

Finlay 883+ Screens are a diamond miner's best friend

Two similar mobile screens, each fitted with different tools, and working in closer proximity to each other, are processing pay dirt at phenomenal rates for their owners and helping to take care of the environment as well.

The Finlay 883+ Mobile Screen is fast establishing itself as a benchmark machine in the alluvial diamond mining industry in South Africa. Since Bell Equipment has become the Southern African distributor for this internationally known Irish brand of mobile screens and crushers, many of the bright red machines can be seen dotted around alluvial diamond mining sites, in especially the Northern Cape region.

Two such mining sites are situated within the Vaalbos community ground, close to the banks of the Vaal River, northwest of Barkly-West. The first site we visited is being mined as a joint venture partnership by GF

Diamonds, a partnership of which Ronnie Graven Jnr and Lohan Faber, are the owners. Both Ronnie Jnr and Lohan learnt about alluvial diamond mining and the industry directly from their respective fathers, Ronnie Graven and Banie Faber.

"We've been mining for around 10 years and especially on our previous sites near to Christiana, we mined finer gravels that needed no screening," Lohan says. "It also meant that any oversized material that could not be fed into the pans had to be hauled back to the mining pit for the continuous rehabilitation we do in terms of our Environmental Management Plan, which is strictly monitored by the authorities."

"Here at Vaalbos, we're mining on old ground that had been mined previously and, being so close to the river, we often expose old pits which are now filled with groundwater," he adds. "Coupled to this, we have to



Bell Equipment Sales Representative, Eric van der Merwe (left) with Lohan Faber and Otto Graven.



contend with a lot of clay in the gravels, which makes the ultimate processing a bit more of a challenge.”

To overcome both the challenges associated with clay-rich gravels, as well as avoiding the double-handling of the oversized non-diamond bearing waste, the partners heeded advice given to them by Bell Equipment’s Sales Representative in the area, Eric van der Merwe. He suggested they take a look at how similar operations, with more or less the same challenges, are handled by other miners who make use of Finlay 883+ Screens in an in-pit screening operation.

“This was very good advice and we’re happy that we took it,” Lohan says. “We also fitted the Finlay 883+ Screen with a punch-plate that helps us to descale the clay from the gravels.”

With the Finlay 883+ Screen working in the mining pit, and being mobile, it can be moved as the excavator feeding it, traverses the pit. The larger material though is discarded straight into the mined out area on the oversized conveyor, so avoiding double handling and forming the base layer for subsequent backfilling associated with rehabilitation.

“We’re feeding the Finlay 883+ Screen with a 48-ton excavator and we see a pleasing throughput of around 6 000 tons a day,” Lohan explains. “Our minus-80mm gravels are fed over the fines conveyor, directly into the bins of two 35-ton articulated dump trucks, which haul the pay dirt to another rotary screen where any residual clay is taken off.”

“I can honestly say that this Finlay 883+ Screener has revolutionized our mining for us and has really upped our production,” he says. “We also watch our fuel costs and we can run this machine for two full days before refuelling.”

About a kilometre away, Graven Mining is running a similar Finlay 883+ Screen fitted with different tools, more suited to the geology there. Their machine, bought at the same time as that run by GF Diamonds, has been fitted with a scalper and 32mm mesh to handle the drier and rockier geological conditions. Ronnie Graven Jnr and his older brother Otto, oversee the mining on this site.

“We’re also mining old ground and our stripping ratio is a little higher than closer to the river,” Ronnie Graven (Jnr) tells us. “Our oversized material is also discarded in the pit but any material smaller than 80mm falls directly onto the 32mm mesh and is then loaded directly into the bin of our Bell B40D Articulated Dump Trucks that we use for the short haul to our plant.”

“I echo what Lohan says about the advantages of in-pit screening and the advantages of avoiding double-handling of oversized material,” he says. “I would however like to point out that these Finlay 883+ Screens, with their interchangeable tools, seem to be ideally suited for alluvial diamond mining and as long-standing clients of Bell Equipment and their proven technical backup, we’re confident that we made the right choice with Finlay products.”

