



## Presentation to 15<sup>th</sup> PNG Mining and Petroleum Investment Conference

Tim Richards, General Manager Simberi Operations, will present to the 15<sup>th</sup> Papua New Guinea Mining and Petroleum Investment Conference in Sydney, on Wednesday 5 December 2018.

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TIM RICHARDS, General Manager Simberi Operations / 3-5 December 2018

## PNG Mining & Petroleum Investment Conference



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The Company estimates its reserves and resources in accordance with the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves 2012 Edition (“JORC Code”), which governs such disclosures by companies listed on the Australian Securities Exchange.

*Financial figures are in Australian dollars unless otherwise noted.*

*Financial year is 1 July to 30 June.*

*This presentation published 3 December 2018.*

As at 30 Jun 2018: AUD \$1.00 = USD \$0.74, USD \$1.00 = AUD \$1.35  
AUD \$1.00 = PGK \$2.37, PGK 1.00 = AUD \$0.40  
[www.rba.gov.au](http://www.rba.gov.au)

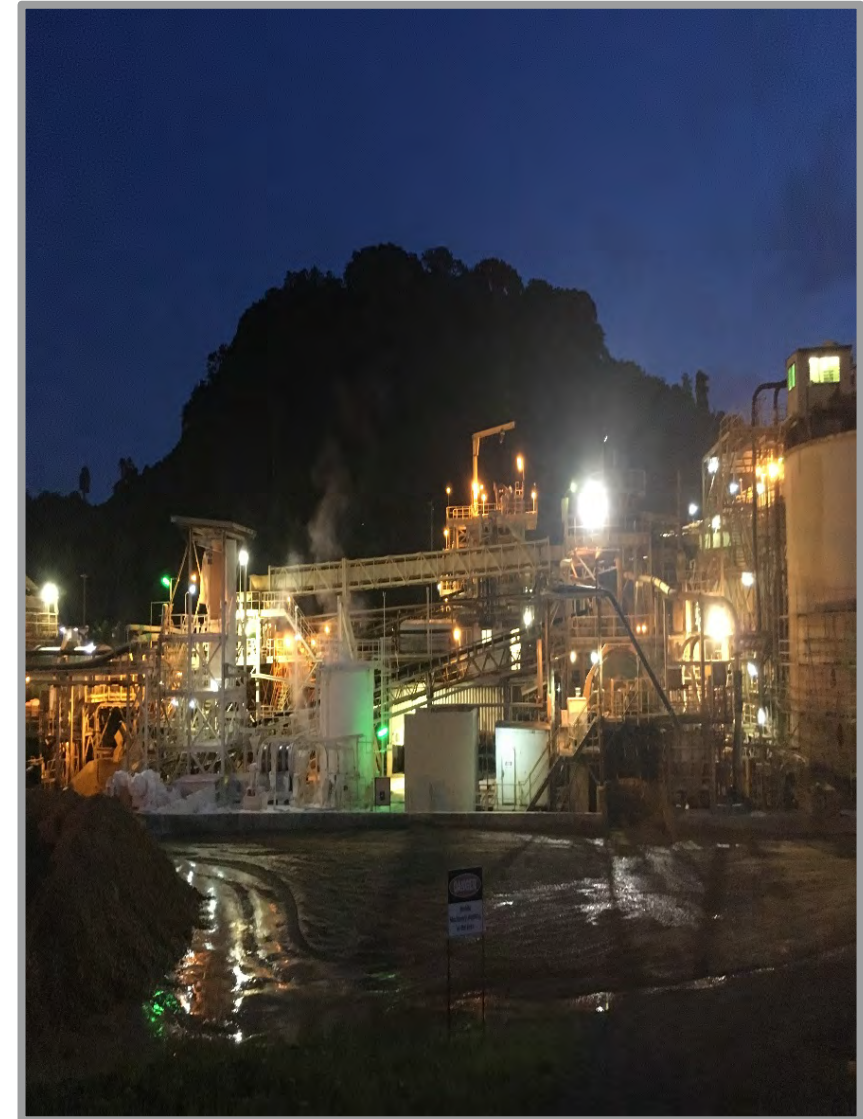


## Overview

## Simberi operations

## Exploration & Growth

## People & Community

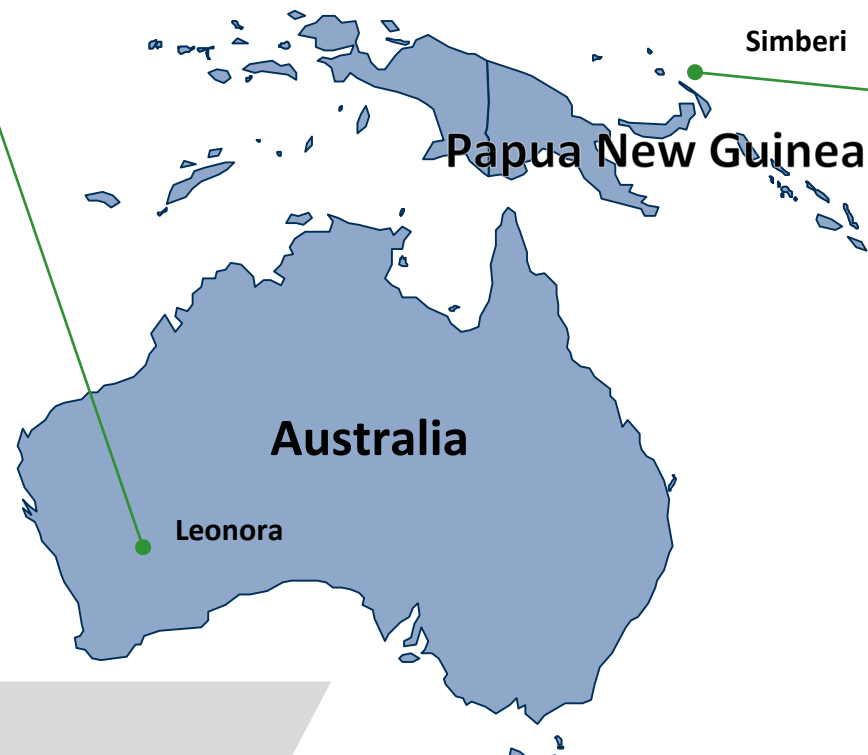


Far left and right: Simberi Processing Plant; Middle: Simberi laboratory



## Leonora

- Gwalia underground mine
- FY18 production 268 koz
- Mine plan to FY31
- Prospective tenements

