controls identified by the study. In addition, metallurgical test work found that transitional material, which was previously reported as part of the sulphide resource, has recoveries of around 75% - closer to oxide recoveries than sulphide. As a consequence transitional material is now reported as part of the oxide resource.

By constraining gold mineralisation based on lithology and reporting transitional material as part of the oxide resource the oxide resource has increased by 641,000 ounces. The inclusion of lithological controls and removal of transitional material from the sulphide resource resulted in an overall increase of the sulphide resource by 738,000 ounces.

**Charivunga Resource (Gold Ridge)** – Following the completion of in-fill resource definition drilling a resource estimate for the Charivunga deposit was completed in 2014. This has added 1,532,000 ounces to the Gold Ridge mineral inventory.

## Mineral Resources Statement as at 30 June 2014

Table 1: Mineral Resource Summary June 2014

Region	Category	Measured			Indicated			Inferred			Total		
		Tonnes (k)	Au g/t	k oz	Tonnes (k)	Au g/t	k oz	Tonnes (k)	Au g/t	k oz	Tonnes (k)	Au g/t	k oz
Leonora	Gwalia	5,258	7.0	1,188	6,325	9.4	1,917	2,560	5.9	484	14,143	7.9	3,589
	King of the Hills	-	-	-	1,283	6.7	278	3	10.4	1	1,286	6.7	279
	Tower Hill	-	-	-	4,604	3.9	574	489	3.3	51	5,093	3.8	625
	Kallis	-	-	-	1,040	3.2	108	35	4.8	6	1,075	3.3	114
<b>Total Leonora</b>		<b>5,258</b>	<b>7.0</b>	<b>1,188</b>	<b>13,252</b>	<b>6.8</b>	<b>2,877</b>	<b>3,087</b>	<b>5.5</b>	<b>542</b>	<b>21,597</b>	<b>6.6</b>	<b>4,607</b>
Simberi Oxide	Bekou (Oxide)	-	-	-	56	1.5	3	98	1.1	3	154	1.2	6
	Botlu (Oxide)	-	-	-	2,182	1.1	75	464	1.1	17	2,647	1.1	92
	Scats stockpiles (Oxide)	593	0.9	17	-	-	-	-	-	-	593	0.9	17
	Pigiput/Pigibo (Oxide)	4,086	1.0	131	16,136	1.0	533	6,729	1.0	208	26,952	1.0	873
	Pigicow (Oxide)	-	-	-	163	1.6	8	346	1.3	15	509	1.4	23
	Samat (Oxide)	-	-	-	406	1.4	18	974	0.9	30	1,380	1.1	47
	Sorowar(Oxide)	3,582	1.3	151	12,114	1.1	425	2,284	0.8	60	17,980	1.1	637
<b>Total Simberi Oxide</b>		<b>8,261</b>	<b>1.1</b>	<b>299</b>	<b>31,056</b>	<b>1.1</b>	<b>1,062</b>	<b>10,896</b>	<b>0.9</b>	<b>332</b>	<b>50,213</b>	<b>1.1</b>	<b>1,694</b>
Simberi Sulphide	Bekou (Sulphide)	-	-	-	23	2.0	2	588	1.5	29	611	1.5	30
	Botlu ( Sulphide)	-	-	-	4,257	1.5	208	4,407	1.2	172	8,664	1.4	380
	Pigibo (Sulphide)	-	-	-	-	-	-	-	-	-	-	-	-
	Pigiput/Pigibo (Sulphide)	8	0.8	0	32,826	1.8	1,855	20,634	1.5	965	53,468	1.6	2,821
	Pigicow(Sulphide)	-	-	-	-	-	-	480	1.5	23	480	1.5	23
	Samat (Sulphide)	-	-	-	3,015	1.6	156	2,521	1.1	90	5,536	1.4	246
	Sorowar(Sulphide)	777	1.2	29	2,457	1.1	89	1,424	1.5	67	4,658	1.2	185
<b>Total Simberi Sulphide</b>		<b>784</b>	<b>1.0</b>	<b>29</b>	<b>42,577</b>	<b>1.7</b>	<b>2,311</b>	<b>30,054</b>	<b>1.4</b>	<b>1,346</b>	<b>73,416</b>	<b>1.6</b>	<b>3,686</b>
Gold Ridge	Valehaichichi	435	1.3	18	3,118	1.3	128	867	1.5	41	4,420	1.3	187
	Namachamata	166	2.0	11	457	1.7	24	146	1.4	6	768	1.7	41
	Kupers	2,640	1.5	127	7,662	1.2	291	3,004	1.3	126	13,306	1.3	544
	Charivunga	-	-	-	8,437	1.5	410	16,905	2.1	1,120	25,342	1.9	1,530
	Dawsons	1,056	1.4	48	15,932	1.3	666	2,895	1.6	149	19,883	1.4	863
	Stockpile	443	0.7	10	-	-	-	-	-	-	443	0.7	10
<b>Total Gold Ridge</b>		<b>4,740</b>	<b>1.4</b>	<b>214</b>	<b>35,606</b>	<b>1.3</b>	<b>1,519</b>	<b>23,817</b>	<b>1.9</b>	<b>1,442</b>	<b>64,162</b>	<b>1.5</b>	<b>3,175</b>
<b>Total All Areas</b>		<b>19,043</b>	<b>2.8</b>	<b>1,730</b>	<b>122,492</b>	<b>2.0</b>	<b>7,769</b>	<b>67,854</b>	<b>1.7</b>	<b>3,662</b>	<b>209,390</b>	<b>2.0</b>	<b>13,161</b>

