

PREVIEWS

Introduction	<i>The introduction to this special issue on gas hydrates in Green Canyon Block 955, deep-water Gulf of Mexico includes a history of projects and an overview of the papers in the volume.</i>	<i>1843</i>
A Gulf of Mexico core examined	<i>A coarse-grained hydrate reservoir in Green Canyon Block 955 in the deep-water Gulf of Mexico was pressure cored during The University of Texas-Gulf of Mexico 2-1 (UT-GOM2-1) Hydrate Pressure Coring Expedition. This paper summarizes findings to date. Results will help future simulation models determine how these reservoirs form.</i>	<i>1847</i>
The value of pressure coring	<i>Pressure coring is the only available technology for recovering intact cores from sediment that is normally disturbed by gas expansion, dissolution, or dissociation. Samples that preserve sediment fabric and gas hydrate saturation are key for understanding reservoir properties and geomechanical behavior of gas hydrate reservoirs.</i>	<i>1877</i>
The salt diapir effect	<i>A salt diapir can produce a strong localized alteration of the temperature and pressure regime and influence the stability of gas hydrates. The authors propose a similar mechanism for other reservoirs driven by salt-controlled gas hydrate formation and dissociation elsewhere in the world.</i>	<i>1903</i>
Pleistocene channel-levee system	<i>This paper shows that the presence and distribution of a methane hydrate-bearing reservoir is strongly influenced by the channel evolution history involving early-stage sediment bypass within the channel accompanied by growth and failure of levees and late-stage deposition.</i>	<i>1921</i>
Levee-channel turbidite reservoirs	<i>The sedimentology and stratigraphy of an unlithified deep-water channel-levee hydrocarbon reservoir, deep-water Gulf of Mexico, is described in this paper. This study shows the lithologic architecture of levee-channel turbidite reservoirs and provides insight into lithology controls on hydrate distribution and concentration.</i>	<i>1945</i>
Gas hydrates from pressure core degassing	<i>Quantitative degassing experiments determine the influence of lithology on hydrate saturation, deep-water Gulf of Mexico. Coarse-grained sediments contain very high hydrate saturation of nearly pure methane in sediments with pore waters of near-seawater salinity prior to dissociation.</i>	<i>1971</i>
Reconstituted sediments and intrinsic permeability	<i>Sediment from the two characteristic lithofacies present in the Green Canyon Block 955 hydrate reservoir were reconstituted to the approximate state they were at in the subsurface. Sandy silts reconstituted to the in situ porosity have a permeability of 11.8 md while clayey silts have a much lower intrinsic permeability.</i>	<i>1997</i>

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