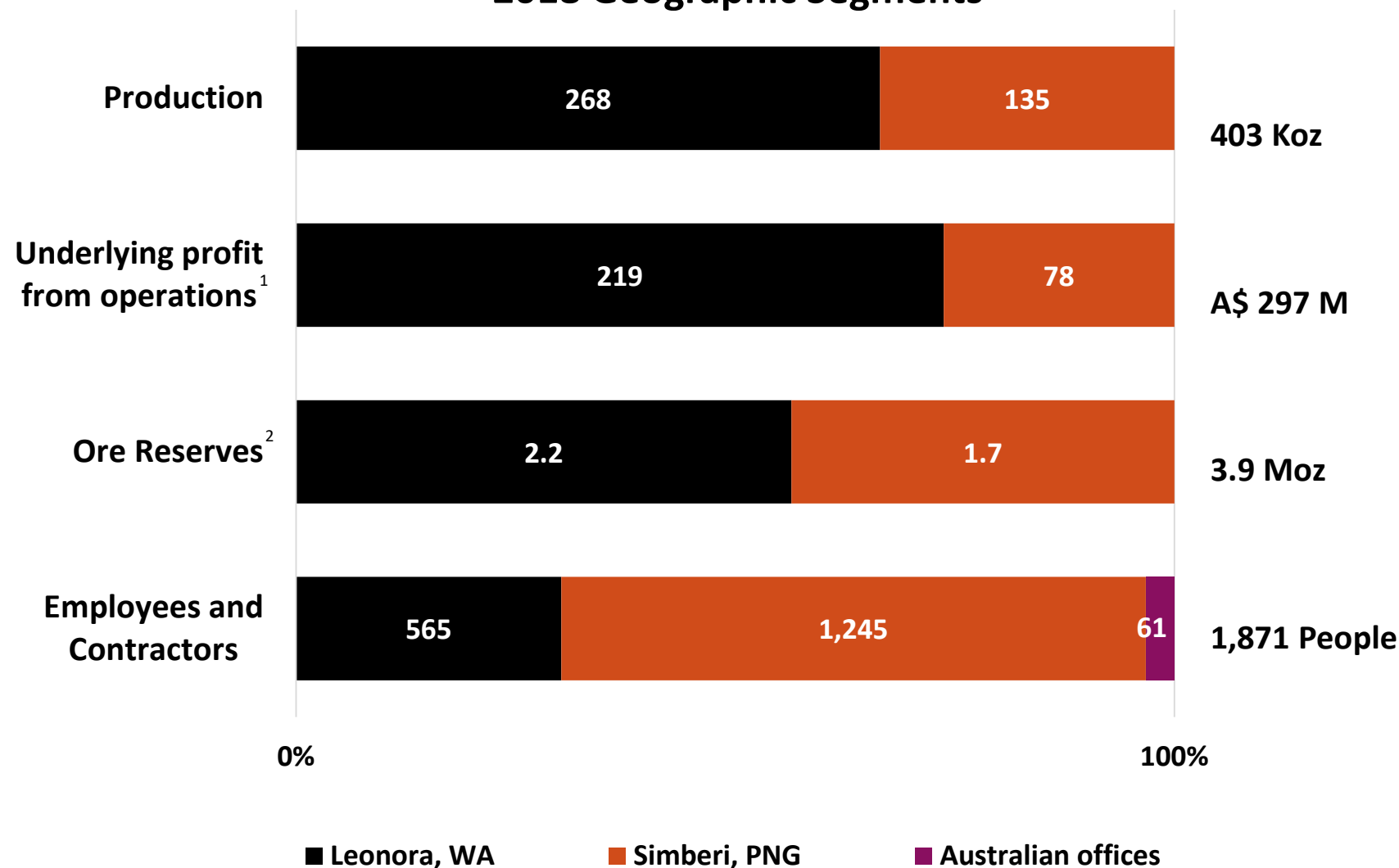


## Simberi

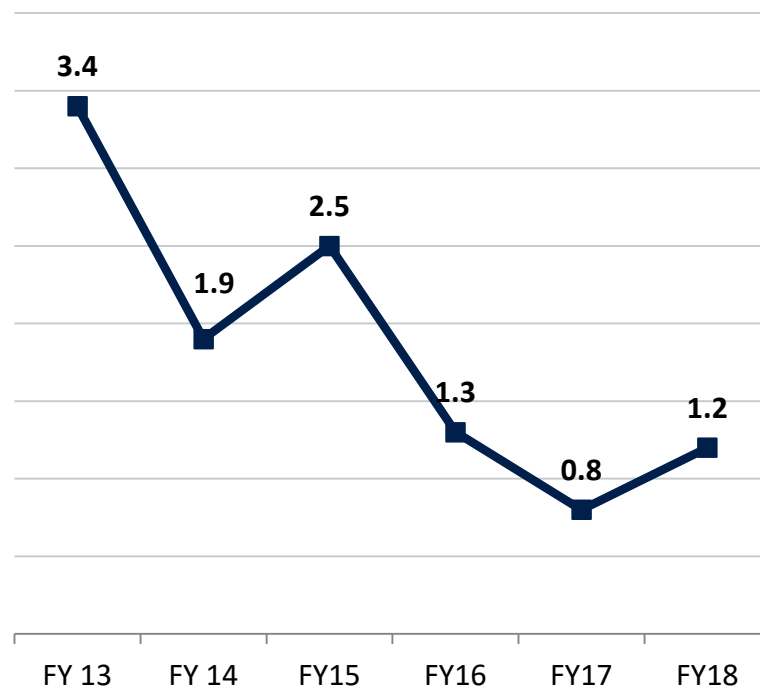
- Open pit mine
- FY18 production 135 koz
- Mine plan to FY21
- Potential for life extension
- Nearby exploration



## 2018 Geographic Segments



## Total Recordable Injury Frequency Rate<sup>1</sup>

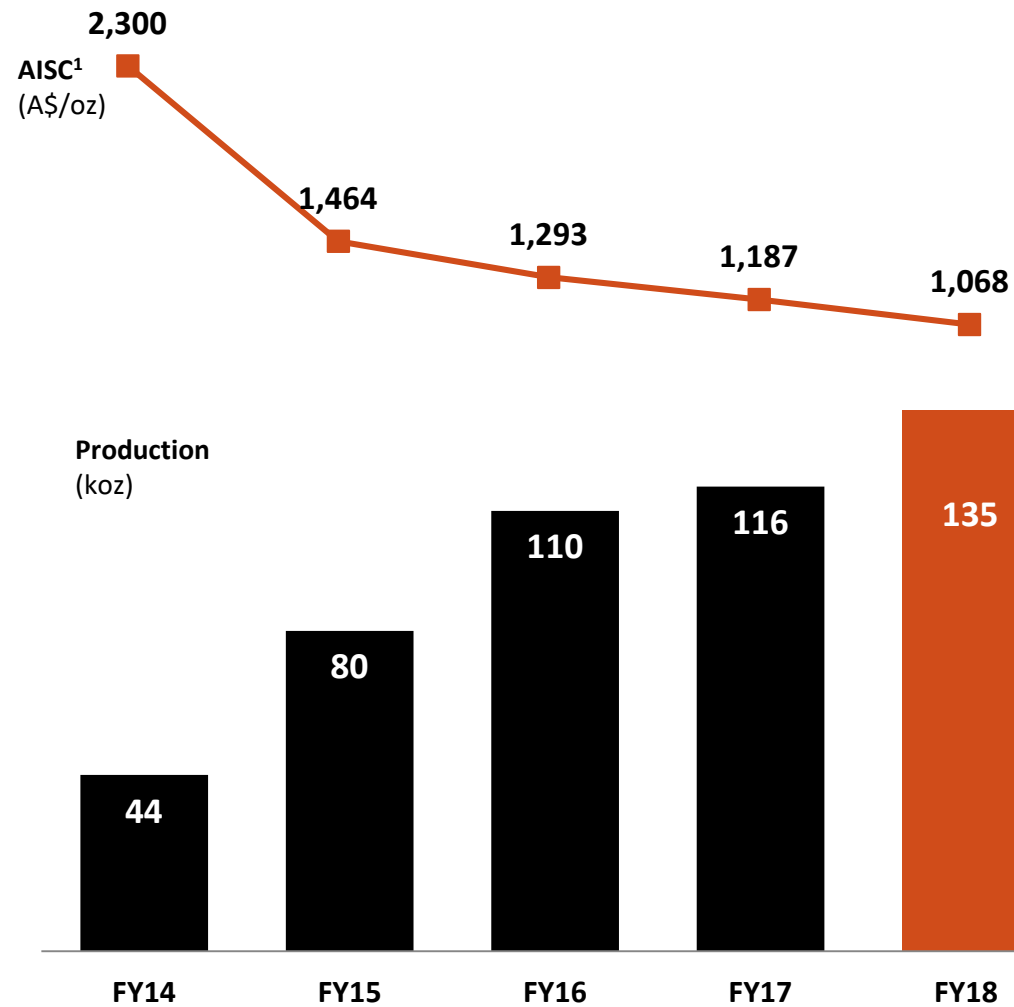


- TRIFR corresponds to 3 low range injuries in last 12 mths
- Corresponding LTIFR (lost time/ 'serious' injury frequency rate) of 0.8 to 30 June 2018



Thomas Garret (Paramedic and ERT Co-ordinator), visiting Maragon Village clinic, Simberi Island PNG

# Simberi Production and Cost Profile







Boats for Exploration logistics, Tatau Island PNG – June 2018, Mt Banesa, site of Cu-Au drilling in FY19 in background.





