

# GENERAL MANAGER'S REPORT

It is a great pleasure to present, for the first time, the operational performance at Northam. This operational review provides a detailed report on the core areas of development, mining and metallurgy, with an overview of our safety and health initiatives and progress.

## DEVELOPMENT

Development on the Merensky horizon increased by some 35% to 11 102 metres compared with the previous year, primarily as a result of

excellent progress made in advancing the 3, 5 and 8 levels to the first raise line position west of the 20 line fissure.

Two level has reached the position of the water-bearing 20 line fissure.

Sealing delays of up to six months are expected in order to safely advance through this feature. On 6 and 7 levels, sealing delays of 6 and 9 months respectively are expected before these levels traverse the fissure. Development on 4 level has traversed the fissure and can now advance to the position of the first raise line.

A broadening of a zone of NP2 upper transition within the south east quadrant of the mine has sterilised ground previously expected to be available for mining. This has negatively impacted the extraction ratio in this area, and resulted in an increased development requirement per square metre stoped.

Development to the east on 8, 9, 10 and 11 levels has progressed slowly. This is due to difficult ground conditions associated with low angle dykes which have necessitated the installation of significantly increased secondary support, and has hampered progress in delineating reserves in the south east quadrant of the mine.

Overall however, the higher development rates have had a positive result in increasing the

| Merensky reef                                 |           |           |
|-----------------------------------------------|-----------|-----------|
|                                               | F2006     | F2005     |
| Development metres                            | 11 102    | 8 218     |
| Square metres mined                           | 277 896   | 280 635   |
| Tonnes milled                                 | 1 424 160 | 1 434 198 |
| Head grade (g/t 3PGE+Au)                      | 6.1       | 6.2       |
| PGMs in concentrate produced                  | 7 417     | 7 645     |
| Ore reserve availability (months)             | 21        | 18        |
| UG2 reef                                      |           |           |
| Development metres                            | 2 818     | 2 913     |
| Square metres mined                           | 138 170   | 110 258   |
| Tonnes milled                                 | 878 924   | 715 946   |
| Head grade (g/t 3PGE+Au)                      | 4.5       | 4.4       |
| PGMs in concentrate produced                  | 3 226     | 2 470     |
| Ore reserve availability (months)             | 26        | 18        |
| Combined reefs                                |           |           |
| Development metres                            | 13 920    | 11 131    |
| Square metres mined                           | 416 066   | 390 893   |
| Tonnes milled                                 | 2 303 084 | 2 150 144 |
| Head grade (g/t 3PGE+Au)                      | 5.5       | 5.6       |
| PGMs in concentrate produced from underground | 10 643    | 10 115    |
| PGMs from other sources                       | 604       | –         |



Matthews Nzimande, General Manager

immediately available Merensky ore reserve from 18 months at the end of the last financial year to 21 months this year.

Development on the UG2 horizon was slightly lower than last year at 2 818 metres. This decrease however had no impact on the ore reserve position, which increased from 18 to 26 months, due in the main to improved UG2 extraction.

#### 14 LEVEL DEEPENING PROJECT

This project is a continuation of the strategy started in the late 1990s to incrementally extend the mining infrastructure down dip of 12 level via a conveyor decline to access the deeper resources.

Good progress continues on this project, with development having been established on 14 level. Infrastructure to access an

estimated 3.1Mt and the construction of ore passes is in progress. The decline has progressed to 15 level, where an overrun has been developed to allow for future deepening. A second access has been established between 15 level and 13 level and is being equipped as a travelling way.

14 level should start generating tonnage during the last quarter of the 2007 financial year, supplementing the 10 000 steady state tonnes per month from 13 level.

#### MINING

Total metals produced from underground during the year under review increased to 10 643 kg (3PGE+Au), some 5% higher than the previous year. This, together with 604 kg from reverts and other sources resulted in total metals production of 11 247 kg or

361 599 ounces. This was 11.2% higher than the previous year and represents the best production yet achieved by Northam.

Square metres mined on the Merensky horizon were 1% lower than the previous year, and tonnage milled was consequently lower at 1 424 160 tonnes. The average head grade decreased marginally to 6.1g/t from 6.2g/t as a consequence of increased dilution resulting from mining higher quantities of the rolling NP2 and irregular FWP2 facies.

Production from the more conformable UG2 reef horizon has made an excellent contribution to the overall results, delivering on the initial potential identified for this expansion project. Square metres mined increased by 25%. This in turn led to tonnage milled increasing by 23% year on year to 878 924 tonnes. The average head grade increased to

| Metallurgical infrastructure<br>Key data |                                  |               |                           |                                |
|------------------------------------------|----------------------------------|---------------|---------------------------|--------------------------------|
| Description                              | Date of commissioning            | Capacity      | Current volume throughput | Function                       |
| Merensky concentrator                    | 1993                             | 150 000 tpm   | 130 000 tpm               | Crushing, milling flotation    |
| UG2 concentrator                         | 2000                             | 75 000 tpm    | 75 000 tpm                | Crushing, milling flotation    |
| Smelter                                  | 1993 (scheduled rebuild in 2003) | 15MW          | 10MW                      | Drying, smelting, converting   |
| Base metals removal plant                | 1993                             | 360 tpm matte | 330-340 tpm               | Atmospheric and pressure leach |

## GENERAL MANAGER'S REPORT CONTINUED

4.5g/t from 4.4g/t as a result of excellent mining control.

The higher UG2 volumes resulted in increased rhodium and palladium output. Rhodium rose by more than 39% to 762 kg (24 499 oz), whilst palladium production increased by 12% to 3 428 kg (110 212 oz). Platinum production increased by 8% to 6 826 kg (219 459 oz), and gold by 7% to 231 kg (7 427 oz).

