

SERRA GRANDE

BRAZIL



LEGEND

- 1** Serra Grande
- 2** AGA Mineração

Serra Grande, in the state of Goiás about 5km from the city of Crixás, comprises three mechanised underground mines and an open pit

Serra Grande, which is wholly owned, comprises three mechanised underground mines: Mina III, Mina Nova and Mina Palmeiras, and an open pit.

One dedicated metallurgical plant, with an annual capacity of 1.5Mt, treats all ore mined.

Serra Grande is currently one of three AngloGold Ashanti operations in the Americas region.

FEATURES OF THE YEAR

STABLE PRODUCTION

123,000oz

COSTS IMPACTED

by inflationary pressures and increased rehabilitation provisions

TSF DRY STACKING

plan being fast tracked

WATER USE EFFICIENCY

at 0.34kL/t from 1.29kL/t

3.21Moz

inclusive Mineral Resource as at 31 December 2019

PERFORMANCE 2019

Operating performance

Production

Production of 123,000oz was slightly lower year-on-year due to lower feed grades, particularly in the second half of the year, and was also impacted by reduced drilling productivity and fleet availability. This was partially offset by higher tonnage treated following the Mina III pushback.

Costs

Total cash costs at \$707/oz were higher year-on-year due to lower grades, cost escalations and increases in operational costs such as equipment rental, drilling and roof support items. This was slightly offset by weaker currencies.

Capital expenditure

Sustaining capital expenditure in 2019 was spent mainly on Ore Reserve development at the underground operations.

Serra Grande is our only operation in Brazil with an upstream TSF. The current dam, which has a reinforced wall, will be converted to dry stacking as per the mine plan. Following the implementation of new legislation, the process will be accelerated. Decommissioning is expected to begin in September 2021 to ensure we comply with the revised legislation.

Growth and improvement

In Brazil, the strategy is to enhance mining flexibility and predictability by investing in Ore Reserve development, along with Mineral Resource and Ore Reserve conversions. More brownfields exploration is planned to increase the Ore Reserve and related confidence levels. This work will be vital in the upcoming year.

During 2019, Serra Grande transitioned to full owner development and development metres achieved increased by 10% compared to 2018 levels. In 2019, good progress in development work was made at the new Palmeiras Sul orebody. This orebody has the potential to extend mine life and improve flexibility. The Palmeiras South underground mine is expected to commence delivering ounces in the first half in 2020.

Sustainability performance

Safety

There were no fatalities in 2019.

Environment

No environmental incidents were reported in 2019.

In Brazil, two catastrophic collapses of TSFs (unrelated to the company) in recent years have heavily influenced the shift in global environmental management regulations, particularly those relevant to the construction, management and regulation of TSFs, which will inevitably lead to increased compliance and operational costs. AngloGold Ashanti's Brazilian operations continued to accelerate the transition towards compliance with the requirements of new

local laws and regulations. See the case study: *Tailings storage facility management in Brazil* in the <SR>.

In Brazil, critical licences were obtained despite a challenging environment for the mining industry, following the collapse of a TSF operated by Vale in Brumadinho in January 2019. Several draft bills are under consideration at federal and state levels which include, among others: proposals for a surety bond to cover TSF-related incidents; stricter approval requirements; inspection of construction and maintenance of new existing and TSFs; a possible increase in mining royalties and taxes; and the possible removal of existing export incentives. AngloGold Ashanti's Brazilian operations are in compliance in all material respects with all laws and regulations as provided for in the existing permits.

Community development

In line with our values to leave communities better off for our having been there, in Brazil, as part of our corporate social responsibility, we have established a sustainable partnership programme that promotes local businesses (see the case study: *Brazil's Sustainable Partnerships Programme* in the <SR>).

Community-related work included the voluntary resettlement of the Santos Reis community adjacent to Serra Grande, progressed notably during the year with 41 of 51 families settled in new homes in the nearby town of Crixás. The resettlement will allow work to begin on the open pit expansion.

In Brazil, harmonious community relations reflect the community's goodwill towards the company. This remains a key strategic objective in maintaining and strengthening this social licence at all our operations. Social investment in communities prioritises projects focused on culture, social development, health, income generation and sustainable environment solutions.

Major projects implemented include:

Sustainable Partnerships Programme (Public call for projects): Social projects supported by the company are selected by a committee comprising AngloGold Ashanti, specialists in social projects and representatives of communities in line with open and transparent management of social investments. In 2019, 24 projects were supported with the investment of more than R\$1.1m

Tax incentives: In Brazil, specific laws allow the company to invest part of the income tax in projects approved by the federal government in areas such as culture, sport, children and youth, elderly and disabled people, as well as health (particularly oncology). AngloGold Ashanti invested around R\$7 million in initiatives, that will be implemented in 2020, for the benefit of cities surrounding its operations

Volunteerism: The Holding Hands Programme, established in 2004, has benefited more than 35,000 people through more than 256 activities (5,206 voluntary participators) over the years. The programme aims to encourage employees to become involved in and to contribute to social causes within local municipalities where the company operates

PERFORMANCE 2019 CONTINUED

Good Neighbourhood Programme: The purpose of this programme is to strengthen AngloGold Ashanti's relationship and dialogue with communities in Brazil, including regular meetings and publication of a special printed newspaper. A toll-free hotline also receives grievances and complaints

Tailings dam management: Since 2015, AngloGold Ashanti Brazil has been reinforcing its tailing dam management programme plan. Activities in 2019 included dam break simulations at all business units

Key statistics

Serra Grande	Units	2019	2018	2017
Operating performance				
Cut-off grade ⁽¹⁾	oz/t	0.093	0.055	0.053
	g/t	3.20	1.87	1.80
Recovered grade	g/t	3.23	3.55	2.95
Tonnes treated/milled	Mt	1.3	1.1	1.4
Gold production	000oz	123	130	133
Total cash costs	\$/oz	707	660	764
All-in sustaining costs	\$/oz	1,105	945	1,103
Capital expenditure	\$m	34	35	38
Productivity	oz/TEC	9.80	10.50	10.13
Safety performance				
No. of fatalities		0	0	0
All injury frequency rate (AIFR)	per million hours worked	6.11	5.93	5.49
People				
Total average no. of employees		1,531	1,462	1,578
– Permanent		1,222	1,158	1,173
– Contractors		309	304	405
Environmental performance				
Water use	ML	443	1,500	1,504
Water use efficiency	kL/t	0.34	1.29	1.06
Energy consumption	PJ	0.62	0.54	0.56
Energy intensity	GJ/t	0.47	0.47	0.39
Greenhouse gas (GHG) emissions	000t	24	21	24
GHG emissions intensity	t CO ₂ e/t	18	18	17
Cyanide use	t	572	450	548
No. of reportable environmental incidents		0	0	0
Total rehabilitation liabilities	\$m	20	13	16
Social performance				
Community investment	\$000	431	322	114
Payments to government ⁽²⁾	\$m	109	107	126

⁽¹⁾ Based on the Ore Reserve.

⁽²⁾ Total paid to the Brazilian government for AGA Mineração and Serra Grande.

For further information on AngloGold Ashanti and its work and performance, as a group and in the Americas region, see the <IR> and <SR> which are available online at www.aga-reports.com.