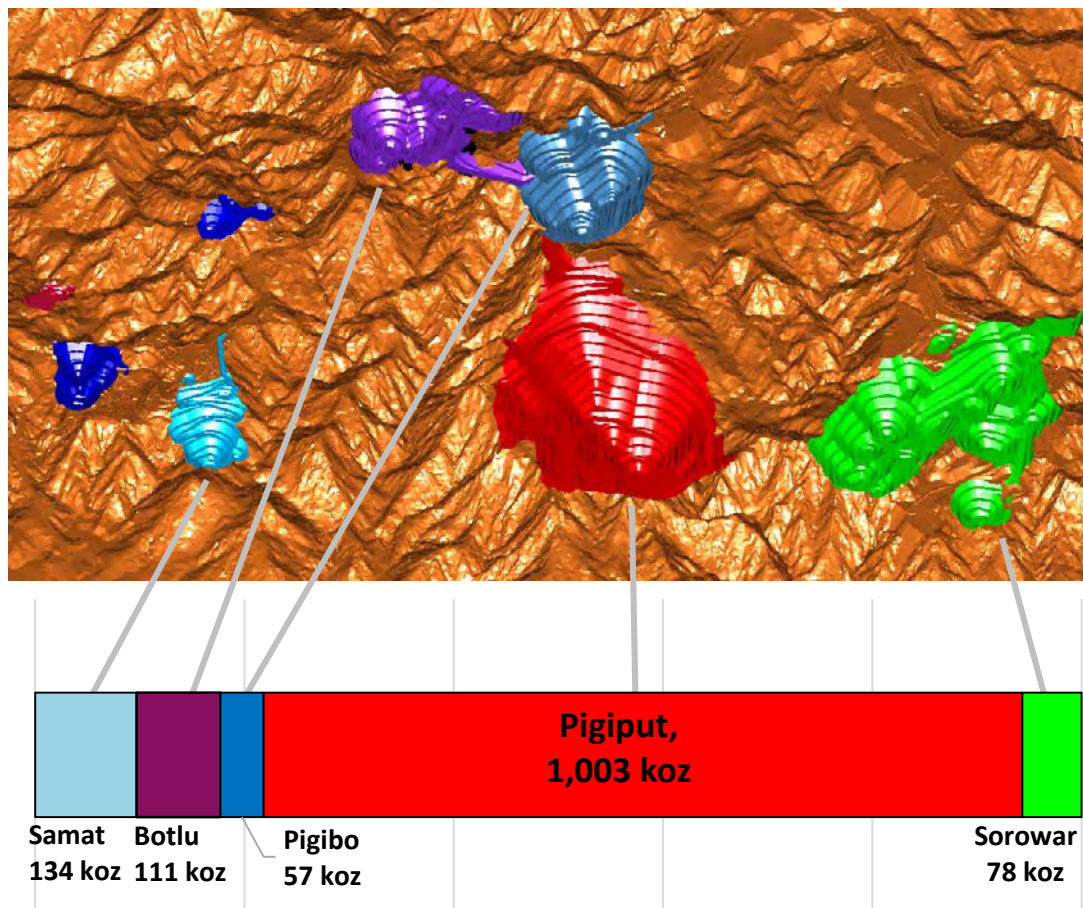
## Simberi Island

- Sulphide drilling beneath Sorowar pit
- Testing for copper-gold porphyry deposits at depth below Pigiput pit

## Tatau and Big Tabar Islands

- Completed drilling copper-gold porphyry targets on Tatau at Talik North and Kupo prospects as part of the Newcrest Option and Farm-in
- Preparations are underway to complete two drill holes at the Banesa copper – gold porphyry prospect on Big Tabar Island

## Modelled ultimate pit shells<sup>1</sup> with associated sulphide reserves

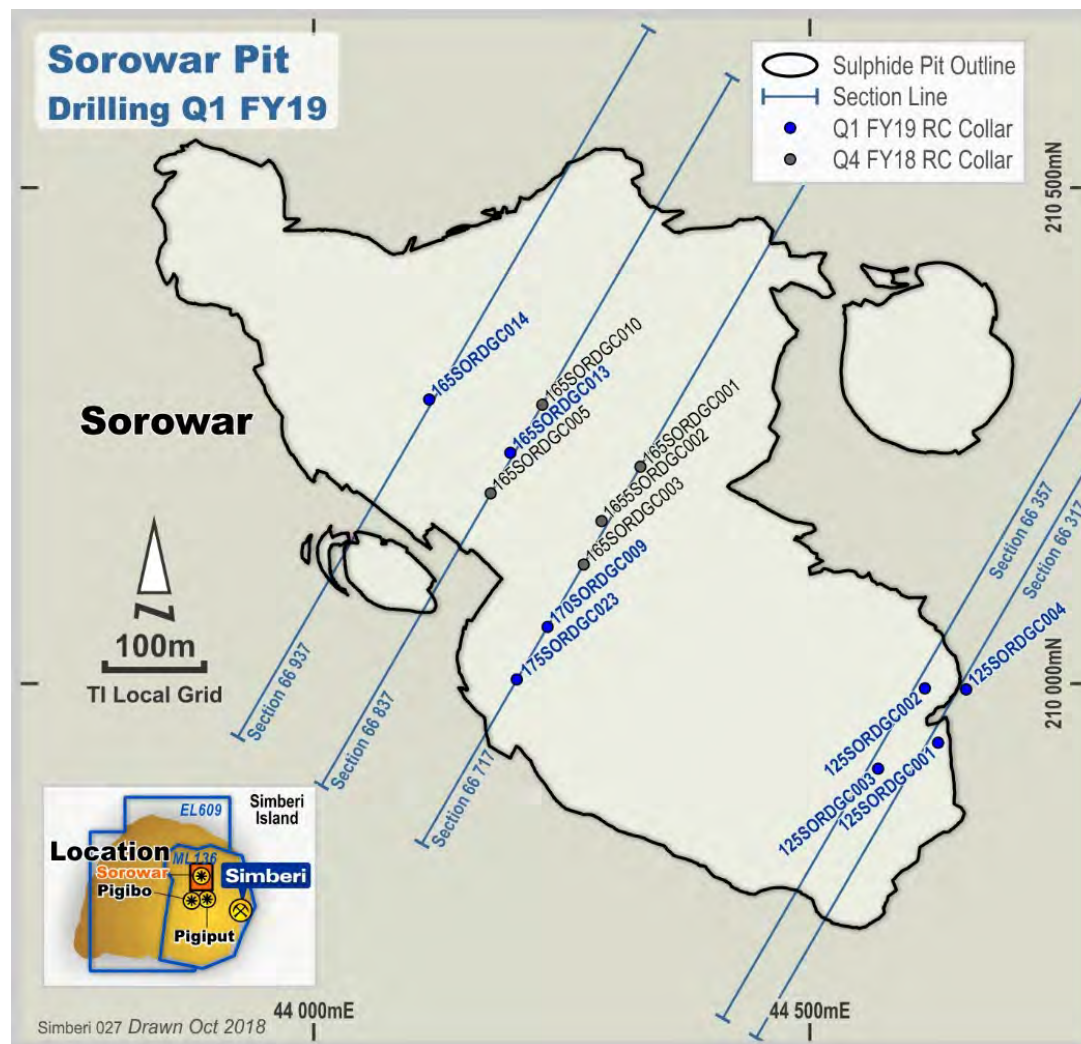


Distribution of 1.4 Moz Sulphide Reserve

**1.4 Moz Sulphide Reserve @ 3.5 g/t Au,**  
**3.1 Moz Sulphide Resource @ 1.8 g/t Au <sup>2</sup>**

- Focused exploration for sulphide ore underway to improve project economics
- Sorowar not drilled at depth previously
- 19,000 m completed to date
- Sorowar drill results to date indicate high grade sulphide gold present<sup>3</sup>





