

Fourie Diamante hit pay dirt with Bell and Finlay machines



Alluvial diamond miners rarely own the land that they mine and because of this they take extra care in the rehabilitation of such sites, which in turn stands as good testimony for obtaining more land on which to ply their trade.

These are the thoughts of a third-generation alluvial diamond miner who has turned to modern technology to separate his 'pay dirt', the diamond bearing gravel, from the oversized material that will form the basis of rehabilitating the land that he respects.

David Fourie and his father, Dan, mine the banks of the Riet River in the Northern Cape, between Douglas and Kimberley. David's grandfather, Jan Fourie, had done the same albeit further north in what was to become the North West Province. The skill of reading terrain and gravel has been passed on from one generation to the next.

"Things have changed drastically from when I started in the alluvial diamond mining business, some 50 years ago," says Dan Fourie. "Back then there was a lot more manual labour with picks and shovels and tiny four foot six inch pans that were turned by hand."

Dan's son David was keen to up their production levels after they had established a new diamond mining concern, Fourie Diamante in 2007. "We soon realised that we needed decent haulage equipment with capacity," David says. "It took us a few years to establish our cash flows but by 2012 we could buy a rebuilt Bell B40D Articulated Dump Truck (ADT) from Bell Equipment in Kimberley and that immediately made a difference to the amount of mined gravel we could get to our screens."

In this case, the screens David refers to were two rotary mesh screens set at different apertures to separate the oversized material from the diamond bearing gravel. The Fouries lease land from a farmer and mine it in a responsible manner. Topsoil is stripped and stockpiled for later rehabilitation, as is the overburden, which covers the

diamond bearing gravel. The thickness of the overburden varies between 1 and 4 metres and the gravel on this land is generally about 4 metres deep.

"In 2015 we bought a second used Bell B40D ADT privately but found they could simply not keep up with the amount of gravel we were unloading at the screens," he continues. "We then realised that some serious intervention was needed to fully streamline our production cycle and keep up a constant feed to our two 16-foot pans."

The answer lay in a Finlay 883+ Heavy Duty Screen.

"We really have to thank our local Bell Equipment Sales Representative Eric van der Merwe for his insight here in realising that for us to achieve the production rates we were aiming at, this was the correct equipment for our needs," David says. "Eric knows our industry intimately and is very knowledgeable when advising on the correct equipment for the task at hand."

Fourie Diamante took delivery of a Finlay 883+ Heavy Duty Screen in December 2015 and according to both father and son, the positive change in their production throughput was immediate. A 40-ton excavator loads the run-of-mine material into the Screen's hopper which, with optional hopper extensions fitted, has a massive 10-cubic metre capacity. A sustained throughput of 500 tonnes an hour is easily maintained and this works well for them as they only work during daylight hours. Average fuel burn from the engine delivering 83kW at 12 litres an hour does not break the bank either.

"We realised soon after buying our first Bell B40D ADT that Bell Equipment understands what our business demands are and backs this up with solid technical expertise and good parts availability," David says. "What is important to us is having the correct equipment to mine to our full potential while building a reputation as responsible miners that will ensure we have access to viable land for mining in the future."



From left: Dan Fourie and his son David Fourie, holding the diamond bearing gravel, with Eric van der Merwe, Bell Equipment Sales Representative at the Kimberley CSC.