



Equipment Selection and Equipment Costing

Henk Fourie

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Henk has thirty-six years international experience as a mining engineer in the industry, including strategic and life-of-mine planning, operational management and efficiency improvement, mine expansion projects and corporate governance functions in surface and underground mining in both coal and precious metals environments. He holds a B Eng mining engineering degree from the University of Pretoria, an MDP from Unisa, and is currently busy with studies towards a M Eng in Project Management. He is a registered Professional Engineer with ECSA and have both Metalliferous and Coal Mine Managers Certificates in South Africa.

His twenty-six years in surface mining has broadened his scope and provided knowledge and experience over almost all aspects of the mining engineering discipline. This has shaped his approach to identify value adding opportunities through:

- Strategic mine planning, trade-off studies and life of mine planning.
- Operational planning and scheduling, including mining equipment requirements.
- Identification and implementation of operational and managerial improvement opportunities in open pit mines.

Henk's knowledge and experience were gained throughout his career:

- As Head of Open Pit Mines for AngloGold Ashanti, he has overseen all mining technical aspects at seven open pit mines on the African continent, including Mali, Guinea, Ghana, Tanzania, DRC and Namibia. He acted as Competent Person for Mineral Reserves (SAMREC & JORC codes) as corporate representative for these mines.
- As Senior Principal Mining Engineer for Anglo American Platinum, his added role was to guide operational productivity and efficiency improvements at mines in South Africa and Zimbabwe.

- Leading and/or participating in the development of various viability studies at several mines on the African continent, covering:
 - strategic mine planning
 - mine expansions
 - surface / underground interface
 - contractor vs. owner mining trade-offs
 - feasibility studies
- Leading the pit designs and surface layouts at two new open pit mines in Mali – West Africa (Yatela and Morila).
- Developing a new underground colliery as the principal company representative on site (Klipspruit colliery near Newcastle in KZN).
- Responsible for delivering Life of Mine as well as operational short term plans as Planning Manager at two underground mechanised collieries (Springfield and Goedehoop).
- Managing the mining operations at two underground collieries (Klipspruit KZN and Springbok) and at New Vaal Colliery, an opencast mine, as well as Navachab, a hard rock open pit gold mine in Namibia.
- With relation to major mining contracts, he led the compilation of tender enquiry documents, evaluation and adjudication of tenders and assisted mining managers in the effective management of the contracts at various mines in Africa. Refer to his paper *“Making the correct decision: Critical considerations for contract mining”* presented at the Contract Mining Africa conference in 2004.
- Project managed the change-over from contractor to owner mining operations, including infrastructure expansions, at Geita gold mine in Tanzania as well as Navachab gold mine in Namibia.
- Identification and implementation of various business improvement opportunities at several open pit mines, the most significant is the improvements in mining effectiveness and cost efficiencies at the large Mogalakwena open pit platinum mine in South Africa. Refer to his paper *“Improvement in the overall efficiency of mining equipment: a case study”* presented at the MPES conference in 2015 and published in the March 2016 edition of the Journal of SAIMM.
- His operational experience up to GM level include hard rock open pit mining, surface coal mining, underground mechanised coal mining, and deep level gold mining - mostly with Anglo American group of companies.

He led and managed various expansion and improvement projects from inception to implementation. This often included management of multi-functional teams with incumbents from a range of African countries, international expats, outside consultants and JV partners.

Another passion is to transfer his knowledge to young mining engineers. He mentored and guided the development of numerous mining engineers. He continues to seek opportunities to grow engineers to become well rounded managers or technical



experts in mining through his co-development of a short course for the University of Pretoria, focussing on technical & operational aspects of surface mining.

After retirement from Anglo American in 2017 he started Lofty Mining (Pty) Ltd, a mining consulting company, focusing on open pit / surface mining.