



SAIMM
THE SOUTHERN AFRICAN INSTITUTE
OF MINING AND METALLURGY



In collaboration with the MMMA



**12–13 February
2020**

**Birchwood Hotel & OR
Tambo Conference
Centre, Johannesburg,
South Africa**

TAILING STORAGE CONFERENCE 2020

Investing in a Sustainable Future

Final Programme

Day 1 – Wednesday 12 February 2020

07:00–08:30 **Early Morning Refreshments and Registration**

08:30–08:40 **Welcome and Opening Address**

J. Baker, *Conference Chairperson and MMMA Representative, South Africa*

08:40–08:45 **Safety Briefing**

Venue Official

08:45–09:00 **SAIMM Presidential Opening Address**

M.I. Mithenjane, *SAIMM President and Exxaro Resources Ltd, South Africa*

Session: 1

Session Chairperson: J. Baker, *Consultant, South Africa*

09:00–09:40 **Keynote Address: Risk management for tailings storage facilities**

J. Wates, *Fraser Alexander, South Africa*

09:40–10:00 **A talk on the legal environment**

K. Cameron, *South Africa*

10:00–10:20 **GIS enabled, web-based TSF surveillance solution**

A. Louw, N. Mincione, and R. van der Colf, *SRK Consulting, South Africa*

10:20–10:40 **Monitoring the stability of tailings dam walls with ambient seismic noise**

T. de Wit, *Institute of Mine Seismology, South Africa*

10:40–11:00 **Mid-Morning Refreshments**

Session: 2

Session Chairperson: E. Matinde, *Mintek, South Africa*

11:00–11:20 **Updating current strategies for estimating a source term for a tailings storage facility**

N. van Zweel, *South Africa*

11:20–11:40 **Recent development in the processing of South African ore dumps**

S. Makamu, *Mintek, South Africa*

11:40–12:00 **3D seepage modelling in tailings storage facility analysis and design for low permeability lined basins**

W. Rouncivell, S. Imrie, G.C. Howell, and H.A.C. Meintjies, *SRK Consulting, South Africa*

12:00–12:20 **Satellite based full life cycle monitoring of tailing storage facilities**

N.C. Steenkamp, S.L. Goosen, and P.J. Bouwer, *Pinkmatter Solutions, South Africa*

12:20–13:20 **Lunch**

Session: 3

Session Chairperson: G. Pretorius, *Sibanye Stillwater, South Africa*

13:20–13:40 **Keynote Address: Current legal dispensation regarding retreatment of Tailings**

C. Stevens, *Werkmans Attorneys, South Africa*

13:40–14:00 **Tailings dam risk reduction using accurate pore pressure monitoring**

K.L. Morton, *KLM Consulting Services Pty Ltd, South Africa*

14:00–14:20 **An assessment of basic oxygen furnace slag dissolution for application in AMD dam remediation using waste products from the steel manufacturing and sugar industries**

T.S. Naidu, D. Chauhan, F. Xiong, C.M. Sheridan, and L.D. van Dyk, *University of the Witwatersrand and Centre in Water Research and Development, South Africa*

14:20–14:40 **Mid Afternoon Refreshments**

14:40–15:00 **A comparison of conventional and innovative methodologies for water recovery from a tailings storage facility in a dry environment**

J.J. van Rooyen, *SLR Consulting, South Africa*

15:00–15:20 **Cut-off systems for dykes and tailings dams in mining**

S. Schwank, *BAUER Maschinen GmbH, Germany*

15:20–15:40 **Feasibility of tailings retreatment to unlock value and create environmental sustainability of the Louis Moore tailings dump near Giyani, South Africa**

N.K. Singo and J.D. Kramers, *University of Johannesburg, South Africa*

15:40–16:00 **The management of legacy tailings storage facilities - a strategic approach through history, acquisition, transformation and closure**

K. Kariko, D. Johannes, T. Morake, and L. Tjatindi, *Dundee Precious Metals, South Africa*

16:00 **Close Day 1**

Day 2 – Thursday 13 February 2020

07:00–08:30 **Early Morning Refreshments and Registration**

08:30–08:35 **Welcome and Opening Address**

J. Baker, *Conference Chairperson and MMMA Representative*

08:35–08:40 **Safety Briefing**

Venue Official

Session: 4

Session Chairperson: M. Valenta, *Metallicon Process Consulting, South Africa*

08:40–09:20 **Keynote Address: Thinking differently about tailings**

G. Stuart, *Sibanye Stillwater, South Africa*

09:20–09:40 **In Situ and laboratory testing approach to establish TSF vertical expansion requirements**

R. van der Westhuizen, *Golder, South Africa*

09:40–10:00 **Rare earth recovery from acid mine drainage tailings dam**

N. Moyo, C. Sheridan, and J. Smith, *University of the Witwatersrand, South Africa*

10:00–10:20 **Displacement monitoring with InSAR: an operational approach for tailings dam safety assessment**

A. Jonson¹ and D. Colombo², ¹*Optron, South Africa* and ²*TRE ALTAMIRA, Italy*

10:20–10:40 **Considerations in the formulation of credible failure scenarios for TSF dam break analyses**

S. Maharaj, *Golder*

10:40–11:00 **Mid-morning refreshments**

11:00–11:10 **DM Minerals Group**

11:10–11:30 **WIN WIN: A women-driven self-help scheme to remove mine dump residue**

K.L. Morton, *KLM Consulting Services Pty Ltd, South Africa*

11:30–11:50 **Design of an HDPE-lined platinum tailings facility in South Africa**

L.H. Spies, *SRK Consulting, South Africa*

11:50–12:10 **Risk Management from the operator's perspective**

R. Cooper, *SLR Consulting, South Africa*

12:10–12:30 **ICMM proposals and SAICE views**

S. Gover, *Golder Associates Africa (Pty) Ltd, South Africa*

12:30–12:50 **Should upstream tailings dams be banned?**

A. Strauss, *Knight Piésold (Pty) Ltd, South Africa*

12:50–13:50 **Lunch**

13:50–14:10 **Northern tailings facility slump, Video Presentation**

14:10–15:00 **Panel Discussion: Upstreaming or not upstreaming**

J. Wates, *Fraser Alexander, South Africa*

15:00 **Conference Close**