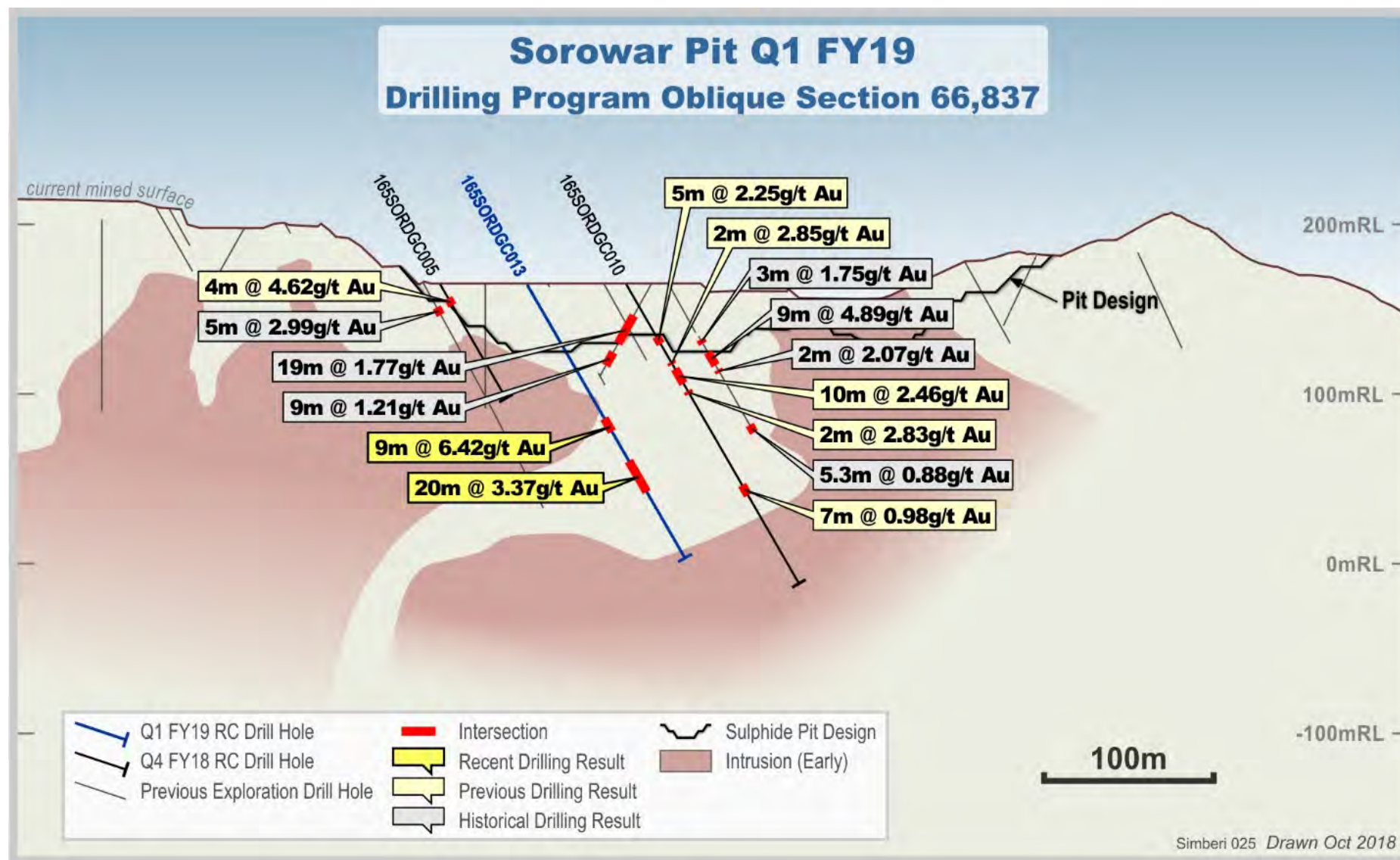
## Sorowar Pit

Best intersections include  
(all results downhole):

125SORDGC003:  
33 m at 5.67 g/t Au from 55 m

165SORDGC013:  
9 m at 6.42 g/t Au from 91 m

165SORDGC014:  
7 m at 5.45 g/t Au from 157 m, EOH



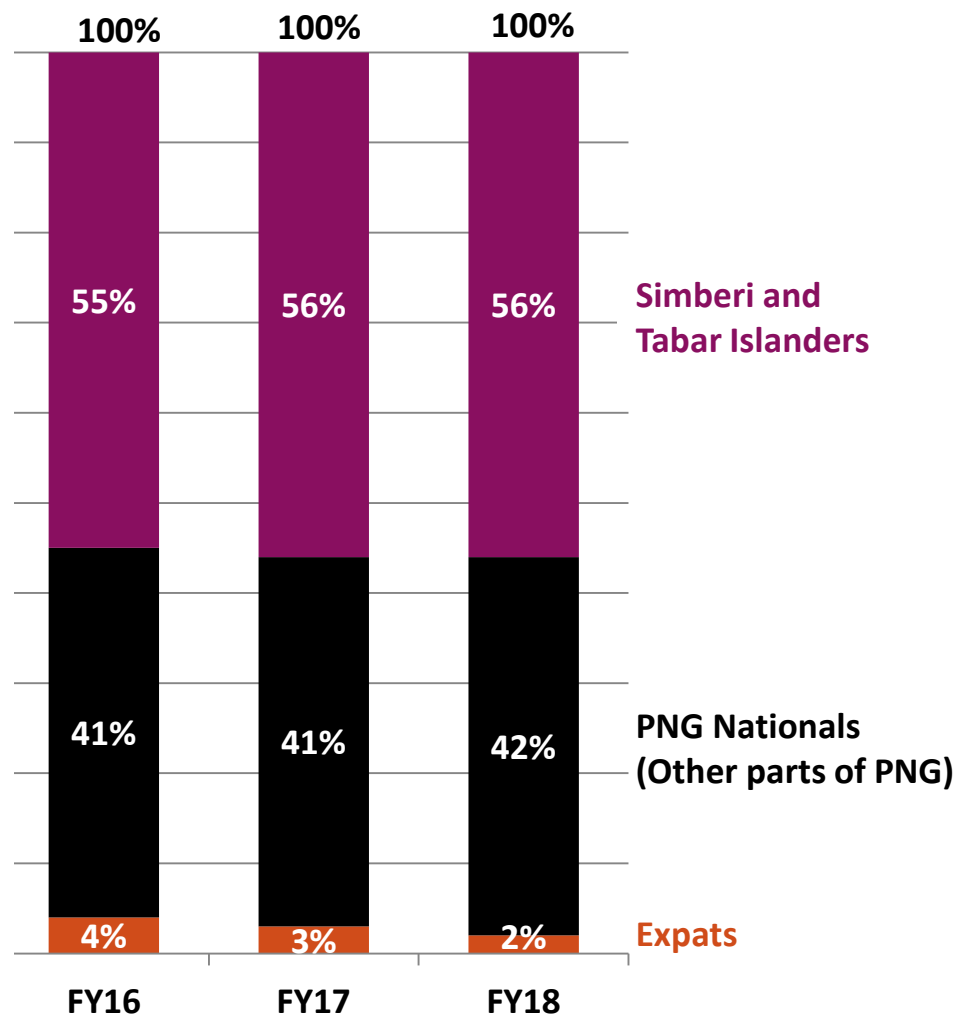




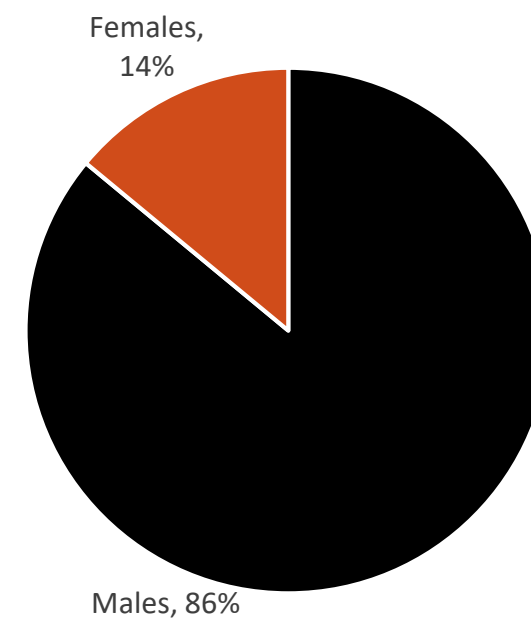
Left: Steven Rangnag. Centre Top: John Abraham Rupa. Centre Bottom Left: Eric Casper Dako, Right: Gerard Gulung. Right: Cathy Andrew. All Simberi, PNG 2018