## Mineral Resources Statement as at 30 June 2014

### Notes to Table 1:

1. Mineral Resources are reported inclusive of Ore Reserves.
2. Cut-off Grades Leonora: Gwalia (2.5 g/t Au), King of The Hills (3.0 g/t Au), Tower Hill (2.5 g/t Au), Kailis (0.8 g/t Au).
3. Cut-off Grade Simberi Oxide (0.4 g/t Au).
4. Cut-off Grade Simberi Sulphide (0.6 g/t Au).
5. Cut-off Grade Gold Ridge (0.5 g/t Au).
6. Details relating to each of the estimates are contained in the St Barbara Ltd Annual Mineral Resource Report which is available at [www.stbarbara.com.au](http://www.stbarbara.com.au).
7. Data is rounded to thousands of tonnes and thousands of ounces. Discrepancies in totals may occur due to rounding.

### 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 Member of The Australasian Institute of Mining and Metallurgy. Ms 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". Ms Bateman consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

The Competent Persons who have completed work on each of the mines or deposits are as follows:

- > Gwalia and King of the Hills Mines – Mr Robert Love (FAusIMM)
- > Kailis and Tower Hill Deposits – Ms Jane Bateman (MAusIMM)
- > Simberi Mine – Mr Wayne Lind (MAusIMM)
- > Gold Ridge Mine – Mr Kevin Crossling (MAusIMM)

