



OPERATIONAL PROFILE 2017



SERRA GRANDE
BRAZIL

Serra Grande, wholly-owned by AngloGold Ashanti, is located in central Brazil in the state of Goiás, about 5km from the city of Crixás. It comprises three mechanised underground mines – Mina III, Mina Nova and Mina Palmeiras – as well as an open-pit. One dedicated metallurgical plant treats all ore mined. Annual plant capacity is 1.5Mt.

HIGHLIGHTS

PRODUCTION STABLE

with 8% increase in ore volumes treated

FOCUS ON COST

and efficiency improvements maintained

INGÁ OREBODY

begins producing

As at 31 December 2017:

- **MINERAL RESOURCE**

of 3.66Moz (inclusive)
(1.47Moz below infrastructure)

- **ORE RESERVE** of 0.33Moz

(0.14Moz below infrastructure)



Operational performance

Production

At Serra Grande, the mine delivered an 8% increase in ore treated year-on-year, a result of the plant's CIL leaching conversion and continuous efficiency improvement initiatives. Production increased despite lower feed grades and was driven by higher tonnes treated, supported by improved crushing and milling efficiencies and more efficient leaching, following the implementation of the carbon-in-leach project. These efficiencies were a result of Operational Excellence initiatives, which led to improved levels of ore mined, offsetting lower open-pit production. The Operational Excellence initiatives focused on increasing open-pit mine production, new mine sequencing, development, HME availability, drilled Ore Reserve increment, debottlenecking the

sulphide mine, improving plant performance and planning for the flotation tailings leaching project.

Costs

Despite the continued focus on cost management and production improvements, total cash costs were higher in 2017, due mainly to inflationary pressures, particularly salary adjustments. Costs were also impacted by the lower grade feed and the 9% appreciation in the local currency (the Brazilian real) against the US dollar compared with the previous year.

Growth and improvement

The Ingá orebody began production during the year, while the potential of the orebodies at Mangaba and Corpo IV remain under evaluation. The Palmeiras South negotiations, aimed at reaching agreement on possible

accelerated exploration to confirm the area's potential, are at an advanced stage.

Capital expenditure

Capital expenditure declined year-on-year as a more aggressive capital management approach was implemented with all discretionary capital items being under strict review.

Sustainability performance

For further information on sustainable development activities related to Serra Grande, including that on safety and health, the environment and communities, refer to:

- *Regional reviews – Americas* in the <IR>, available at www.aga-reports.com
- <SDR>, also available at www.aga-reports.com

SERRA GRANDE — KEY STATISTICS

	Units	2017	2016	2015
Operational performance				
Cut-off grade ⁽¹⁾	oz/t	0.053	0.071	0.062
	g/t	1.80	2.45	2.11
Recovered grade	oz/t	0.086	0.092	0.095
	g/t	2.95	3.17	3.27
Tonnes treated/milled	Mt	1.4	1.3	1.3
Gold production	000oz	133	132	132
Total cash cost	\$/oz	764	634	635
All-in sustaining cost	\$/oz	1,103	1,020	861
Capital expenditure	\$m	38	43	33
Productivity	oz/TEC	10.13	10.13	10.97
Safety				
No. of fatalities		0	0	0
All injury frequency rate (AIFR)	per million hours worked	5.49	8.05	9.49
People				
Total average no. of employees		1,578	1,587	1,446
– Permanent		1,173	1,151	1,104
– Contractors		405	436	342
Environment				
Water use	ML	1,504	1,623	1,506
Water use efficiency	kL/t	1.06	1.23	1.15
Energy consumption	PJ	0.56	0.54	0.48
Energy intensity	GJ/t	0.39	0.41	0.37
Greenhouse gas (GHG) emissions	000t	24	19	15
GHG emissions intensity	t CO ₂ e/t	17	14	12
Cyanide use	t	548	533	543
No. of reportable environmental incidents		0	0	0
Total rehabilitation liabilities	\$m	16	17	14

⁽¹⁾ Based on the Ore Reserve.