

PREVIEWS

Turning digital rock models into rock proxies	<i>Three-dimensional printing can replicate complicated designs and has the potential to support diverse investigations of properties and processes over multiple scales. Current limitations include the precision achievable for internal geometries as well as a lack of suitable materials for rock replication.</i>	1
A new perspective for the explorationist	<i>This study demonstrates that sedimentary systems and deformational history determine the distribution of productive oil and gas fields in the western slope of the Songliao basin, China, and should aid petroleum exploration strategies for comparable basins in other localities.</i>	27
Is quartz is a porosity-occluding cement?	<i>Oil emplacement in the Upper Jurassic sandstones, Norwegian North Sea, appears to have inhibited quartz cementation at high oil saturations and can be viewed as a significant control on reservoir quality. This study could improve prediction of porosity and permeability distribution.</i>	49
Understanding deep diagenesis in the Tarim	<i>Diagenesis, including reflux dolomitization, breccia and fracture formation due to dissolution from meteoric water, and thermochemical sulfate reduction, has significantly modified the depositional mineralogy and pore systems of the lower to middle Cambrian in the Tarim Basin.</i>	77
New geomechanical restoration methods	<i>This paper demonstrates the ability to accurately predict strain distributions with geomechanical restorations where structure has played a significant role in the development of reservoir permeability in the Thirtyone reservoir of the Permian Basin, West Texas.</i>	103
A 1-m dolomite is important	<i>This paper characterizes a 1-m thick, petroliferous, stratiform dolomite, offshore Abu Dhabi, United Arab Emirates. It is comprised of three types of dolomite, and near-surface early dolomitization was driven by the diffusion of Mg^{2+} from the seawater to the sediments just below the seafloor.</i>	129
A new assessment methodology	<i>This study developed a new methodology for evaluating low rank coalbed methane resource potential and determining favorable areas in the southern Junggar Basin, China. The results provide a solid basis for realizing deep exploration and large-scale exploitation.</i>	153

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