

Project pipeline

A well-developed project pipeline is the lifeblood of a mining company. Kumba's pipeline in South Africa and beyond ranges from potential study phase to implementation, positioning the group well to meet its target of more than doubling export production capacity by 2013.

Kumba has an exciting project pipeline of opportunities supporting its intention to double export production capacity to over 45Mtpa by 2013. The group will capitalise on the full potential of the substantial Northern Cape iron ore resources it controls, and it has access to other opportunities in West Africa, including exploration activities in Guinea detailed below.

Some South African opportunities, however, depend on the expansion of the Sishen-Saldanha export channel and on new markets. Kumba is, therefore, actively engaged in securing co-operation and participation from the parties concerned.

The fact that Kumba has an exciting project pipeline ensures that the group can build a core team and deploy them on future growth opportunities. Kumba has also forged strategic alliances with Anglo Technical Services and some external core project management professionals who will strengthen the ability of the team to deliver on these challenges. The Sishen Expansion Project detailed below has provided a steep learning curve to further improve our project management and execution skills.

Sishen Expansion Project (SEP)

In early 2005, the board of Kumba Resources approved R5.1 billion to develop SEP and expand its production capacity by 13Mtpa.

The SEP project uses jig pulsating technology to separate iron-bearing material from waste material, and is less expensive and better suited to upgrading lower-grade ore. The final product has a slightly lower iron content at 64% for lump and 63.5% for fine ore, compared to normal Sishen Mine ore which is 66% and 65% respectively.

SEP experienced a number of delays in the execution phase. To date, most sections have been commissioned and good progress has been made in 2008. Delays were primarily due to the late delivery of the primary and secondary crusher systems, and contractor skills shortages.

SEP is expected to produce 8Mt in 2008 and to be completed within budget and at full 13Mt capacity in 2009. Kumba plans to add a fines beneficiation circuit (SEP1B) to SEP that will produce an additional 400,000tpa of fine ore at an expected capital cost of R100 million. Implementation is expected to begin in 2010.

Sishen South project

This project involves developing a greenfields opencast operation on a group of iron ore bodies some 80km south of Sishen Mine.

The feasibility study to develop a 9Mtpa operation was completed in mid-2007 and cost estimates finalised to produce a range of products similar to SEP. Implementation depends on finalisation of expansion plans for the Sishen-Saldanha export channel and associated commercial arrangements. Mining rights are anticipated to be granted in the first half of 2008.

Sishen Expansion Project II

This entails a pre-feasibility study on increasing production by using medium- and low-grade resources at Sishen. This included an evaluation of the mine's existing product strategy to ensure its alignment with future market developments and existing mining resources and production facilities.

The pre-feasibility should be completed this year and the feasibility study during 2009. Commencement of first production is anticipated after 2013 with an expected life of 20-30 years.

Sishen C-grade project

The Sishen C-grade fine ore project will seek to apply jigging technology to beneficiate material in the 40-50% Fe range and produce fine ore of similar qualities to those produced in the jig plant. The latest capital expenditure estimate is R5.7 billion for a 10Mtpa project.



The journey down the 861km railway line to Saldanha Bay starts at the loading station.

Zandriverspoort project

The former Kumba Resources acquired a 50% interest in the Pietersburg Iron Ore Company (Pty) Limited (PIC) in the 1980s and has conducted extensive exploration and technical studies to develop the project. PIC owns the surface rights for the Zandriverspoort iron ore project, 30km north of Polokwane. Phelps Dodge sold its 50% interest in PIC to ArcelorMittal in December 2004. Since then, the parties have developed a framework for a pre-feasibility study. Exploration activities restarted in 2005 and an updated mineral resource statement is expected by the end of 2008. The evaluation of alternative processing and final product options will be included in the revised pre-feasibility study in 2009. The parties intend to commit to a detailed bankable feasibility study in 2010, if interim studies prove a robust and viable business case.

Export logistics expansion project

Kumba and Transnet concluded an agreement to expand the Sishen-Saldanha export channel in early 2005, increasing the group's contractual iron ore rail allocation on the channel to 35Mtpa. This capacity will be reached in 2009 and overall development is aligned with the expansion of Kumba's production capacity at Sishen Mine.

The industry is currently working with Transnet to finalise plans to expand the export channel to 60Mtpa. This expansion is meant to be completed by 2011, and requires no major port expansion. Kumba is also working with Transnet and other industry participants to expand this channel beyond 60Mtpa.

International

Kumba is conducting a potential iron ore exploration in Guinea. The goal is to complete a conceptual study on the development of an iron ore mine as part of Kumba's growth strategy in West Africa. Kumba will establish a country office in Conakry. With the required approvals, exploration drilling will commence in April 2008, with the conceptual study to be completed by November 2008.

IMBS

Working with Jonah Capital, Kumba has a venture to convert superfine iron ore tailings into metallic iron, using ground-breaking technology (p29).

SEP beneficiation process flow



