OPERATIONAL PERFORMANCE

Kusasalethu

		FY17	FY16	FY15
Number of employees				
– Permanent		4 050	3 944	3 898
– Contractors		538	539	1 020
Total		4 588	4 483	4 918
Operational				
Volumes milled	(000t) (metric)	607	668	908
	(000t) (imperial)	670	736	1 001
Gold produced	(kg)	4 394	3 863	3 953
	(oz)	141 270	124 198	127 092
Gold sold	(kg)	4 498	3 822	4 297
	(oz)	144 614	122 880	138 151
Grade	(g/t)	7.24	5.78	4.35
	(oz/t)	0.211	0.169	0.127
Productivity	(g/TEC)	89.05	77.80	65.59
Development results				
Total metres		5 101	7 183	13 777
Reef metres		1 185	1 517	2 436
Capital metres		0	0	59
Financial				
Revenue	(Rm)	2 575	2 078	1 939
	(US\$m)	189	143	169
Average gold price received	(R/kg)	572 376	543 633	451 211
	(US\$/oz)	1 309	1 166	1 226
Cash operating cost	(Rm)	2 019	1 848	1 866
	(US\$m)	148	127	163
Production profit/(loss)	(Rm)	494	262	(57)
	(US\$m)	36	18	(5)
Capital expenditure	(Rm)	289	360	463
	(US\$m)	21	25	40
Cash operating cost	(R/kg)	459 422	478 277	472 112
	(US\$/oz)	1 051	1 026	1 283
All-in sustaining cost	(R/kg)	541 247	584 498	587 406
	(US\$/oz)	1 238	1 254	1 596
Safety				
Number of fatalities		0	2	1
Lost-time injury frequency rate per million hours wo	orked	10.29	7.06	25.80
Environment				
Electricity consumption	(GWh)	616	611	682
Water consumption – primary activities	(ML)	613	1 671	1 342
Greenhouse gas emissions	(000t CO ₂ e)	610	620	702
Intensity data per tonne treated				
– energy		1.01	0.91	0.75
– water		1.00	2.50	1.48
- greenhouse gas emissions		0.10	0.91	0.77
Number of reportable environmental incidents		3	1	1
Community				
Local economic development*	(Rm)	5	5	30
Training and development	(Rm)	45	26	50

^{*} Included in the total for FY15 is an amount of R18 million that was capitalised as part of the hostel upgrades (FY16: R0 million, FY17: R0 million)

Kusasalethu continued

Other salient features				
Status of operation	Positioned for profitability			
Life of mine	5 years			
Nameplate hoisting capacity (per month)	172 000 tonnes (190 000 tons)			
Compliance and certification	New order mining right – December 2007			
	ISO 14001			
	ISO 9001			
	Cyanide Code			

Mineral reserves as at 30 June 2017

	Proved reserves			Probable reserves			Total mineral reserves		
Reserves (metric)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
	4.3	6.95	30	0.6	6.18	4	4.9	6.85	34
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	4.7	0.203	959	0.7	0.180	129	5.4	0.200	1 088

Kusasalethu is located about 90km from Johannesburg, near the provincial border of Gauteng and North West Province, in the West Witwatersrand Basin where it mines the Ventersdorp Contact Reef as its main ore body. The mine comprises twin vertical and twin sub-vertical shaft systems, and uses conventional mining methods in a sequential grid layout. Mining is conducted to a depth of 3 388m, making it Harmony's deepest mine. Ore mined is treated at the Kusasalethu plant.

Kusasalethu achieved one million fatality-free shifts on 31 January 2017. Regrettably, post year-end, a seismic event triggered a fall-of-ground accident which led to five fatalities.

At the end of FY16 it was resolved that Kusasalethu's life of mine would be reduced from 25 years to five years to optimise cash flow and access the higher grade areas of the mine. Kusasalethu generated a profit and free cash flow in FY17. The recovered gold grade increased by 25% to 7.24g/t (0.211oz/t), which offset a 9% reduction in the volume of ore milled to 607 000 tonnes (670 000 tons), resulting in a 14% increase in gold production to 4 394kg (141 270oz).

The operation was impacted by illegal industrial action during January 2017 and March 2017. Management instituted disciplinary measures against the instigators and the AMCU branch leadership. Employee and union relations after the illegal industrial action were largely stable.

Critical infrastructure and related maintenance repair work was conducted at Kusasalethu over the extended Easter break. A notable reduction in unplanned infrastructure stoppages was evident following the maintenance work conducted.

Revenue increased by 24% to R2 575 million in FY17 (increased by 32% to US\$189 million) as a result of the higher average rand gold price received and increased production.

Cash operating costs increased by 9% to R2 019 million (17% to US\$148 million) due to wage increases, higher electricity tariffs and costs associated with the maintenance work conducted.

Capital expenditure decreased by 20% to R289 million (16% decrease to US\$21 million). The variance was mainly due to the slow-down in ongoing capital development as a result of Kusasalethu's reduced life of mine.