

Defining Aspect Ratios in Mudstone Reservoirs and Their Relationship to Recovery Efficiencies

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It has been well established that the relationship between pore throat and pore body diameter (aspect ratio) is a significant element controlling recovery efficiency. The integration of pore diameters derived from image analysis and pore throat diameters determined by high pressure mercury injection can provide insight into the expected recovery efficiency in non-conventional mudstone reservoirs. When combined with special high magnification imaging of the pore systems, recognition of various types of pore structures most conducive to hydrocarbon production can be identified.

This presentation demonstrates methodology and results of this analytical approach in various mudstone reservoirs currently under development.