



JETRIG
JetRig during sampling operations in the ITC

sampling and mining operations in Namdeb's ITC.

This eight-legged jack-up platform is capable of walking in two-metre sliding strides and side-stepping with half-metre traversing strides.

It can also turn around its centre point with a combination of sliding and traversing movements.

The JetRig uses ADP-developed specialised jet-pumping technology to extract the gravel from the swash zone and deliver it to the on-board primary screening plant, where oversize and effluent are discarded and the product is pumped to the beach for further processing. The JetRig's mining system comprises primary and secondary mining arms, which deploy 250-mm and 125-mm jet pumps respectively.

The JetRig's power is supplied from the beach through an HT trailing cable into on-board HT distribution and transformers. The hydraulic power required for the platform and mining systems is supplied from the on-board 160-kW hydraulic power unit (HPU).

ADP, through its agency agreement with Seacore Technologies, has also supplied Namdeb with the SeaWalker, a 120-t Walking Self-Elevating Platform (WSEP).

During 2005 the SeaWalker was used as a secondary mining system in the dredge pond operating alongside the Beachcomber dredge.

The prototype secondary mining system was developed and designed by ADP to test the wet mining depletion of the material left behind by the dredger without the need to

dewater the pond.

The SeaWalker is being prepared to undertake testwork in the ultrashallow water, whereafter it will be used for mining operations using a purpose-designed mining system currently being developed by ADP.

ADP has, between 2003 and 2006, supplied the Namdeb Diamond Corporation in Namibia with four 'De Beers best practice' diamond-recovery plants.

The recently-commissioned Orbit Project (Optimum Recovery by Innovative Technologies), comprises two separate subprojects (optical sorting plant and recovery tailings retreatment systems).

The projects, jointly managed by ADP and Namdeb personnel, delivered the two plants within budget (N\$80 000 000) and under schedule (13 months).

Particularly challenging during the construction of both plants was the level of integration required with existing plant and control systems. Rigorous interface analysis and battery limit definition enabled this to be successfully achieved.

The plants are designed to enable Namdeb to increase the production of the existing Recovery Tails Retreatment plant from 90 000 t/y to 490 000 t/y and to improve the overall recovery efficiency of the existing X-ray recovery plant by 4%, with the possible additional benefits of recovering non-X-ray recoverable and low-luminescent diamonds.

The Elizabeth Bay Recovery

Upgrade Project, commissioned in January 2005, consisted of the engineering, construction and commissioning of a permanent structure dry recovery plant using Deb-Tech X-ray machines, pneumo-drying/conveying, vacuum transfer and jet-pumping technologies.

A particular feature of the E-Bay Recovery was the installation of the first single particle diamond sorter in the De Beers Group, the De Beers-developed Raven Sorter, which enables totally hands-free operation of the plant by producing diamond superconcentrate which is then automatically canned and stored in a vault.

The Namdeb Pocket-Beaches Recovery Plant, commissioned in April 2004, is a totally modular dry recovery plant incorporating infrared drying, Deb-Tech X-Ray machines as well as an automated canning system for the final diamond concentrate. ADP designed, supplied and fully commissioned this facility in less than eight months.

The fusion of ADP's innovative approach and Namdeb's hard-earned experience, imparted by the integrated Namdeb project team members, has been the primary reason for the ability to produce superior, cost-effective and best practice recovery plants.

Further projects under way include a geological sampling recovery as well as the possibility of a new centralised recovery and sorthouse facility to handle both land- and vessel-based production for Namdeb.

MINING WEEKLY COUPON ON PAGE 45 E86833

A proud tradition continued

PHOLA COACHES (PTY) LTD

- Provider of cost effective bus transport services
- Black owned company
- Exemplary safety record



22 to 65 SEATED BUSES

2A Jellico Street Witbank. Tel: 013 656 1400/1/2 Fax: 013 656 1405 Email: info@pholacoaches.co.za