

# Gekko gravity box package for Gold Fields' Agnew

After eight years of reliable ILR success, Gold Fields has upgraded its Agnew gold plant to include a new generation ILR2000 Batch Automatic unit. The upgraded flowsheet also features the implementation of Gekko's innovative Mag-Screen technology.

The plant highlights Gekko's operating philosophy to feed the gravity circuit with cyclone feed material as opposed to cyclone underflow materials. The benefits of this include:

- Fine free gold that would otherwise be entrained into the cyclone overflow stream, passes through the gravity circuit
- Screening and centrifugal concentrator efficiency is higher at lower density
- Gekko's Gravity Box design, and specifically the height, is not limited by the existing cyclone tower. This allows the gravity circuit to be designed in such a fashion that is best for the gravity circuit, without external influences
- The gravity circuit is fed a fully homogenised product that is inclusive of "ALL" free gold in the circulating load.

The Agnew plant is an example of Gekko's ability to provide a complete turnkey solution. This includes metallurgical test work review, flow sheet design, engineering, manufacturing, construction and installation, commissioning and after market service and support. Additional work is ongoing to ensure that the circuit is optimised to its full potential. Recent results from the gravity upgrade have shown a significant step-change benefit from a rise in recoveries (nominal 20-30% gravity recovery benefit and 1.0-1.5% benefit to "overall" plant recovery).



Gold Fields' Agnew project - an example of Gekko's ability to provide a turnkey solution

The advantage of the Gekko Gravity Box package can be realised in both greenfield and brownfield operations. It is the ideal path to take in many instances when a gravity and intensive leach circuit requires upsizing or refurbishment. The solution is becoming increasingly popular with engineering companies as it allows them the luxury of having a complete modular circuit supply inclusive of all the gravity circuit requirements.

In many cases this saves significant time and money, and has the added benefit of utilising Gekko Systems' specialised gravity knowledge and design skills. The staff on site at Agnew have been very supportive and of great assistance throughout the design, manufacturing, installation and commissioning. Gekko Systems looks forward to working closely with Agnew's technical personnel in the coming months to further optimise the circuit.