



POSTER PRESENTATION

Understanding Malaysian Carbonates – the Complexities of Rock Typing

Melissa Johansson¹

¹*Geode-Energy, UK*

mjohansson@geode-energy.com

Carbonates form major oil and gas plays around the world, however their complex deposition, texture and pore network contribute to the difficulties of modelling their heterogeneity. Therefore, carbonates present us with some of the greatest challenges and a number of fundamental geological parameters are key to developing a robust facies scheme. Understanding the carbonate facies and their connection to porosity and permeability are fundamental to reservoir characterization. Often the addition of bioturbation and vugs can alter the 'typical' poro-perm characteristics of a facies, with vugs providing vast porosity sometimes with little to no permeability. Superimposed on the complex facies schemes are fractures, which can also contribute significantly to production, enhancing permeability through the fracture density, orientation, and aperture, but can also increase the risk of water cut. In addition, Asian carbonates commonly are mounded with subsurface karst networks which boost production, but cause major drilling hazards, limiting data acquisition.