

# Green Topics

## Iscor's Heavy Minerals project approved

The Iscor Board has given its Mining Division the authority to proceed with detail engineering and design for a Heavy Minerals Project which comprises a mine in Northern Province near Gravelotte, a mine in KwaZulu/Natal near Richards Bay and a central processing complex with a beneficiation plant and smelter which will be located near Richards Bay and Empangeni.

This decision follows on the strategic acquisition of the controlling share of the Australian company Ticor Limited in 1995 to gain entry into the world's heavy minerals industry. 'This is a demonstration of Iscor's commitment to diversify its minerals and mining business' says Iscor Mining MD Ben Alberts.

The approval to proceed with the detail engineering and design follows on four years of intensive exploration, evaluation and feasibility assessments costing in the region of R90 million.

The project which will cost R1,65 billion will be capable of producing:

Titania slag	220 000 tons per annum
Pig iron	130 000 tons per annum
Rutile	15 000 tons per annum
Zircon	35 000 tons per annum

These products will be exported via Richards Bay to world markets and will generate more than R750 million in foreign exchange as from 2000.

Subject to the final approval of Iscor's Environmental Management Programme (EMPR), mining could start at Hillendale near Richards Bay/Empangeni in June 1998, followed by Gravelotte in 2000. The combined reserves of both locations are sufficient for a mining life of 20 years.

Alberts says that Iscor's deposits near Wavecrest in the Eastern Cape will not be mined until the next century. 'The environmental impact of mining at Wavecrest and the current lack of infrastructure in the area will be major considerations for a feasibility study due to start in 1997.'

The environmental impact assessments of mining operations in the Northern Province and Kwazulu/Natal were conducted by Walmsley Environmental Consultants and the CSIR. Their findings and the input from the public participation programmes in both areas resulted in more than twenty specialist studies conducted on sensitive issues such as water usage, waste management and rehabilitation.

The areas to be mined in Kwazulu/Natal are currently under sugar cane and timber and in the Northern Province the land is used for grazing.

'Over the next twenty years, a total of 3 500 ha in the Northern Province and 740 ha in Kwazulu/Natal will be mined. By using a strip mining technique, no more than 120 ha at either of the mining locations will be out of the commercial farming cycle at any one time', Alberts says.

A dry mining operation in the Northern Province and high pressure water monitors in Kwazulu/Natal will allow water usage to be kept to the absolute minimum.

A wet beneficiation process will be used to separate the heavy minerals from tailings and dry beneficiation processes will extract minerals from the concentrate. The concentrate will be railed from Gravelotte and transported by road from Hillendale to the smelter site at Richards Bay/Empangeni for further processing and smelting. The smelter could be commissioned by February 1999 and reach full production by July 2000. Electricity is used for the smelting process and relatively small quantities of waste and emissions will be generated.

When in full production Iscor's titanium slag is expected to boost South Africa's total titanium slag production by approximately 20%. This will ensure South Africa continues to be the largest producer of titania slag in the world, followed by Canada and Norway. Titanium slag and rutile are used to produce titanium dioxide pigment, a non-toxic and biological inert product which is used in paint, plastic, and paper processes to impart a brilliant, glossy, white colour. The high-purity pig iron produced by the smelter will be used to strengthen the steel used in safety-critical applications such as vehicle brake calipers and steering parts.

When fully operational Iscor's project will sustain some 900 permanent jobs and provide an important economic stimulus to both the Gravelotte and Richards Bay/Empangeni areas. During the development and construction stage of the project, as many as 2000 jobs will be created and 85% of all the materials and equipment required will be sourced in South Africa.

Ben Alberts says: 'The project reflects Iscor's commitment to their vision to increase their mineral business. The environmental impact assessments and studies undertaken during the planning stage of the project, were the most extensive and professional ever conducted by Iscor with the assistance of independent consultants. The input from the public and specialist groups is greatly appreciated and has provided a solid basis for Iscor's policy of responsible environmental management and good neighbourliness with its surrounding communities at both the mining and smelting locations'. ♦

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