

PERFORMANCE BY OPERATION continued

South Africa – underground operation Tshepong Operations

		FY21	FY20	FY19
Number of employees				
– Permanent		8 292	8 224	8 091
– Contractors		872	792	724
Total		9 164	9 016	8 815
Operational				
Volumes milled	(000t) (metric)	1 558	1 417	1 612
	(000t) (imperial)	1 718	1 562	1 777
Gold produced	(kg)	7 419	7 293	7 967
	(oz)	238 526	234 475	256 146
Gold sold	(kg)	7 353	7 399	7 922
	(oz)	236 404	237 882	254 698
Grade	(g/t)	4.76	5.15	4.94
	(oz/t)	0.139	0.150	0.144
Productivity	(g/TEC)	74.59	73.24	84.62
Development results				
– Total metres		20 813	17 551	23 259
– Reef metres		2 385	3 131	3 323
– Capital metres		1 000	140	809
Financial				
Revenue	(Rm)	6 214	5 452	4 685
	(US\$m)	403	348	330
Average gold price received	(R/kg)	845 031	736 863	591 331
	(US\$/oz)	1 707	1 463	1 297
Cash operating cost	(Rm)	4 919	4 252	4 008
	(US\$m)	319	271	283
Production profit	(Rm)	1 349	1 154	712
	(US\$m)	87	74	50
Capital expenditure	(Rm)	1 112	930	1 130
	(US\$m)	72	59	80
Operating free cash flow ¹	(Rm)	183	270	(453)
	(US\$m)	12	17	(32)
Cash operating cost	(R/kg)	663 030	583 018	503 033
	(US\$/oz)	1 339	1 158	1 103
All-in sustaining cost	(R/kg)	815 333	713 202	636 281
	(US\$/oz)	1 647	1 416	1 396
Average exchange rate	(R/US\$)	15.40	15.66	14.18
Safety				
Number of fatalities		2	2	4
Lost-time injury frequency rate	per million hours worked	5.44	5.05	7.75
Environment				
Electricity consumption	(GWh)	566	549	466
Water consumption – primary activities	(MI)	2 940	2 813	2 778
Greenhouse gas emissions	(000tCO ₂ e)	590	581	535
Intensity data per tonne treated				
– Energy		0.36	0.39	0.29
– Water		1.89	1.98	1.72
– Greenhouse gas emissions		0.38	0.41	0.33
Number of reportable environmental incidents		–	–	–
Community				
Local economic development	(Rm)	19	32	18
Training and development	(Rm)	86	94	86

¹ Operating free cash flow = revenue – cash operating cost – capital expenditure as per operating results.

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 2021

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)
	20	5.77	116	4.7	4.46	21	24.7	5.53	137
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	22.1	0.168	3 722	5.2	0.130	672	27.3	0.161	4 394

Overview of operations

Tshepong Operations is a deep-level underground mining operation in the Free State, near the town of Welkom, some 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 proximity of these two mines has allowed for the integration of operations, in turn facilitating the use of excess hoisting capacity and underused infrastructure at Tshepong section and debottlenecking Phakisa's restrained infrastructure. Given that Tshepong Operations 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 newer Phakisa section uses the conventional undercut and open-cut mining method. Rock from Phakisa is transported via a railveyor system to 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 mined as a high-grade secondary reef. Mining is conducted at depths of 1 500m to 2 300m. Ore mined is processed at the Harmony One plant, with gold recovered using the gold cyanide leaching process.

Operating performance FY21

Regrettably, there were three fatalities at the Tshepong Operations in FY21, two in the second quarter and one in the third quarter. We focused on fall-of-ground golden controls, installing additional permanent steel netting and finding a solution to secure these nets close to the face using blast on support to eliminate further fall-of-ground injuries. The lost-time injury frequency rate deteriorated 8% to 5.44 per million hours worked (FY20: 5.05). The management team remains committed to improving the safety performance of the operation. Refer to **Safety and health** in the **ESG report** for more information on the causes of injury and management's safety approach.

In FY21, Tshepong Operations was the group's largest contributor of gold production (16%) and the fourth-largest in production profit (11%). Higher productivity and improved mining efficiencies were achieved as there were no interruptions as a result of lockdowns in FY21. Gold production and volume of ore milled increased 2% to 7 419kg (238 526oz) (FY20: 7 293kg, 234 475oz) and 10% to 1 558 tonnes (FY20: 1 417 tonnes) respectively, mainly due to improved mining efficiencies, as there was an 8% decrease in underground recovered grade to 4.76g/t (FY20: 5.15g/t).

Revenue rose 14% to R6 214 million (FY20: R5 452 million) mainly due to the 15% increase in average gold price to R845 031/kg (FY20: R736 863/kg). Cash operating costs were up 16% to R4 919 million (FY20: R4 252 million) mainly due to annual wages and electricity tariff increases as well as additional crews to improve production. Capital expenditure increased 20% to R1 112 million (FY20: R930 million) mainly for ongoing development and plant optimisation. Operating free cash flow of R183 million was recorded in FY21 compared to R270 million in FY20, reflecting high cash operating costs and capital expenditure relative to a moderate revenue increase.

Outlook for FY22

The key focus for FY22 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. The safety of employees will remain a top priority.

