



LARGE SCALE TESTING

LINKING RESEARCH AND INDUSTRY

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Keynote Speaker

TESTING THE UNTESTABLE? PRACTICAL LESSONS FROM LARGE-SCALE GEOTECHNICAL TESTING OF COARSE BLASTED MINE WASTE

Geotechnical laboratory testing is traditionally built around soils and rock materials that fit conveniently into standard apparatus. In the mining industry, however, engineers are often asked to characterise materials that are anything but convenient: very coarse, blasted mine waste with particle sizes measured in hundreds of millimetres, strong heterogeneity, and a tendency to defy basic assumptions.

This presentation reflects on a practical journey through consultancy work in the mining sector, focusing on how coarse blasted mine waste can be sampled, handled, and tested using large-scale geotechnical equipment. From the realities of field sampling and material selection, through scaling decisions and specimen preparation, to the determination of shear strength parameters, the talk emphasises what actually works in practice—and what often does not.

This lecture highlights the compromises engineers routinely make when testing very coarse materials, the value of large-scale shear testing, and the importance of engineering judgement when interpreting results that are inevitably influenced by scale effects and material variability.

ABSTRACTS SUBMISSION

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