



OPERATIONAL PROFILE 2017



IDUAPRIEM
GHANA

Iduapriem, which comprises the Iduapriem and Teberebie properties in a 110km² concession, is located in the western Region of Ghana, some 70km north of the coastal city of Takoradi and about 10km south-west of the Tarkwa mine. Iduapriem is an open-pit mine and during the year its processing facilities were converted from a carbon-in-pulp (CIP) to a carbon-in-leach (CIL) plant with a gravity circuit. The gravity feed recovers about 30% of the gold with the remainder recovered by the CIL plant. The CIL plant has a capacity of 418ktpm.

HIGHLIGHTS

PRODUCTION 7% HIGHER

year-on-year

COST MANAGEMENT

yielded improved productivity and efficiencies

EXTENSIVE WASTE STRIPPING programme underway

As at 31 December 2017:

- **MINERAL RESOURCE** of 5.54Moz (inclusive)
- **ORE RESERVE** of 1.85Moz



Operational performance

Production

At Iduapriem, production increased by 7% year-on-year. Mining during the year focused on deeper, higher-grade areas, resulting in an 8% increase in recovered grade. Total tonnes mined increased 27% year-on-year to 35Mt, owing to greater mining-fleet productivity, as the mine continued with its extensive waste stripping programme to access the ore sources in the Block 7 and 8 pit that will provide the foundation for sustainable production over the future life-of-mine.

Costs

Total cash costs at Iduapriem decreased by 9% year-on-year due to higher production and lower costs as operational efficiencies and cost management initiatives continued to bear fruit during the year and higher recovered grades.

During the year, the Continental Africa region continued to drive continuous improvement through the Operational Excellence programme, a system that is now well entrenched across all sites and disciplines. The focus remains on delivering systemic

and sustainable operational improvements, aimed at each operation rapidly progressing towards targeted lower all-in sustaining costs that reflect the inherent opportunity that exists within each operation.

Growth and improvement

The deferred stripping carried out during the year at Teberebie Cut 3 was completed and waste stripping at the larger Cut 1 exceeded planned targets. The project delivered an additional 4.1Mt of marginal and waste material as a result of improved efficiencies in mining unit rates. This work will now provide access to the orebody to extend the mine life by about a decade. The plant recovery project was successfully completed and is expected to contribute to higher plant recoveries in 2018.

Capital expenditure

Increased sustaining capital investment at Iduapriem is expected to realise future benefits as higher grade ore is accessed.

Sustainability performance

For further information on sustainable development activities related to Iduapriem, including safety and health, employee relations, the environment, communities, and security and human rights, refer to:

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

IDUAPRIEM – KEY STATISTICS

	Units	2017	2016	2015
Operational performance				
Cut-off grade ⁽¹⁾	oz/t	0.024	0.022	0.025
	g/t	0.82	0.77	0.86
Average recovered grade	oz/t	0.041	0.038	0.037
	g/t	1.40	1.30	1.27
Tonnes treated/milled	Mt	5.1	5.1	4.7
Gold production	000oz	228	214	193
Total cash cost	\$/oz	823	908	995
All-in sustaining cost	\$/oz	1,033	950	1,020
Capital expenditure	\$m	51	8	15
Productivity	oz/TEC	18.34	17.36	16.32
Safety				
No. of fatalities		0	0	0
All injury frequency rate (AIFR)	per million hours worked	0.39	0.42	0.00
People				
Total average no. of employees		1,598	1,576	1,565
– Permanent		628	621	644
– Contractors		970	955	921
Environment				
Water use	ML	2,137	936	750
Water use efficiency	kL/t	0.42	0.18	0.16
Energy consumption	PJ	1.46	1.02	0.89
Energy intensity	GJ/t	0.29	0.20	0.19
Greenhouse gas (GHG) emissions	000t	124	108	95
GHG emissions intensity	t CO ₂ e/t	25	21	20
Cyanide use	t	1,440	1,340	1,240
No. of reportable environmental incidents		0	0	0
Total rehabilitation liabilities	\$m	44	44	42

⁽¹⁾ Based on the Ore Reserve.