## Simberi employees diversity



## Simberi gender diversity



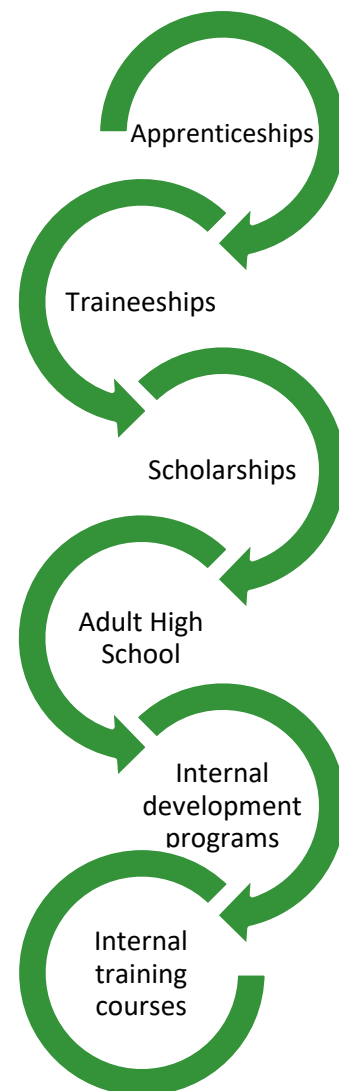
## Commitment to upskilling our workforce

A\$0.7 million spent on training in 2018

- 19 employees enrolled in apprenticeships.
- 3 employees appointed as qualified tradespeople
- 13 students were offered Work Experience
- 3 scholarships granted to university degree level students
- 5 graduated from Office Administration trainee program, 3 employed

Flexible Open & Distance Education  
(Free to employees & locals)

- 29 completed 1 or more subjects at year 10 to 12



Truck drivers at the 'Go-line' at change of shift, Simberi PNG.

## A\$7 million spent with Landowner businesses in FY18

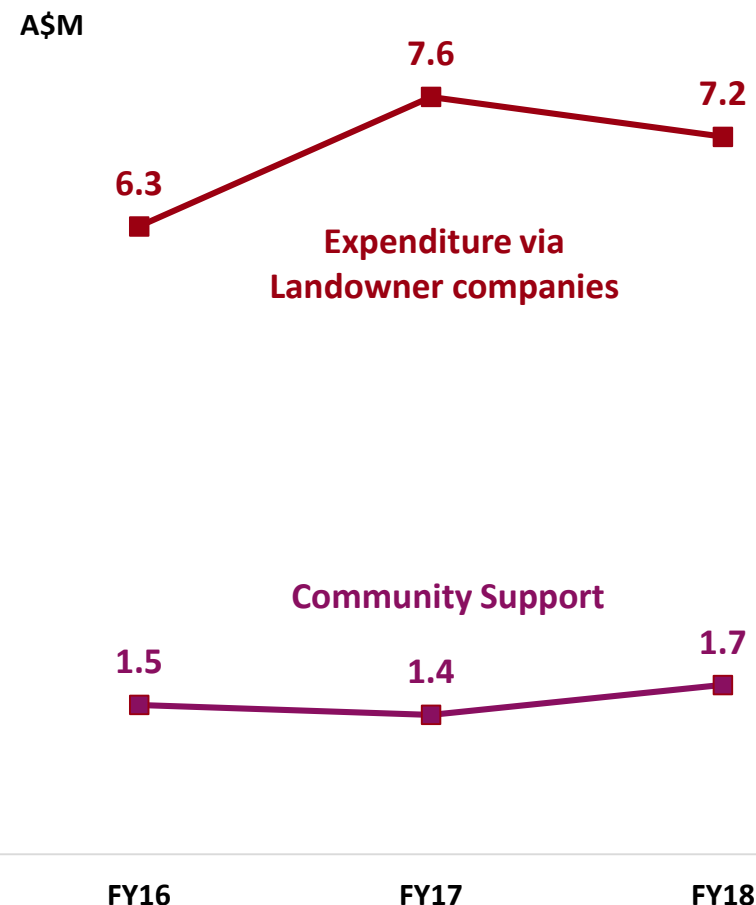
### Mine services:

- Bakery, market garden, wet mess management
- Boats (exploration & logistics)
- Earthmoving & trucking

### Community support:

- Relocation of houses
- Roads & water maintenance
- Plantation and mariculture partnership development initiatives

## Spending in the Community







Top Left & Top Right: Front of shop and admin staff at the Simberi Mine Services shop, within the mine administration area.  
Bottom Left: local women's group at Simberi, PNG, during mine tour. Bottom Right: Simberi Mine Services shop.



## Simberi's Contribution to the Community



Clockwise from main photo above: Fred Hollows Foundation visit, October 2018, Simberi Ring Road, construction of new culverts, Clinic team with patient



### Road and water infrastructure, education, medical services

- Maintaining roads, bridges, water supply, school and health clinics
- Ongoing efforts to eradicate malaria
- October visit by Fred Hollows Foundation
- November visit by Australian Doctors International (ADI)
- JV with 'Books for PNG Kids' charity to supply a library to Simberi school
- Provision and staffing of FODE (adult 'flexible, open and distance education')



Top: Construction of housing for teachers, Maragon village, Simberi PNG.  
Bottom – Delivery of books to Maragon Primary school – over 600 second hand children's books sourced for the primary school via Company initiative in 2018.



### Medical Support

- Provision of housing for government clinic
- Free issue of medication to all island residents through company clinic
- Vaccination campaigns and childhood immunisation programs

### School Support

- Maintenance of classrooms, provision of books and stationery
- Joint venture with landowners to construct and maintain teachers' houses

### Community Policing Support

- Provision of vehicle for police operations
- Accommodation and meals onsite
- Travel to and from Simberi Island



Top: Selection of traditional spiritual icons at Simberi.  
Bottom: Staff at the Simberi Mine Services Fish Shop.

### Sustainable business development

- Simberi Mine Services (SMS) established as landowners company for sustainable business opportunities post mining
- Training in business acumen & accounting
- In 2018 fisheries business advisor engaged and hatchery established on mining lease

### Business Development Initiatives

- |                     |                |
|---------------------|----------------|
| • Market Garden     | Complete FY16  |
| • Chicken Farm      | Complete FY16  |
| • Mariculture       | Expanding FY19 |
| • Cocoa plantations | Expanding FY19 |



Top: Sign to SMS (Simberi Mine Services) market garden on mining lease.  
Bottom: Mariculture (clams and sea-cucumbers) aquarium



### Co-operative Cocoa plantation project

Company provided:

- Initial 5,000 seedlings, nursey for ongoing seedling production
- Initial plantation within the mining lease, labour provided by SMS with company assistance,
- Drainage ditches to prevent water-logging

Planned for 2019:

- Seeking further plantation land on Simberi island
- Providing seedlings and advice to further community groups in adjacent island group, assist with export via SMS co-operative



Cocoa plantation: Top: Cocoa plant nursery. Bottom: Company/SMS plantation, showing drainage ditch and food tree crops providing shade to cocoa plants.

## Domestic and Family Violence

- In 2018 St Barbara developed a Domestic and Family Violence Policy and implemented measures to support affected employees



**Bob Vassie**  
Managing Director & Chief Executive Officer,  
St Barbara Ltd

St Barbara has implemented a number of initiatives to address women's safety at work, including piloting the Business Coalition for Women's Gender Smart Safety program at our Simberi Gold Mine. Although we are in the early stages of the program the feedback from staff has been overwhelmingly positive. We joined the pilot because we specifically wanted to improve the safety of our highly valued female employees, who have the right to feel safe at all times at work. However, it's obvious the influence of the Gender Smart Safety program is already positively impacting the safety of everyone on site. As the MD and CEO of St Barbara, I'm proud to see our company leading the mining industry on such an important initiative. I am glad that St Barbara and Simberi Gold Mine have been involved up-front in the pilot program and recommend the Gender Smart Safety program to other companies in PNG.

