

Jawad Kriel



Qualifications

B.Sc.(Eng.) – Chemical Engineering, University of Cape Town, 2001

Professional Status

Specialization

Hydraulic Modelling and Design

Process Design of Slurry Pumping Systems

Jawad worked for Sappi Fine Paper for 3 years before joining PCCE in June 2005.

Key areas of expertise include the following:

- Process Plant Optimisation specifically on a Soda Recovery Plant
- Managing continuous improvement projects
- Technical support to the production team
- Investigating new technologies
- Documentation of Plant (P&ID's and Process functional descriptions)

Notable Projects

Essakane Mine, Burkina Faso

A pre-feasibility study for the tailings pumping and return water system of the proposed Essakane Gold Mine in Burkina Faso. Conducted the hydraulic design and assisted with pump and pipeline specifications.

Karee Mine, South Africa

A pre-feasibility study for the upgrade of the tailings disposal system for the K4 concentrator at Karee Platinum Mine. Conducted the hydraulic design and pump and pipeline specifications.

SASA Head Feed Splitter, De Beers Marine, South Africa

Investigation into the use of a Compact Splitter for a new South African Sea Areas (SASA) vessel. Assisted with the lab work during the testing of various feed pipe configurations.

Namakwa Sands, South Africa

A trade off study of the various options available for the pumping and disposal of slimes at the West Mine Plant. Conducted the hydraulic and process design, pump and pipeline selection, costing and report.

Debmar Pacific Launder, De Beers Marine, South Africa

Test work conducted on a scale model launder based on the Debmar Pacific Mining Vessel. Responsible for setting up test rig, testing and report.

SASA Compact 4 Way Splitter (1 in 4), De Beers Marine, South Africa

Test work conducted on a 1:4 scale model of a 4-way splitter designed for the SASA Mining Vessel. Responsible for setting up test rig, testing and report.

Debmar Atlantic and Gariep! Launder, De Beers Marine, South Africa

Test work conducted on a scale model launder for Debmar Atlantic and Gariep! vessels. Installation of test rig, test program, client interface, reporting and project management.

Karee Mine, South Africa

A detailed design for the upgrade of the tailings and return water pumping system for the K4 concentrator at Karee Platinum Mine. Final specifications for the pumps and pipeline. Responsible for PFD's, P&ID's and HGL's. Assisted with costing by obtaining prices from suppliers for various equipment.

Nkomati Mine, South Africa

A front end design for a slurry pumping system as part of an expansion project. Conducted the design of the water system including specifying pumps and pipeline for the return water systems.

Khumani Mine

A front end design for a residue and return water pumping system for the BKM iron

ore mine. Conducted the design of the water system including specifying pumps and pipeline for the return water systems.

Coega Sand Bypass System, South Africa

Paterson & Cooke was appointed to commission and Sand Bypass System at the Port of Nqura, east of Port Elizabeth. Assisted with the commissioning procedures, testing start ups, shut downs and control loops. Compiled the reports for the various steps in the commissioning process.

Essakane Mine, Burkina Faso

A bankable feasibility study for the tailings and return water pumping system for the green field Essakane Gold Mine in Burkina Faso. Conducted the hydraulic design, specified the pumps and pipeline, conducted costing using sub-consultants VDDDB and report.

Darehzare Copper Mine, Iran

A basic design of two slurry pumping systems on the Darehzare Heap Bio Leaching project in Iran. Responsible for process documentation (PFD's and P&ID's) and investigating acid resistant equipment.

Black Mountain Mine, South Africa

Paterson & Cooke were requested to do on-site test work at Black Mountain Mine. The mine was experiencing high wear on pipelines on the backfill system. Responsible for the design of a orifice choke system to prevent slack flow in pipelines.

Konkola Mine

A detailed design of monitor water and tailings pumping system at Konkola Copper Mine. Responsible for hydraulic design, process documentation and detailing on the pipe layouts.

Letseng Mine, Lesotho

A feasibility study of a slimes pumping system for Letseng Diamond mine in Lesotho. Conducted the hydraulic modelling and design. Managed the costing done by VDDDB and responsible for the feasibility study report.

Ngezi Mine, Zimbabwe

DRA appointed Paterson & Cooke to do a design review of a tailings pumping system for the Ngezi Mine in Zimbabwe. Conducted an independent design and verified pump sizes and motor ratings done by DRA. Recommendations were made on P&ID's and control philosophy.

Kulumaziba Copper Tailings Reclamation, DRC

A feasibility study of a tailings pumping system for the Kulumaziba Copper Tailings Reclamation project near Kolwezi in the DRC. Responsible for hydraulic modelling and design.

Kamoto Mine, DRC

A front end design for a milled ore slurry pumping system from the Kamoto Concentrator Plant to the Lulu Plant in the DRC. Responsible for managing the test work program, hydraulic modelling and design, general project management.