

# OPERATIONAL PROFILE

2013



Sadiola, the largest of the three AngloGold Ashanti operations in Mali, is a joint venture between AngloGold Ashanti (41%), which manages the mine, IAMGOLD (41%) and the government of Mali (18%).

The mine began operating in 1996 and is located in south-western Mali, near the Senegal border and 77km southwest of the regional capital Kayes.

Mining activities take place in five open pits. On-site surface infrastructure includes a 4.9Mtpa carbon-in-leach (CIL) gold plant where the ore is eluted and smelted.

## HIGHLIGHTS OF THE YEAR

- Production lower following downtime for plant maintenance and lower grades
- An average of 810 employees achieved a productivity rate of 10.56oz per total employee costed (TEC)
- As at 31 December 2013, Sadiola's Mineral Resource of 3.10Moz accounted for 4% of the Continental Africa region's Mineral Resource
- The Sadiola Sulphide Project remains on hold

### PERFORMANCE 2013

Following a sharp decline in the gold price in the first half of 2013, difficult decisions were made to prepare the business to optimise margins in a volatile gold price environment. As a result, a more conservative approach to planning has had an impact on the future production and cost profile for Sadiola and its plans for growth.

Annual production declined on scheduled plant maintenance early in the year and an overall drop in recovered grade due to the limited availability of oxide ore.

The Sadiola Sulphide Project (SSP), which is intended to treat hard sulphide ore from the main pit through a new plant in parallel with the current oxide plant, was suspended in 2012 due to political uncertainty that year. Notwithstanding the overall stabilisation of the environment in Mali since, given the sharp drop in the gold price early in the year, the project remains suspended. A lower-cost option to treat Sadiola's sulphide stockpiles is being explored.

To date, AngloGold Ashanti has committed \$81m to the SSP to secure long-lead items and the mining fleet. The long-lead equipment delivered against the originally approved orders remains on site. Despite the deferral of the project, the SSP has been granted a five-year corporate tax exemption. This follows on from agreement reached to extend the life of the Sadiola mine.

Sadiola's short-term exploration strategy is aimed at building a comprehensive understanding of the remaining oxide potential and, in the longer term, extending the sulphide potential. Assay results from the SSP exploration demonstrated the continuity and width of the mineralisation and the potential for an underground resource.

### Sadiola – key statistics

		Units	2013	2012	2011
<b>Operational performance</b>					
Pay limit		oz/t	0.04	0.05	0.02
		g/t	1.52	1.44	0.53
Recovered grade		oz/t	0.039	0.048	0.055
		g/t	1.34	1.64	1.90
Tonnes treated/milled	– 100%	Mt	4.8	4.6	4.8
	– 41%	Mt	2.0	1.9	2.0
Gold production	– 100%	000oz	215	245	295
Gold production	– 41%	000oz	86	100	121
Total cash costs <sup>(1)</sup>	– 41%	\$/oz produced	1,334	1,169	816
All-in sustaining costs	– 41%	\$/oz sold	1,510	1,249	
Total production costs		\$/oz	1,388	1,096	830
Capital expenditure <sup>(1)</sup>	– 100%	\$m	105	90	34
	– 41%	\$m	42	37	14
Productivity	– 41%	oz/TEC	10.56	12.27	15.53
<b>Safety</b>					
No. of fatalities			0	0	0
All injury frequency rate (AIFR)		per million hours worked	1.28	2.21	2.44
<b>People</b>					
Total average no. of employees	– 41%		810	783	756
– Permanent			408	362	347
– Contractors			402	421	409
<b>Environment</b>					
Total water usage		ML	4,330	3,837	3,602
Total water usage per tonne treated		kL/t	0.89	0.83	0.75
Total energy usage		PJ	2.10	2.17	2.00
Total energy usage per tonne treated		GJ/t	0.43	0.47	0.41
Total greenhouse gas (GHG) emissions (CO <sub>2</sub> e)		000t	156	161	148
Total GHG emissions per tonne treated		t CO <sub>2</sub> e/t	0.03	0.03	0.03
Cyanide usage		t	2,511	2,570	1,860
No. of reportable environmental incidents			0	1	0
Total rehabilitation liabilities		\$m	27	24	25

<sup>(1)</sup> Recalculated for 2011 and 2012 in terms of adoption of IFRIC 20.

For more detailed information from an operational and sustainability perspective, please see the Mali country fact sheet which is available at [www.aga-reports.com](http://www.aga-reports.com).