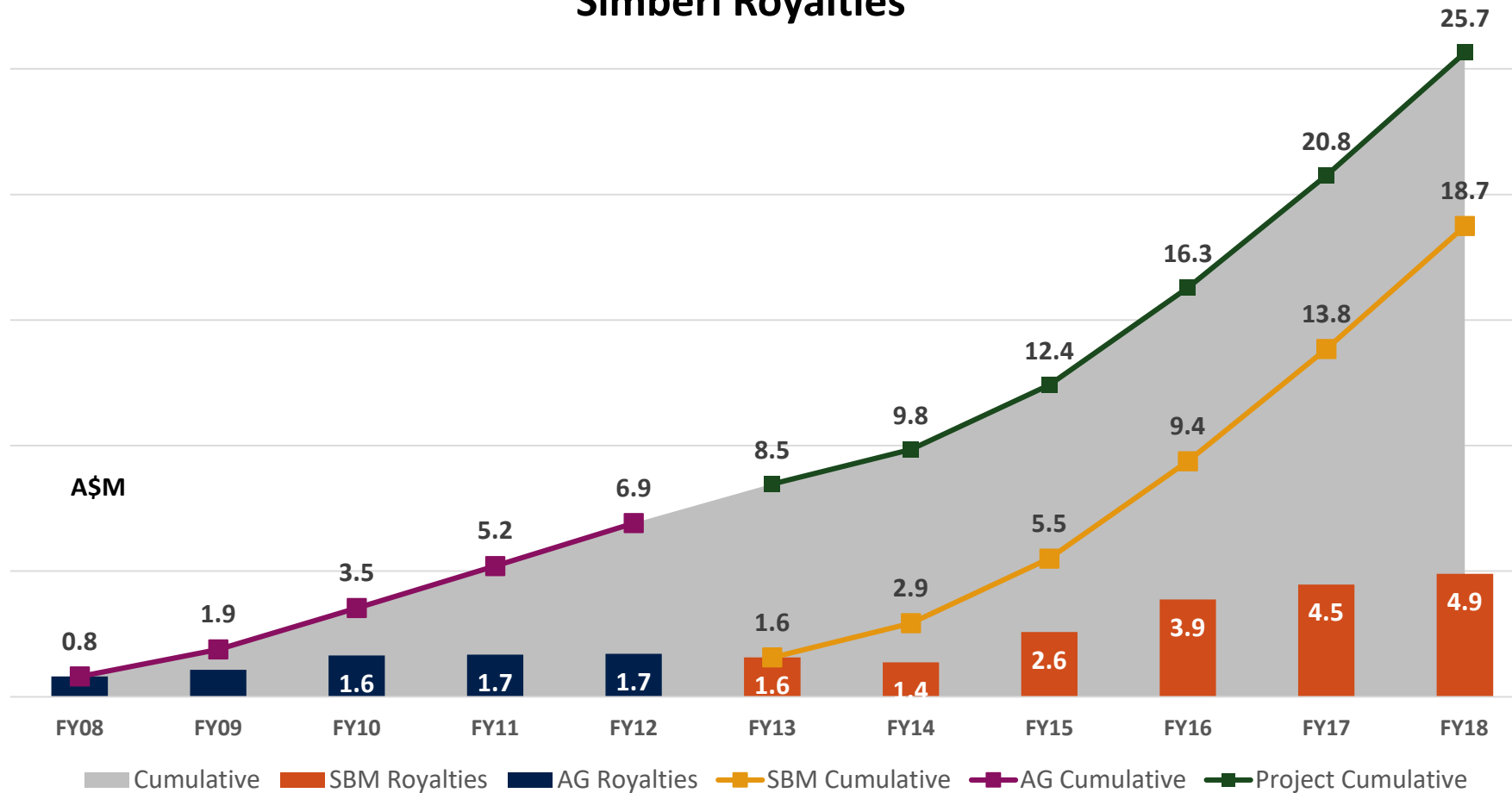
## Gender safety

- In 2015 Simberi mine participated with 3 other employers in research on PNG undertaken by 'Business Coalition for Women':
  - 12% of women working in remote areas do not have secure transportation to and from work
  - 10% of workplaces offer anti-harassment training to employees
  - 56% of employed women believe their career has been affected because of a real or perceived safety concern.





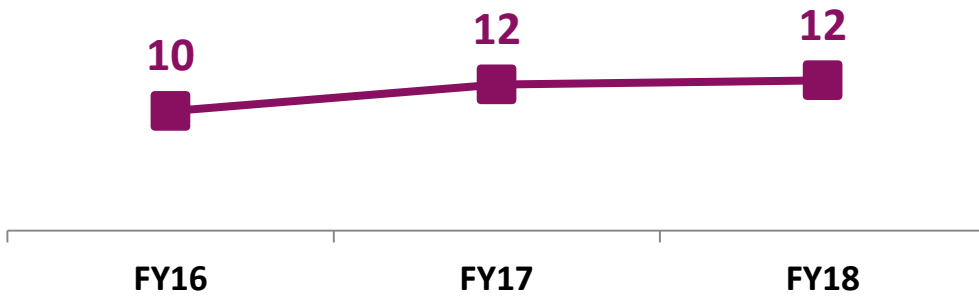
## Simberi Royalties



## Income tax, other taxes, royalties and duties<sup>1</sup> paid

A\$M

Papua New Guinea (other<sup>1</sup>)



1. Other taxes includes salary taxes paid by Group on behalf of employees. Excludes corporate royalties. PNG in net tax loss position, no income tax paid FY16-FY18.



Top: Maragon Primary School book donation.

