

Pre-owned Bells sparkle for TLC on Lesotho diamond mining project



High mechanical availabilities from its fleet of Bell Articulated Dump Trucks recently saw a company specialising in civil construction and residue mining services getting involved in open-cast diamond mining, almost by default.

This happened despite challenging environmental conditions such as working in snow at high altitudes and in the arctic-like air of a diamond mine situated in the upper reaches of the Maluti Mountains of Lesotho.

Turnkey Civils Lesotho (TCL) is a Lesotho-registered subsidiary company of C & F Construction CC, a civil construction company started in Bethal, Mpumalanga by Chris van Niekerk and Francois Jordaan in 1989. Both founders had previously worked for a large South African civil construction company. Recent additions to the owners' team include civil engineer, Jan-Louw Botha, and mining engineer, Albert van Wyk. We spoke to Albert about the company's Lesotho operations.

"This diamond mine is relatively new and we were first tasked with the construction of essential residue and civil infrastructure, which would enable our clients to start processing the mined kimberlite ore," he explains. "Our first project was the construction of the residue storage facility or tailings dam, and as this facility is situated immediately below the mine but at the top of a valley, more material than normal went into constructing its wall which would be continuously raised as demand increased."

While this facility was being built TCL was asked to build two return water dams. This is where clean water is received from the residue storage facility after solids have settled out and these dams are in the immediate vicinity

of the former. Another important infrastructure project followed soon after when TCL landed the project to build the discharge belt conveyor that conveys the fine waste to the residue storage facility's wall.

"You will appreciate that sustained and almost relentless hauling of soil and rock was the cornerstone of our operation on this mining project and for that we relied heavily on our fleet of Bell Articulated Dump Trucks (ADTs)," Albert continues. "Our company's relationship with Bell Equipment goes back to 1990 when we first bought three Bell 1766 Rigid Haul Tractors hauling 9-cubic metre dump trailers for work on a coal mine near Ermelo. We then moved on to buying Bell B30D and B20D ADTs, mostly new but with some selectively on the pre-owned market. We would also seek out low-hour machines at auctions."

Albert explains that when low-hour Bell ADTs are bought, their respective serial numbers are presented to Bell Equipment's Middelburg Customer Service Centre for verification on maintenance. With this information at hand, decisions are then taken on how to proceed further. C & F Construction has grown to become so familiar with the Bell D-series ADTs that they now undertake the rebuilding of the trucks themselves.

"Our fleet of Bell ADTs has really been the mainstay of our operation on this mining project, which is now a fully operational diamond mine," he adds. "In the early days of the project we hauled big loads down a very long and steep downhill ramp of approximately 20 degrees, which made us very reliant on all-wheel drive traction, transmission retarders and exhaust brakes. Despite this, our Bell ADTs came through for us and, in the process we learned a lot about the equipment's performance and

(From left): Haleokoe Marako (Lesotho Country Manager, TCL), Albert van Wyk (TCL Director), Carel Venter (Bell Equipment Sales Representative) and Gert Claassens (HR & Safety Manager, TCL).



what we need to do to maintain the high mechanical availabilities that the project demanded.”

The company is running a substantial fleet Bell ADTs consisting of 18 Bell B30D ADTs, two Bell B30E ADTs and two Bell B20D ADTs.

“With our preventative maintenance policies and the confidence of doing our own rebuilds, we put very high hours onto our Bell ADTs during continuous operations. Our oldest Bell B30D ADT now boasts 46 000 hours and is still in daily use.”

Albert has high praise for his chief mechanic on the mining site, Flip Kok, who has also trained local Lesotho mechanics. George Geringer and Mike Motlhaleng from Bell Equipment in Bloemfontein assist the TCL maintenance teams. Due to its remote location, urgent supply of parts to the mining site can take a day and for this reason TCL carries a large stockholding of essential consumable spares and service kits.

“We believe that the same trust we have in the D-series Bell ADT due to its simple and uncomplicated design, will be projected onto the Bell E-series ADT of which we currently have six units running here on the mine. We had bought two Bell B30E ADTs, each with a mere

1 000 hours on the clock, and in the space of 30 months we had put 12 000 hours onto each machine at an average of 416 hours a month.”

Although TCL is contracted on dry rates - meaning the mine supplies the diesel fuel - the company has not once overrun its projected monthly fuel consumption, a fact that Albert believes can be put down to the frugal and efficient fuel burn of the Bell ADTs and their Mercedes Benz engines.

“We believe that the proven mechanical availability of our fleet coupled with the economical fuel burn and performance of our Bell ADTs prompted our clients to request that we start mining the open pit,” Albert continues. “Although this is a temporary arrangement as we know another specialised mining contractor will take over in due course, we’ve managed to commence the mining with confidence and on average haul 12 000 tonnes of ore and 10 000 tonnes of waste rock between 1,4km and 1,9km in a 24-hour cycle.”

“Whether we operate in Lesotho or South Africa we’re confident that Bell Equipment will be part of our future endeavours and we look forward to seeing what new and innovative products the company brings to the market.”

