

OPERATIONAL PERFORMANCE CONTINUED

SOUTH AFRICA – UNDERGROUND OPERATIONS

Tshepong operations

		FY20	FY19	FY18*
Number of employees				
– Permanent		8 224	8 091	8 347
– Contractors		792	724	673
Total		9 016	8 815	9 020
Operational				
Volumes milled	(000t) (metric)	1 417	1 612	1 716
	(000t) (imperial)	1 562	1 777	1 893
Gold produced	(kg)	7 293	7 967	9 394
	(oz)	234 475	256 146	302 026
Gold sold	(kg)	7 399	7 922	9 338
	(oz)	237 882	254 698	300 223
Grade	(g/t)	5.15	4.94	5.47
	(oz/t)	0.150	0.144	0.160
Productivity	(g/TEC)	73.24	84.62	93.93
Development results				
– Total metres		17 551	23 259	23 089
– Reef metres		3 131	3 323	3 159
– Capital metres		140	809	588
Financial				
Revenue	(Rm)	5 452	4 685	5 389
	(US\$m)	348	330	419
Average gold price received	(R/kg)	736 863	591 331	577 058
	(US\$/oz)	1 463	1 297	1 397
Cash operating cost	(Rm)	4 252	4 008	3 829
	(US\$m)	271	283	298
Production profit	(Rm)	1 154	712	1 590
	(US\$m)	74	50	123
Capital expenditure	(Rm)	930	1 130	1 008
	(US\$m)	59	80	78
Operating free cash flow ¹	(Rm)	270	(453)	552
	(US\$m)	17	(32)	43
Cash operating cost	(R/kg)	583 018	503 033	407 575
	(US\$/oz)	1 158	1 103	987
All-in sustaining cost	(R/kg)	713 202	636 281	514 537
	(US\$/oz)	1 416	1 396	1 245
Average exchange rate	(R/US\$)	15.66	14.18	12.85
Safety				
Number of fatalities		2	4	2
Lost-time injury frequency rate	per million hours worked	5.05	7.75	7.80
Environment				
Electricity consumption	(GWh)	549	466	454
Water consumption – primary activities	(ML)	2 813	2 778	2 701
Greenhouse gas emissions	(000t CO ₂ e)	581	535	441
Intensity data per tonne treated				
– energy		0.39	0.29	0.26
– water		1.98	1.72	1.57
– greenhouse gas emissions		0.41	0.33	0.26
Number of reportable environmental incidents		0	0	0
Community				
Local economic development ²	(Rm)	32	18	9
Training and development	(Rm)	94	86	92

* From FY18, the Tshepong and Phakisa mines were integrated and reported on as a single entity, Tshepong operations

¹ Operating free cash flow = revenue – cash operating cost – capital expenditure ± impact of run of mine (ROM) costs as per operating results

² Figures include R25 million spent on the local economic development projects

Tshepong operations CONTINUED

Other salient features

Status of operation	Steady state operation: development continues
Life of mine	20 years
Nameplate hoisting capacity (per month)	283 000 tonnes (312 000 tons)
Compliance and certification	<ul style="list-style-type: none"> • New order mining right – December 2007 • ISO 14001 • ISO 9001

Mineral Reserve estimates at 30 June 2020

Reserves (metric)	Proved			Probable			Total		
	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
	22.2	5.87	130	4.5	5.48	25	26.7	5.80	155
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	24.4	0.171	4 180	5.0	0.160	800	29.4	0.169	4 980

Overview of operations

The Tshepong operations is a deep-level underground mining operation located in the Free State, near the town of Welkom, approximately 250km from Johannesburg. It is an integrated mining complex that includes the Tshepong and Phakisa underground mines/sections. The amalgamation and reporting of the Tshepong operations as a single entity began in FY18. The close proximity of these two mines has allowed for the integration of operations, which has facilitated the use of excess hoisting capacity and underused infrastructure at Tshepong and the de-bottlenecking of Phakisa's restrained infrastructure. Given that Tshepong is our largest mining complex, our plan is to mine this orebody for the next 20 years.

The Tshepong section is a mature underground operation that uses conventional undercut mining, while the Phakisa section, which is a newer mine, uses the conventional undercut and opencut mining method. Rock from Phakisa is transported via a rail-veyor system to the Nyala shaft, from where it is hoisted to surface. The principal gold-bearing orebody exploited by both sections is the Basal Reef with the B Reef being mined as a high-grade secondary reef. Mining is conducted at depths ranging between 1 500m and 2 300m. The ore mined is processed at the Harmony One plant with gold being recovered using the gold cyanide leaching process.

Operating performance FY20

Regrettably, two fatalities occurred at the Tshepong operations in FY20. As the first of these was a result of a fall-of-ground incident which occurred early in the first quarter, we focused efforts on fall of ground golden controls and installing additional permanent steel netting and finding a solution to secure these nets close to the face using blast on support in an attempt to eliminate further fall of ground injuries.

In FY20, Tshepong was the group's largest operation (contributing 19% of group gold production). Challenges arising from load shedding and operating restrictions resulting from the Covid-related lockdown levels, inevitably resulted in a decline in production year on year. These challenges resulted in a 12% drop year on year in the volume of ore milled to 1.417Mt. However, the decline in volume was countered by a 4% increase in the recovered grade to 5.15g/t. Total gold production for FY20 was 8% lower at 7 293kg (234 475oz).

Operating free cash flow of R270 million (US\$17 million) was recorded in FY20, which was a significant improvement on the R453 million (US\$32 million) loss recorded in FY19. The financial performance was aided by the substantial increase in the gold price during the first half of 2020. The average rand gold price received increased by 25% to R736 863/kg. Revenue increased 16% year on year to R5 452 million (5% increase to US\$348 million). Cash operating costs increased by 6% to R4 252 million (decreased by 4% to US\$271 million) mainly due to annual wage and Eskom electricity tariff increases.

Capital expenditure decreased by 18% to R930 million (decreased by 26% to US\$59 million), largely due to the fact that all such expenditure was suspended during the national lockdown in April 2020 and the subsequent phased start-up of operations.

Outlook for FY21

The key focus for FY21 will be to improve the mine's operational flexibility, especially on development. We hope to achieve higher outputs per crew and ultimately drive up the volume and mine at the reserve grade.