## Ore Reserves Statement as at 30 June 2014

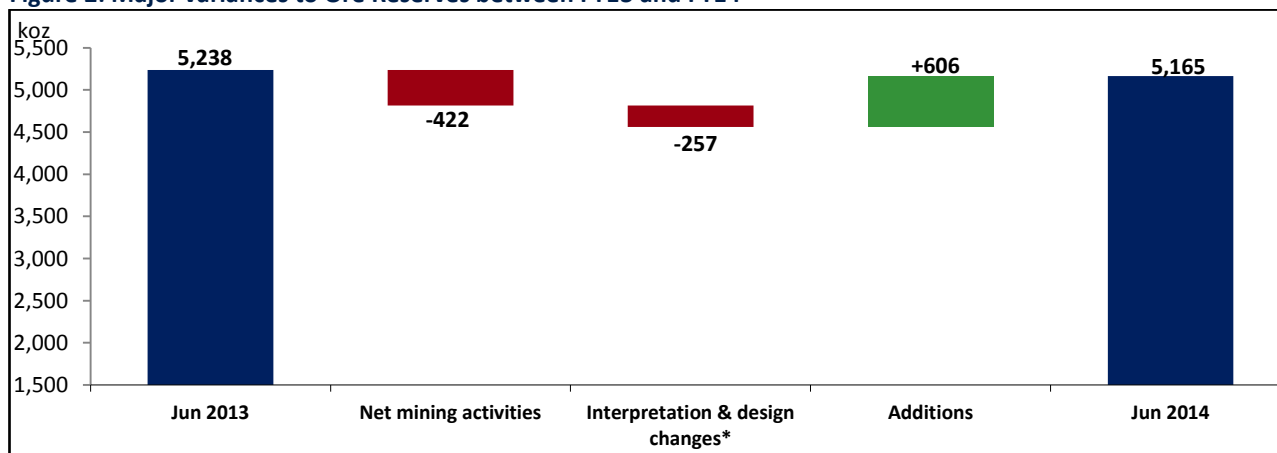
As at 30 June 2014, the Company's Proved and Probable Ore Reserves are estimated to be **69.09 million tonnes (Mt) at 2.3 grams per tonne of gold (g/t Au) containing 5.16 million ounces (Moz)** (refer Table 2). The previously reported Reserve in 2013 was 77.84 Mt @ 2.1 g/t Au for 5.24 Moz of contained gold. Ore Reserves are located at Gwalia, King of the Hills, Tower Hill in Western Australia, Simberi in Papua New Guinea and Gold Ridge in Solomon Islands. This represents a net decrease of 0.08 Moz over the June 2013 estimate.

The 2014 Ore Reserve estimates are based on the following assumptions:

- A gold price of A\$1,250 per ounce (real) has been applied to all mines, except King of the Hills, where the FY15 gold price estimate of A\$1,390/oz has been applied consistent with the current estimated mine life of one year.
- Gwalia has an updated Life of Mine plan. This includes updates to the Resource model, geotechnical, ventilation and paste models, and addresses depletion which has not been resolved since commencing the Deeps project.
- King of the Hills Ore Reserve life is one year as at 30 June 2014, and with the deposits open at depth. There is a high level of confidence in the geological control of the site.
- Tower Hill estimates are rolled over from FY13.
- Gold Ridge is reported with a general qualification that while the Mineral Resource is economic based on the on-going mine plan, Gold Ridge Mining Limited (GRML) issued force majeure notices in April and August 2014 under the Mining Agreement and operations remain suspended. Two of the contributing factors outside of GRML's control require the active management and involvement of the Solomon Islands Government to address. They are:
  - Continuing interruption to properly engineered access to the Tinahulu Bridge on the public site access road;
  - The presence of several hundred illegal miners encamped in the open pit mining areas.
- New Resource model for Simberi excludes lower grade material, increasing Reserve grades.
- Based on metallurgical test work undertaken as part of the Simberi Sulphide work, Simberi transition material has been reclassified to leach feed and is now scheduled to be included as part of the oxide campaign.
- Simberi Sulphide study work has considered alternative oxidation options, however, it is not yet at a Pre-Feasibility level of confidence. Consequently the sulphide Ore Reserve estimates are based on the 2011 Allied Gold Limited Pre-Feasibility Study.

Ore Reserve depletion and addition are illustrated in Figure 2.

