

## Mining companies embrace regional initiative

Collaboration between mining companies and the BCLME Programme should improve our understanding of the environmental impacts of marine diamond mining in the Benguela region.

The Benguela Current Large Marine Ecosystem (BCLME) Programme is a joint initiative between Angola, Namibia and South Africa that aims to facilitate the sustainable management of the globally important Benguela Large Marine Ecosystem. The regional initiative is funded by the Global Environment Facility (GEF), which is contributing US\$15.2 million (R121m) to the Programme through the United Nations Development Program (UNDP); complementing an investment of approximately US\$16 million (R128m) by the three countries and over US\$7 million (R56m) from other sources such as the Benguela Environmental Fisheries and Training Programme (BENEFIT).

The BCLME is one of the world's most productive marine environments and, while its integrity is still largely intact relative to other coastal regions of the world, the ecosystem faces accelerating threats, which if left unchecked, might threaten vital economic and ecological values. The goal of the BCLME Program is to achieve sustainable integrated management and protection of the Benguela Current ecosystem.

### Support from mining companies

Marine diamond mining companies in South Africa and Namibia have supported the BCLME Program since its inception in 1995, through to the endorsement of a Strategic Action Plan which was signed by seven ministers from the participating countries in 1999.

More recently, members of the Marine Diamond Miners Association (MDMA) of South Africa, and Namdeb Diamond Corporation in Namibia, have identified and reached consensus on the core environmental concerns around marine diamond mining in the Benguela region, and formulated a series of project proposals which address these concerns.

The representative of marine mining companies at the BCLME Program, Ralton Maree of De Beers Marine, explains:

"Because there are many stakeholders in the marine diamond mining industry, we got together and created a forum outside the BCLME Program that was tasked with formulating project proposals to present to the mining and petroleum task group of the BCLME Program," he says. The task group meets regularly in Luanda, Angola, the centre of the BCLME's Biodiversity, Ecosystem health and Pollution Activity Centre.

"At this point we're looking at four projects that will address environmental issues in the marine diamond mining sector."

The four project proposals cover a wide range of environmental issues that are pertinent to the exploration and extraction of marine minerals. For instance, a project on policy harmonisation proposes to test the differences in environmental policy and legislation between the three participating countries and to recommend areas in which policy harmonisation would be beneficial.

"The project will highlight the gaps in legislation between the three countries and make recommendations," explains Maree. "The idea is that the BCLME Programme puts the structures in place, generates the activities that highlight the (legislative) differences and provides a platform from which to motivate for the changes that may be needed."

### Assessing cumulative effects

Another of the marine mining project proposals is a recommended assessment of the cumulative effects of sediment discharge from near-shore diamond mining on the Benguela current ecosystem. Although there have been many individual studies to test the impact of diamond mining on benthic communities - and the west coast rock lobster resource in particular - the cumulative effects of diamond mining, remain untested.

"The BCLME Program provides a unique opportunity to collate a range of different information," says Maree.

"For instance, mining companies are obliged to complete an environmental impact assessment before they begin mining... so they may conduct several EIAs in several different areas, but seldom is this information collated and the broad picture examined. This isn't justified by their budgets, simply because it is not a pre-requisite for individual

operations." The Program also provides a unique opportunity for mining companies to collaborate, says Maree.

"We have got all the stake holders involved... so if the projects are accepted (by the BCLME Program) and go ahead, that will contribute to the co-operation between companies, because they have all been part of this process."

Maree says that the mining and petroleum task group of the BCLME Program contains a strong industry component and there is potential for the projects that are initiated under the banner of BCLME to be co-funded by industry when the BCLME Program comes to an end in 2007.

"The BCLME Program does not intend to fund long-term monitoring studies, but may fund baseline surveys designed to provide vital, new information. In order to follow baseline sampling with monitoring projects we will need some sort of commitment from Government and/or industry to fund long-term projects," explains Maree.

### Long term monitoring needed

He says that it would be desirable for diamond mining companies to support long-term monitoring projects through the supply of data. Mining companies very often generate valuable information during the prospecting process and the potential exists for this information to be used for other purposes. For instance, seabed mapping is costly, but may also be useful to oceanographers or marine biologists.

The management focus of the BCLME Program is particularly important, says Maree. Project proposals that are submitted to the BCLME Program must meet strict criteria and should strive to answer clearly formulated questions relating to the management of the BCLME. Studies should also be of a trans-boundary nature and result in benefits for at least two of the participating nations.

The BCLME Program is not about collecting knowledge for knowledge sake, concludes Maree, but to address issues that will improve the management of the Benguela Current ecosystem as a whole.

## **Onsite machining provides option for offshore industry**

**K**&M Onsite Machining, with their wide range of multiple varied machining applications, offers a number of advantages to the offshore industry and has been successfully contracted over the last few years to work on a number of Cape Town's more significant projects.

Undertaking work as a sub-contractor to DCD-Dorbyl, K&M Onsite Machining completed line boring and automated bore welding work onboard the *Omega* during her stay in Cape Town. Working around the clock for four days, two teams consisting of two men each bore welded the gypsum wheels with stainless steel MIG wire.

A further three days was spent line boring the winch main bores to precision bearing sizes using laser alignment to assist the set up. At present K&M Onsite uses an outside company to do their laser alignment, however, Keith Evans informs us that they are presently in the process of purchasing an alignment telescope. This will allow K&M Onsite to complete the precision alignment process themselves.

Also as a sub-contractor, the company undertook onsite machining inside a cofferdam attached to the South Sea Driller at A Berth. According to Martin Dean, this cofferdam used for the oil rig was the biggest one built by DCD-Dorbyl— a situation that

arose due to the fact that the rig could not be dry-docked in the southern hemisphere.

Over a period of five days, two teams of three each, worked around the clock when K&M Onsite undertook the machining of rudderstock and pintel bores. Once again laser alignment was used to assist in the set up during this project.

In a week-long sub-contract aboard the *Polaris*, belonging to Stolt Offshore, K&M Onsite undertook the grinding and super finishing of seal areas on retractable propulsion systems to the satisfaction of Rolls Royce.

Still aboard the *Polaris*, the company line bored two 600 mm bores for the stern frame – a job that took two teams of two three days to complete. A further day was spent machining the outside diameter of the main crane kingpin. This was a complicated set up as K&M Onsite's machine had to be mounted on the inside of the main crane kingpin, here innovative ways were used to adapt their existing machinery.

K&M Onsite Machining Services undertakes the re-machining of crankpins, main journals, thrust collars, liner landings, lower liner guides as well as the machining of stationary shafts, generator shafts, key ways and tapered bores. In addition they also offer line boring, flange facing, groove cutting, bore welding and NDT hardness/roughness testing services. All of these services are guaranteed to manufacturers specifications and carried out with the use of equipment and machining expertise of internationally accepted standards. ■