Predictably, the higher production volumes had a positive impact on

unit cash operating costs, which decreased marginally to R109 677/kg (3PGE+Au). On a Rand/tonne milled basis unit cash costs increased by 3.3% to R536/tonne milled.

### METALLURGICAL PERFORMANCE

The metallurgical plants operated satisfactorily during the year. The Merensky concentrator achieved a marginally lower overall recovery of 88.0% (F2005:88.3%) owing to slightly lower base metal grades, a function of increased tonnage from

the Merensky NP2 reef. The presence of base metal sulphides generally assists PGM recoveries.

The external sparger column cell, introduced into the UG2 concentrator as a final concentrate cleaner last year, together with high energy flotation cells installed on the cleaner circuit, contributed to an excellent performance by the plant. Average recoveries for the year improved to 83.2% from 80.5% in the previous year. By year end, recoveries of up to 85% were being

| Metals produced in concentrate |        |         |        |         |
|--------------------------------|--------|---------|--------|---------|
|                                | F2006  |         | F2005  |         |
|                                | kg     | oz      | kg     | oz      |
| Platinum                       | 6 826  | 219 449 | 6 297  | 202 459 |
| Palladium                      | 3 428  | 110 215 | 3 056  | 98 255  |
| Rhodium                        | 762    | 24 508  | 547    | 17 619  |
| Gold                           | 231    | 7 427   | 215    | 6 881   |
| Total (3PGE+Au)                | 11 247 | 361 599 | 10 115 | 325 214 |
| Other PGMs                     | 1 655  | 53 209  | 1 649  | 53 016  |
| Total                          | 12 902 | 414 808 | 11 764 | 378 230 |
| Copper (tonnes)                | 944    |         | 953    |         |
| Nickel (tonnes)                | 1 815  |         | 1 677  |         |
| Metals sales                   |        |         |        |         |
| Platinum                       | 6 892  | 221 577 | 6 098  | 196 056 |
| Palladium                      | 3 413  | 109 724 | 2 937  | 94 420  |
| Rhodium                        | 749    | 24 084  | 687    | 22 093  |
| Gold                           | 231    | 7 436   | 200    | 6 423   |
| Total (3PGE+Au)                | 11 285 | 362 821 | 9 922  | 318 992 |
| Other PGMs                     | 1 594  | 51 251  | 1 451  | 46 651  |
| Total                          | 12 879 | 414 072 | 11 373 | 365 643 |
| Copper (tonnes)                | 944    |         | 958    |         |
| Nickel (tonnes)                | 1 758  |         | 1 626  |         |



achieved. In addition, the reduction of 18.1% in the chrome ( $\text{Cr}_2\text{O}_3$ ) content of UG2 concentrate has allowed for a higher proportion of UG2 ore in the blend dispatched to the smelter.

During the year, total smelter feed was some 25% higher than the previous year, at 95 211 tonnes of concentrate. This included 15 614 tonnes of toll material.

The base metal removal plant performed in line with expectations, producing 944 tonnes of copper cathode and 1 815 tons of nickel metal in the form of nickel sulphate.

A small plant to process furnace slag was constructed and successfully commissioned during the year. The plant is now operational and is expected to process approximately 25 000 tonnes of slag per month at a grade of 1.0g/t. The plant recovery is expected to be in the order of 65%.

#### SAFETY AND HEALTH

Although there was a discernible 30% reduction in the total injuries on the mine, the increase in both the lost time injury incidence rate (LTIIR) of 2.32, and the reportable injury incidence rate (RIIR) of 1.29, point to an increase in the severity of injuries. Nonetheless the fatal injury incidence rate was lower at 0.06, reflecting the tragic death of five employees, four of them in mining-related accidents. Messrs A Theko, R Murrombe and M Mukansi died in a single multi-fatality accident

in February this year.

Mr J Chambule died in September last year after a fall in a stope raise. We are also awaiting the results of the cause of death of Mr Z Musi, who died underground in unexplained circumstances in October last year.

Following on what has been a disappointing safety performance in the past two years, the achievement of one million fatality free shifts after the year end has been a gratifying outcome resulting from a number of safety initiatives, including the back to basics approach in safety management. These initiatives have been complemented also by our extensive and varied support regime, which ranks as among the most rigorous in the platinum industry.

Further analysis of this 'back to basics' approach has highlighted some areas which need further intervention, including the non-adherence to standards, which in turn point to shortcomings in the application of training across disciplines. Recruitment from the industry labour pool indicates that this is an industry-wide phenomenon, rather than one peculiar to Northam.

Of course, we are addressing the situation at Northam; specifically through a re-engineering of on-mine training standards and various retraining initiatives. However, it is clear that an industry-wide drive, involving all stakeholders, is needed to address training standards at a macro level.

In respect of noise-induced hearing loss (NIHL) amongst employees, there has been an encouraging 27% decline in the number of cases submitted for compensation during the year under review. This points to the excellent collaborative effort between the Northam safety and health structures and those of the DME in a commendable industry-wide move to eliminate NIHL and silicosis.

Further detail on safety and health is available in the sustainable development report on page 40.

#### OUTLOOK

A satisfactory operating performance, coupled with record metal prices meant that our financial results for the year under review were outstanding. It is unlikely that we can repeat the record production in the year ahead. We expect to encounter more difficult Merensky ground conditions, and are thus unlikely to be able to maintain production from underground sources at the levels attained in the year under review.

My thanks go to each and every employee at Northam, who have once again illustrated their ability to produce excellent results in difficult conditions. I am confident that this track record, our capacity and expertise, provide a platform for us to continue to rise to the challenges of the future.

Matthews Nzimande  
General Manager  
15 September 2006