Bottom: Women from the Simberi Finance and Administration team







We act with **honesty** and **integrity**

We treat people with **respect**

We value **working together**

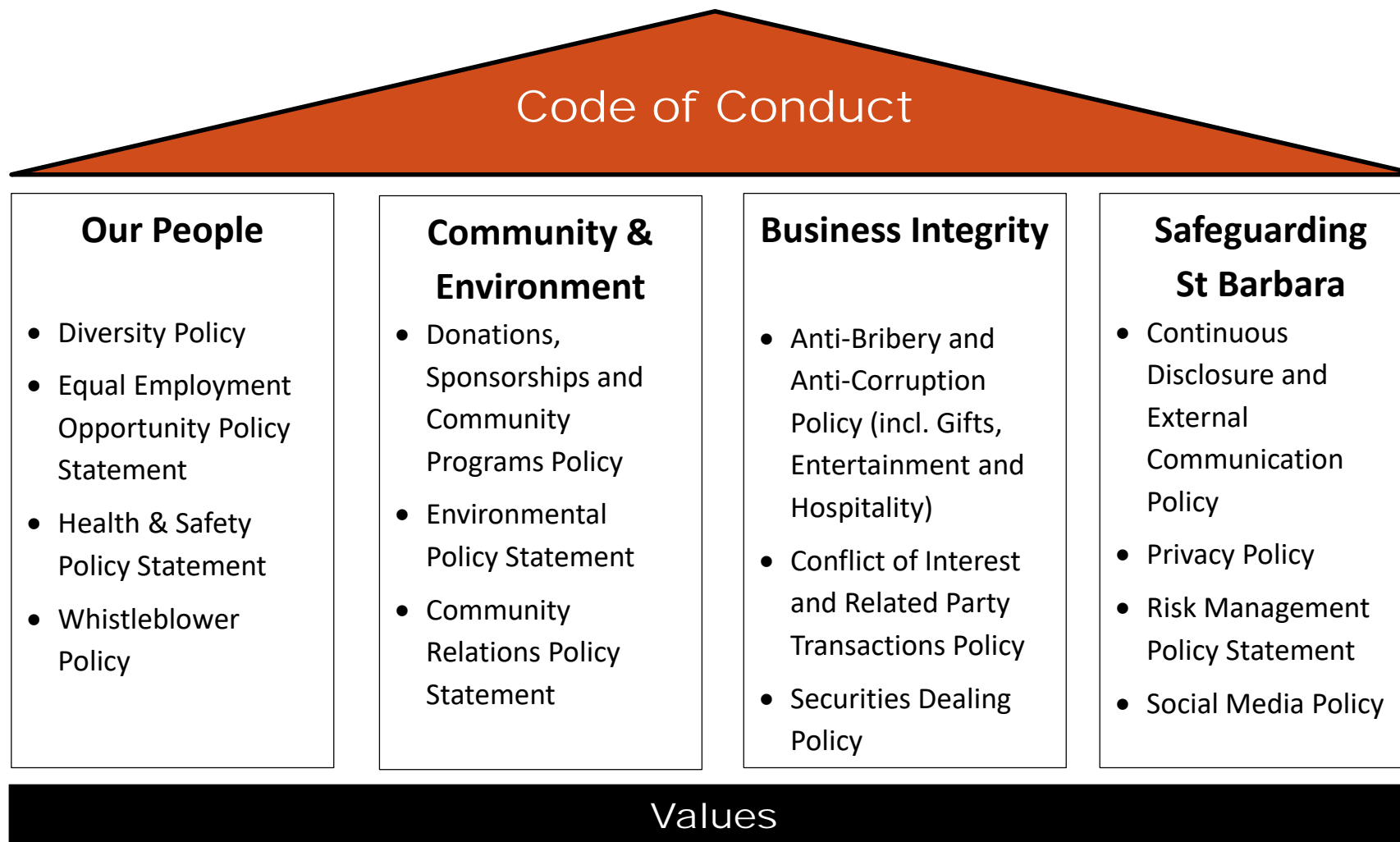
We **deliver** to promise

We strive to **do better**





St Barbara's code of conduct: the framework of policies that puts our values into practice



St Barbara has developed a comprehensive framework of Anti-Bribery and Anti-Corruption measures to prevent and detect bribery and corruption, comprising an integrated set of policies, training, audits, procedures and registers.

## Online registers

- Gifts, Entertainment and Hospitality
- Conflict of Interest and Related Party Transactions
- Donations, Sponsorships and Community Programs

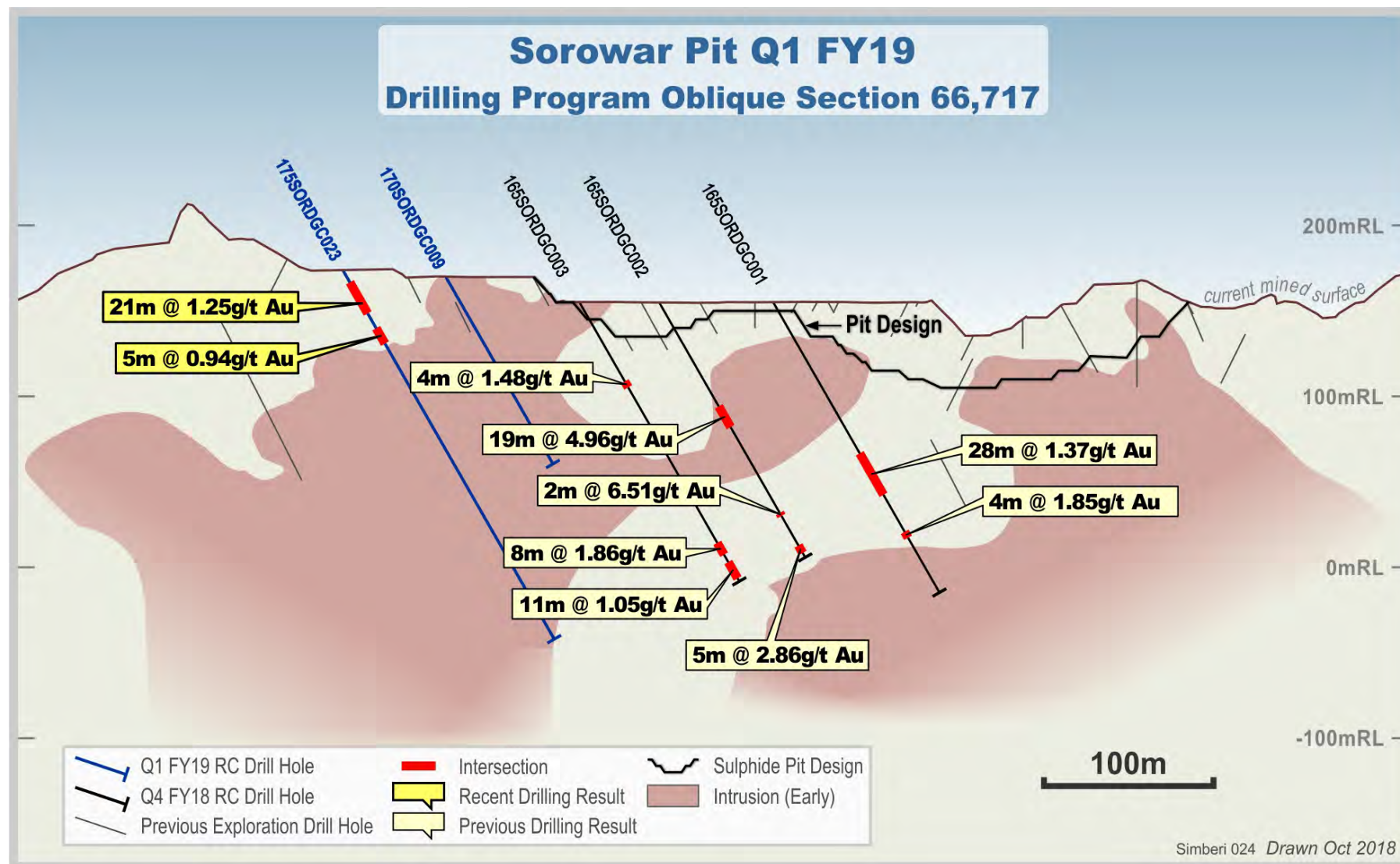
## Training

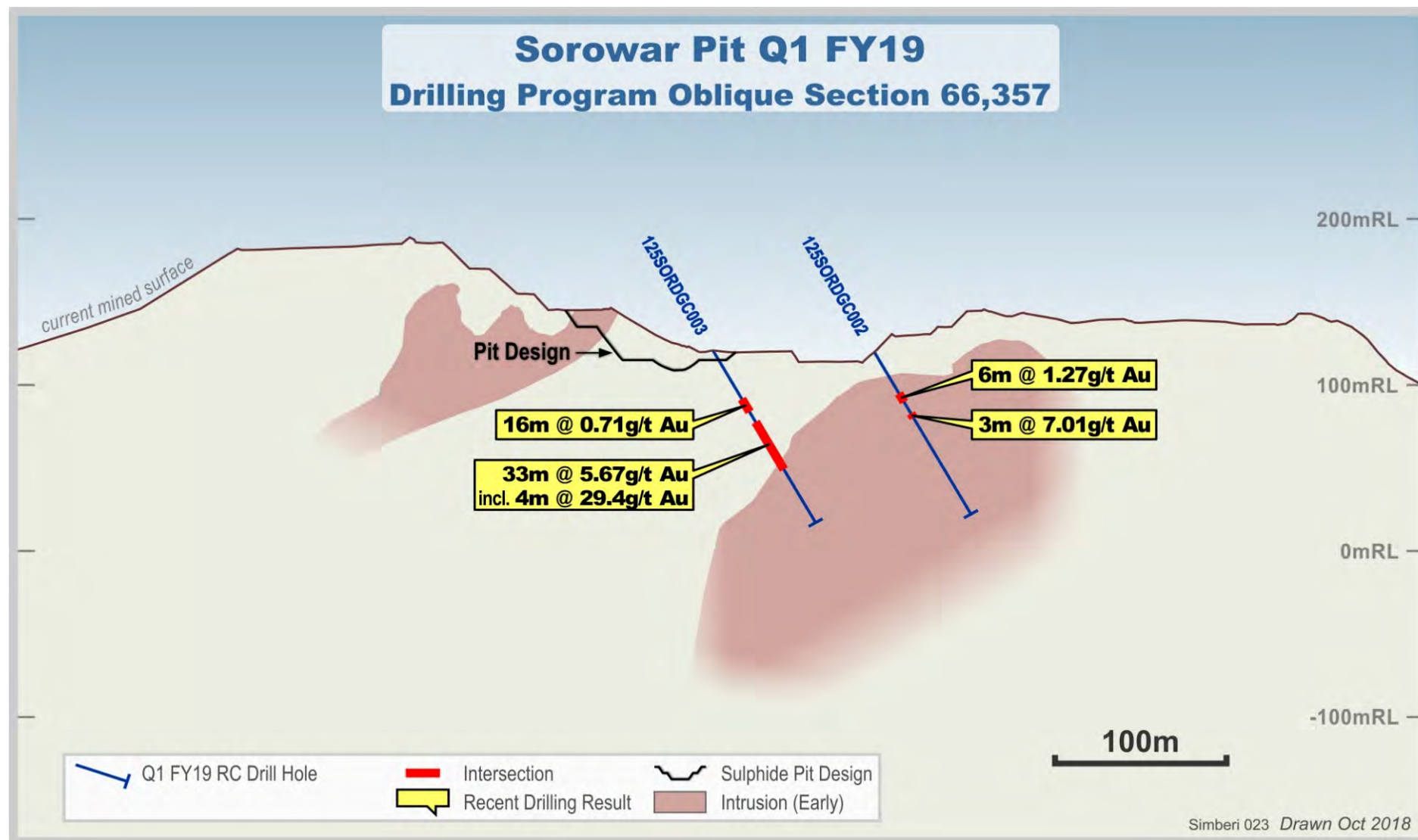
- Training at **induction** and **annually for all staff**
- Specific induction and ongoing training for supplier facing staff