**Figure 2: Major variances to Ore Reserves between FY13 and FY14**



\* Changes include Geology, Design and Factor Changes

## Ore Reserves Statement as at 30 June 2014

Table 2: June 2014 Ore Reserve Summary

Region	Project	Proved			Probable			Total		
		kt	Au g/t	koz	kt	Au g/t	koz	kt	Au g/t	koz
Leonora	Gwalia	2,020	8.8	569	5,257	8.0	1,345	7,277	8.2	1,914
	Tower Hill*	-	-	-	2,572	3.7	306	2,572	3.7	306
	King of the Hills	-	-	-	449	4.4	63	449	4.4	63
	<b>Total Leonora</b>	<b>2,020</b>	<b>8.8</b>	<b>569</b>	<b>8,278</b>	<b>6.4</b>	<b>1,714</b>	<b>10,298</b>	<b>6.9</b>	<b>2,283</b>
Simberi	Sorowar	3,539	1.0	108	7,420	1.4	324	10,959	1.2	432
	Pigiput	2,374	0.8	65	19,300	2	1,139	21,674	1.7	1,204
	Pigibo	-	-	-	5,936	1	280	5,936	1.5	280
	Samat	-	-	-	1,303	2	90	1,303	2.2	90
	Botlu	-	-	-	1,996	1.9	120	1,996	1.9	120
	Pigicow	-	-	-	103	2	6	103	1.9	6
	Bekou	-	-	-	1,594	1.2	59	1,594	1.2	59
	Stockpiles	604	0.9	17	-	-	-	604	0.9	17
<b>Total Simberi</b>	<b>6,517</b>	<b>0.9</b>	<b>190</b>	<b>37,653</b>	<b>1.7</b>	<b>2,019</b>	<b>44,170</b>	<b>1.6</b>	<b>2,209</b>	
Gold Ridge	Dawsons	739	1.6	39	6,476	1.5	309	7,215	1.5	348
	Kupers	1,693	1.7	91	2,240	1.3	95	3,933	1.5	186
	Charivunga	61	1.1	2	2,774	1.3	118	2,834	1.3	120
	Valehaichichi	96	1.7	5	95	1.3	4	192	1.5	9
	Namachamata	-	-	-	-	-	-	-	-	-
	Stockpiles	443	0.7	10	-	-	-	443	0.7	10
<b>Total Gold Ridge</b>	<b>3,032</b>	<b>1.5</b>	<b>147</b>	<b>11,584</b>	<b>1.4</b>	<b>526</b>	<b>14,617</b>	<b>1.4</b>	<b>673</b>	
<b>Total All Regions</b>		<b>11,570</b>	<b>2.4</b>	<b>906</b>	<b>57,515</b>	<b>2.3</b>	<b>4,259</b>	<b>69,085</b>	<b>2.3</b>	<b>5,165</b>

## Ore Reserves Statement as at 30 June 2014

### Notes to Table 2:

1. Ore Reserves based on a gold price of A\$1,250/oz for Gwalia, Simberi, Gold Ridge and Tower Hill.
2. Ore Reserves based on a gold price of A\$1,390/oz for King of the Hills consistent with the current estimated mine life of one year.
3. Mineral Resources are reported as inclusive of Ore Reserves.
4. All data is rounded to two significant figures. Discrepancies in summations will occur due to rounding.
5. Details relating to each of the estimates are available as short form reports at [www.stbarbara.com.au](http://www.stbarbara.com.au).

### Competent Persons Statement

The Ore Reserves have been estimated and compiled under the direction of Mr John de Vries. Mr de Vries is a Member of The Australasian Institute of Mining and Metallurgy and a full time employee of St Barbara Limited. Mr de Vries has sufficient experience relevant to the style of mineralisation, type of deposit under considerations and for the activity being undertaken to qualify as a Competent Person as defined by the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore reserves'. Mr de Vries consents to the inclusion in the report of the matters based on the information in the form and context in which it appears. Mr de Vries is entitled to participate in St Barbara's long term incentive plan, details of which are included in the 2013 Annual Report and Notice of 2013 Annual General Meeting released to the ASX on 18 October 2013. Increase in Ore Reserves is one of the performance measures under that plan.