

OPERATIONAL PERFORMANCE

Doornkop

		FY17	FY16	FY15
Number of employees				
– Permanent		2 847	2 471	2 977
– Contractors		645	443	493
Total		3 492	2 914	3 470
Operational				
Volumes milled	(000t) (metric)	641	630	603
	(000t) (imperial)	706	695	665
Gold produced	(kg)	2 673	2 730	2 663
	(oz)	85 939	87 772	85 618
Gold sold	(kg)	2 712	2 712	2 711
	(oz)	87 193	87 193	87 160
Grade	(g/t)	4.17	4.33	4.42
	(oz/t)	0.122	0.126	0.129
Productivity	(g/TEC)	77.08	83.49	68.47
Development results				
Total metres (excl. capital metres)		9 961	7 766	8 919
Reef metres		1 337	1 688	1 701
Capital metres		1 316	0	0
Financial				
Revenue	(Rm)	1 553	1 480	1 220
	(US\$m)	114	102	107
Average gold price received	(R/kg)	572 494	545 770	449 857
	(US\$/oz)	1 310	1 171	1 222
Cash operating cost	(Rm)	1 224	1 058	1 071
	(US\$m)	90	73	94
Production profit/(loss)	(Rm)	312	433	128
	(US\$m)	23	30	12
Capital expenditure	(Rm)	243	208	245
	(US\$m)	18	14	21
Cash operating cost	(R/kg)	457 752	387 585	402 065
	(US\$/oz)	1 047	831	1 092
All-in sustaining cost	(R/kg)	562 907	473 562	501 151
	(US\$/oz)	1 288	1 016	1 362
Safety				
Number of fatalities		0	0	1
Lost-time injury frequency rate per million hours worked		7.50	12.27	7.14
Environment				
Electricity consumption	(GWh)	188	203	205
Water consumption – primary activities	(ML)	947	1 135	733
Greenhouse gas emissions	(000t CO ₂ e)	186	206	211
Intensity data per tonne treated				
– energy		0.30	0.32	0.34
– water		1.48	1.80	1.26
– greenhouse gas emissions		0.30	0.32	0.35
Number of reportable environmental incidents		0	0	0
Community				
Local economic development*	(Rm)	8	4	37
Training and development	(Rm)	42	30	35

* Included in the total for FY16 is an amount of R1 million that was capitalised as part of the hostel upgrades (FY15: R28 million, FY17: R0 million)

Doornkop *continued*

Other salient features

Status of operation	Mining takes place on the South Reef at this single-shaft operation.
Life of mine	18 years
Nameplate hoisting capacity (per month)	103 000 tonnes (113 000 tons)
Compliance and certification	New order mining right – October 2008 ISO 14001 ISO 9001 OHSAS 18001

Mineral reserves as at 30 June 2017

Reserves (metric)	Proved reserves			Probable reserves			Total mineral reserves		
	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
	2.1	4.97	11	2.5	4.96	12	4.6	4.96	23
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	2.4	0.145	343	2.7	0.145	392	5.1	0.145	735

Doornkop, a single-shaft operation, is located in the Gauteng province of South Africa, approximately 30km west of Johannesburg, on the northern rim of the Witwatersrand Basin. Mining is conducted to a depth of 1 978m. The operation focuses on narrow-reef conventional mining of the South Reef. Ore from the operation is processed at the Doornkop plant.

Safety improvements were realised and Doornkop achieved its first ever two million fatality-free shift on 17 December 2016 after working 872 days fatality-free. There were no fatalities in FY17. The lost-time injury frequency rate improved by 39% to 7.50 per million hours worked in FY17 from 12.27 in FY16.

Gold production decreased by 2% to 2 673kg (85 939oz) in FY17. A 2% increase in ore milled to 641 000 tonnes (706 000 tons) was offset by a 4% decrease in the recovered gold grade to 4.17g/t (0.122oz/t). The decrease in the grade is due to the lower plant call factor owing to lower than expected plant efficiencies. Management at the shaft are focused on improving these efficiencies in FY18.

Despite the decrease in gold production, the 5% increase in the average rand gold price received (which included the gains realised on the gold forward hedging contracts) resulted in a 5% increase in revenue to R1 553 million (12% increase to US\$114 million). The increase in dollar terms was also due to the 6% strengthening of the rand/US dollar exchange rate to R13.60 in FY17 (FY16: R14.50/US\$).

Cash operating costs increased by 16% to R1 224 million (increased by 23% to US\$90 million) as a results of annual wage and electricity tariff increases as well as additional crews brought in to accelerate production. Capital expenditure increased by 17% to R243 million (increased by 29% to US\$18 million) owing to an increase in shaft capital development on the 207 and 212 levels.

The planned seismic survey was completed during FY17 and led to an increase in the mine's reserves and a better understanding of the mines geological structures. All changes related to the survey and geological drilling will be updated in the FY19 geological interpretation and life-of-mine design.