

# Worried About Well Stability?



MercatEnergy

&

RockMohr Ltd

Your well in stable hands

- Are you about to drill a well at increasing deviation or looking to reduce your mud weight?
- Are you drilling into depleted reservoirs?
- Are you concerned about sand production: now or in the future?

**Mercat Energy Ltd & RockMohr Ltd** have a collaborative working relationship, reuniting a team that have worked together for over 20 years. Bringing over 100 man years of relevant experience to find pragmatic and workable solutions to your problems

**Chris Reed** founded Mercat in 2017, Chris brings over 10 years experience in Geomechanics, specialising in PPGF, Wellbore Stability and Sand Failure Prediction

**Colin McPhee** joined Mercat in 2018, bringing 40 years of experience in Geomechanics, Rock Mechanics, Sand Management, Formation Damage and Core Petrophysics. Colin was Global Head of Rock Properties with Senergy and is the co-author of "Core Analysis: Best Practice" textbook

**Dave Reed** joined Mercat in 2018, bringing more than 35 years of Well Operations, Project Management and Field Development experience

**Lynne Harrower** founded RockMohr in 2018 and has 25 years experience in Geomechanics, Formation Damage, Sand Management and is an industry recognised geomechanics trainer. Lynne was previously Geomechanics and Production Optimisation Delivery Manager at Senergy

## What do we do?

### Geomechanics

Pore Pressure Prediction  
Fracture Gradient Analysis  
Wellbore Stability  
Sand Failure Prediction  
Sand Management  
Compaction & Subsidence  
Lab Test Management & Interpretation  
Operational Support / Real Time

### Well Engineering

Well Engineering Review  
Well Design Review  
Well Feasibility Studies & Reviews  
Drilling Technology  
Drilling Management  
Asset Acquisitions Advisory  
Management Systems  
Decommissioning (wells)

We also specialise in Laboratory Audit (Geomechanics and Core Analysis)  
Training and Independent Peer Review

# Where do we get involved?

**Pre-Drill / Well Design:** To determine the optimum mud weight window using offset well data (and seismic data where appropriate) and conducting PPFG/WBS analysis - review planned well trajectories, mud weights, casing seat selection/architecture and proposed drilling operations and practice. Assess associated well construction related risks

## Drilling Engineers

**Whilst Drilling:** Provide 'relevant time' monitoring of PPFG/WBS analysis - this could be reviewing the prediction at each section TD and providing an update for the next section, or monitoring any known trouble spots

**Post-Drill:** Review the prediction and geomechanical model vs actual well data - refine model as appropriate for future well planning

**Well Completion Selection / Well Design:** We assess the risk of sand failure over projected life of well conditions and evaluate solutions to mitigate sand risk, such as downhole sand control and alternative strategies - drawdown and BHFP control, completion style, well and preformation re-orientation, selective perforation, etc

## Completion Engineers

## Production Engineers

**Production:** Sand production can occur unexpectedly after production startup, often triggered by depletion or onset of water production. We can review the suitability of initial sand failure predictions and recalibrate to the observed field history, to optimise future sand free production

Mercat and RockMohr have a vast and varied project experience across the globe. This is highlighted in red below



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