Developing a synthetic grid block model for coal seams in the Surat Basin

INTRODUCTION

The CSG industry in the Surat Basin will benefit from numerical modelling simulations that take into account more realistic coal characterization. The subbituminous coal is texturally different. The coals are jointed and cleats are poorly developed at low rank, except for some incipient cleats in the few bright bands. The fracture toughness is very high, perhaps double, relative to more brittle bituminous (high rank) coals. However, strength data suggests that the low rank coals are weak. The juxtaposition of thin tough but jointed coal lithotypes (centimetre to decimetre scale) against greasy claystones layers makes the laboratory testing of the strength of intact rock a difficult task.



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steel_C Steel_C 6G-9 B 6G-3 B 6G-3 6G-27 6G-33 6G-2 6G-12 F 6G-12 F 6G-12 F 6G-13 I 6G-2 I



Numerical evaluation of the influence of natural fractures (cleats and/or joints) using the synthetic grid block model for the Surat Basin.

comparison with previous models, well tests and production profiles conducted for the Surat Basin.

6. TRUEMAN, R., and MEDHURST, T.P., 1994—The influence of scale effects on the strength and deformability of coal. IV CSMR/ Integral Approach to Applied Rock Mechanics, ed. M. Van Sint Jan, 1, 103-114. Santiago: Sociedad Chilena de Geotecnia.