## Policies

- Anti-Bribery and Anti-Corruption (inc. Gifts, Entertainment and Hospitality)
- Conflict of Interest and Related Party Transactions
- Donations, Sponsorships and Community Programs
- Whistleblower









# Ore Reserves Summary as at 30 June 2018



Project	Proved			Probable			Total		
	Tonnes ('000)	Gold (g/t)	Ounces ('000)	Tonnes ('000)	Gold (g/t)	Ounces ('000)	Tonnes ('000)	Gold (g/t)	Ounces ('000)
Gwalia, (WA)	1,845	9.0	531	6,061	7.0	1,368	7,907	7.5	1,899
Tower Hill, (WA)	-	-	-	2,572	3.7	306	2,572	3.7	306
Simberi Oxide, (PNG)	1,644	1.5	77	5,692	1.3	237	7,336	1.3	314
Simberi Sulphide, (PNG)	151	3.0	15	12,200	3.5	1,367	12,352	3.5	1,382
Simberi Stockpiles, (PNG)	889	0.8	22	-	-	-	889	0.8	22
<b>Total All Projects</b>	<b>4,529</b>	<b>4.4</b>	<b>645</b>	<b>26,525</b>	<b>3.8</b>	<b>3,278</b>	<b>31,055</b>	<b>3.9</b>	<b>3,923</b>

## Notes

1. Ore Reserves are based on a gold price of: Gwalia (AU\$1,350/oz), Tower Hill (AU\$1,250/oz), Simberi (US\$1,200/oz)
2. Cut-off Grades Gwalia (4.0g/t Au), Tower Hill (2.8g/t Au), Simberi Oxide (0.5g/t Au), Simberi Sulphide (1.1g/t Au)
3. Mineral Resources are reported inclusive of Ore Reserves.
4. Data is rounded to thousands of tonnes and thousands of ounces. Discrepancies in totals may occur due to rounding.
5. Details relating to each of the estimates are contained in the 2018 Annual Mineral Resource and Ore Reserve Report at [www.stbarbara.com.au/exploration/Ore-Reserves-mineral-resources/](http://www.stbarbara.com.au/exploration/Ore-Reserves-mineral-resources/)

Full details are contained in the ASX release dated 27 August 2018 'Ore Reserves and Mineral Resources Statements 30 June 2018' available at [www.stbarbara.com.au](http://www.stbarbara.com.au).

# Mineral Resources Summary as at 30 June 2018



Project	Measured			Indicated			Inferred			Total		
	Tonnes ('000)	Gold (g/t)	Ounces ('000)	Tonnes ('000)	Gold (g/t)	Ounces ('000)	Tonnes ('000)	Gold (g/t)	Ounces ('000)	Tonnes ('000)	Gold (g/t)	Ounces ('000)
Gwalia, (WA)	4,581	7.1	1,048	14,690	6.3	2,997	3,831	6.3	780	23,102	6.5	4,825
Tower Hill, (WA)	-	-	-	4,604	3.9	574	489	3.3	51	5,093	3.8	625
Simberi Oxide, (PNG)	2,120	1.2	85	10,163	1.0	341	4,834	1.0	150	17,117	1.0	576
Simberi Sulphide, (PNG)	526	1.7	28	40,683	1.9	2,454	12,615	1.6	654	53,824	1.8	3,136
<b>Total All Projects</b>	<b>7,227</b>	<b>5.0</b>	<b>1,161</b>	<b>70,140</b>	<b>2.8</b>	<b>6,366</b>	<b>21,769</b>	<b>2.3</b>	<b>1,635</b>	<b>99,136</b>	<b>2.9</b>	<b>9,162</b>

## Notes

1. Mineral Resources are reported inclusive of Ore Reserves
2. Cut-off Grades Gwalia (2.5g/t Au), Tower Hill (2.5g/t Au), Simberi Oxide (0.4g/t Au), Simberi Sulphide (0.6g/t Au)
3. Simberi Mineral Resources are reported constrained by a US\$1,800/oz pit shell
4. Data is rounded to thousands of tonnes and thousands of ounces. Discrepancies in totals may occur due to rounding.
5. Details relating to each of the estimates are contained in the 2018 Annual Mineral Resource and Ore Reserve Report at [www.stbarbara.com.au/exploration/Ore-Reserves-mineral-resources/](http://www.stbarbara.com.au/exploration/Ore-Reserves-mineral-resources/)

Full details are contained in the ASX release dated 27 August 2018 'Ore Reserves and Mineral Resources Statements 30 June 2018' available at [www.stbarbara.com.au](http://www.stbarbara.com.au).



## Exploration Results

The information in this presentation that relates to Exploration Results for Simberi and Pinjin is based on information compiled by Dr Roger Mustard, who is a Member of The Australasian Institute of Mining and Metallurgy. Dr Mustard is a full-time employee of St Barbara and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Mustard consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this presentation that relates to Exploration Results for Gwalia and the Leonora region is based on information compiled by Mr Robert Love, who is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Love is a full-time employee of St Barbara and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Love consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## Mineral Resource and Ore Reserve Estimates

The information in this presentation that relates to Mineral Resources or Ore Reserves is extracted from the report titled 'Ore Reserves and Mineral Resources Statements 30 June 2018' released to the Australian Securities Exchange (ASX) on 27 August 2018 and available to view at [www.stbarbara.com.au](http://www.stbarbara.com.au) and for which Competent Persons' consents were obtained. Each Competent Person's consent remain in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original ASX announcement released on 27 August 2018 and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the original ASX announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original ASX announcement.

*Full details are contained in the ASX release dated 27 August 2018 'Ore Reserves and Mineral Resources Statements 30 June 2018' available at [www.stbarbara.com.au](http://www.stbarbara.com.au).*

We supplement our financial information reporting determined under International Financial Reporting Standards (IFRS) with certain non-IFRS financial measures, including cash operating costs. We believe that these measures provide meaningful information to assist management, investors and analysts in understanding our financial results and assessing our prospects for future performance.

**All-In Sustaining Cost** All-In Sustaining Cost 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). Refer most recent quarterly report available at [www.stbarbara.com.au](http://www.stbarbara.com.au) for example

**Underlying profit from operations** Excludes impairment losses, corporate costs, exploration expenses, interest and tax. The measure is presented to enable an understanding of the underlying performance of the operations, which has not been subject to review or audit by the Group's external auditors. Refer 2018 Annual Report (p4) for details, available at [www.stbarbara.com.au](http://www.stbarbara.com.au)



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