

OPERATIONS 2018 CONTINUED

SOUTH AFRICA

Tshepong operations

		FY18*	FY17*	FY16*
Number of employees				
– Permanent		8 347	8 110	7 779
– Contractors		673	588	600
Total		9 020	8 698	8 379
Operational				
Volumes milled	(000t) (metric)	1 716	1 695	1 774
	(000t) (imperial)	1 893	1 869	1 956
Gold produced	(kg)	9 394	8 828	9 019
	(oz)	302 026	283 827	289 968
Gold sold	(kg)	9 338	8 816	9 020
	(oz)	300 223	283 439	289 999
Grade	(g/t)	5.47	5.21	5.08
	(oz/t)	0.160	0.152	0.148
Productivity	(g/TEC)	93.93	92.28	97.29
Development results				
Total metres		23 089	19 462	23 099
Reef metres		3 159	3 028	3 530
Capital metres		588	599	0
Financial				
Revenue	(Rm)	5 389	5 062	4 942
	(US\$m)	419	372	341
Average gold price received	(R/kg)	577 058	574 165	547 906
	(US\$/oz)	1 397	1 314	1 175
Cash operating cost	(Rm)	3 829	3 677	3 223
	(US\$m)	298	270	222
Production profit	(Rm)	1 590	1 391	1 723
	(US\$m)	123	102	119
Capital expenditure	(Rm)	1 008	717	630
	(US\$m)	78	52	43
Cash operating cost	(R/kg)	407 575	416 493	357 345
	(US\$/oz)	987	953	757
All-in sustaining cost	(R/kg)	514 537	507 368	437 550
	(US\$/oz)	1 245	1 161	939
Safety				
Number of fatalities		2	1	2
Lost-time injury frequency rate per million hours worked		7.80	7.09	6.51
Environment				
Electricity consumption	(GWh)	454	466	453
Water consumption – primary activities	(ML)	2 701	2 719	2 385
Greenhouse gas emissions	(000t CO ₂ e)	441	463	460
Intensity data per tonne treated				
– energy		0.26	0.27	0.26
– water		1.57	1.60	1.34
– greenhouse gas emissions		0.26	0.27	0.26
Number of reportable environmental incidents			0	0
Community				
Local economic development	(Rm)	9	12	13
Training and development	(Rm)	92	74	72

* From FY18, Tshepong and Phakisa have been integrated and reported on as a single entity, Tshepong operations.

Tshepong operations *continued*

Other salient features	
Status of operation	Steady state operation: development continues
Life of mine	17 years
Nameplate hoisting capacity (per month)	283 000 tonnes (312 000 tons)
Compliance and certification	New order mining right – December 2007 ISO 14001 ISO 9001

Mineral reserves as at 30 June 2018

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)
	19.7	5.93	117	3.7	4.84	18	23.5	5.76	135
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	21.7	0.173	3 762	4.1	0.141	581	25.9	0.168	4 343

The Tshepong operations are located in the Free State Province, near Welkom, about 250km from Johannesburg. The Tshepong operations includes the Tshepong and Phakisa mining sections. The close proximity of these sections allowed for this integration, which has resulted in the use of excess hoisting capacity at Tshepong and the debottlenecking of Phakisa's restrained infrastructure. The integration and reporting of the Tshepong operations as a single entity began in FY18. Mining is conducted at depths ranging from 1 600m to 2 600m. Tshepong uses conventional undercut mining and Phakisa primarily uses conventional open mining of the Basal Reef. The B Reef is exploited as a high-grade secondary reef. Ore mined is processed at the Harmony One plant.

Sadly, two fatalities occurred in FY18.

In FY18, the Tshepong operations was the group's second highest contributor to cash flow. Improved production was boosted by increased volumes and higher grades achieved in the first half of the year due to disciplined mining, especially from Phakisa North and the Tshepong decline.

Gold production increased by 6% to 9 394kg (302 026oz) in FY18, primarily due to a 5% increase in underground recovered grade to 5.47g/t (0.160oz/t). Ore milled increased by 1% to 1 716 000 tonnes (1 893 000 tons). The average rand gold price received remained flat at R577 058/kg (FY17:R574 165/kg) (In dollar terms the gold price received increased by 6% mainly due to the strengthening of the Rand/US\$ exchange rate in FY18). Revenue increased year on year to R5 389 million (13% increase to US\$419 million).

Cash operating costs were well contained and increased by only 4% to R3 829 million (increased by 10% to US\$298 million).

Capital expenditure increased by 41% to R1 008 million (increased by 50% to US\$78 million). Capital increased due to higher ongoing development at Phakisa and expenditure related to the Tshepong Sub-71 (nearing completion) and Sub-75 decline projects and ventilation upgrades for purposes of supporting the integration. The optimisation project to support the integration began in FY18. Construction of pump station and refrigeration plant on 66 level will continue in FY19. The Alimak (a mechanical platform used for vertical development) access development was completed in the fourth quarter of the year and the Alimak hole development is scheduled for completion in FY19.

Key deliverables in FY19 will be improving safety performance, reducing costs in all disciplines, adhering to maintenance schedules, quality mining and focusing on the development section in order to sustainably create face length.