

Operational review (continued)

The Heraeus Refinery South Africa – a modular approach

		
Phase 1:	Phase 2:	Phase 3:
FMR*	FPYR**	Extended Refinery
200 000 Pt oz	300 000 Pt oz	400 000 Pt oz
■ Commissioned February 2007 ■ Northam's concentrate shipped to Heraeus in Hanau ■ Pt and Pd separated into intermediate products in first pass yield extraction. ■ Intermediate products (Pt and Pd) returned to HRSA and refined to pure Pt and Pd in FMR ■ Other PGMs continue to be refined in Hanau	■ Northam's PGM concentrate shipped directly to HRSA in Port Elizabeth ■ Pt and Pd stripped out as intermediate products ■ Final purification of Pt and Pd to take place in FMR ■ Other PGMs shipped to Heraeus, Hanau for further refining. ■ PGMs available to local industry for beneficiation into downstream high value products.	■ The extended refinery consolidates operations of FMR and FPYR ■ Only refining residues to be shipped to Hanau for final treatment ■ PGMs available to local industry for beneficiation into downstream high value products.

* Fine Metal Refinery

** First Pass Yield Refinery

Northam and Heraeus

To refine its production of precious metals from underground ores into high-purity sponges and ingots, Northam continues to benefit from the long-standing agreement with globally renowned precious metals refiners W.C Heraeus. Northam's first arisings of PGM concentrate were shipped to the W.C Heraeus refinery in Hanau in October 1992; to date Heraeus has toll-refined some 2.8Moz of Northam's platinum.

The origins of Heraeus's global capability have become almost legendary in modern industry. Born from the entrepreneurial spirit of Wilhelm Carl Heraeus, a pharmacist and chemist working in Hanau, Germany in 1851, the company pioneered the capability to melt raw platinum using an oxyhydrogen flaming technique, and thus the first platinum melting house in Germany was soon established and grew to meet the demands of new industry and jewellery.

At the turn of the 20th century, there appeared to be no end in sight for platinum demand as early industrialists sought large quantities of platinum-rhodium alloys to apply as chemical catalysts in the production of nitric acid.

More than one hundred years on, in July 2004, Northam and Heraeus submitted a joint application to the DME seeking approval to establish a new PGM refinery in South Africa, and the Heraeus refinery in Port Elizabeth was officially opened by Dr Roland Gerner of W.C. Heraeus, on 3 February 2007.

There can be no doubting the significance of this event, which underscores Northam's intention to maintain its positioning in the global marketplace as a reliable, independent and competitive supplier of high quality refined PGMs.