

3D seismic interpretation of shallow under-sea-floor layers in the northern part of the Kumano basin

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Aiming commercialization of methane hydrate production to be examined as future energy resources, the Research Consortium for Methane Hydrate Resources in Japan (MH21) has been executing the geological and geophysical survey around the eastern Nankai Trough since 2001.

It is very important to delineate the distribution of porous sediments which can reserve a large amount of gas-hydrates in the methane hydrates exploration as same as in the conventional petroleum exploration. In offshore deep sea, it generally means that the delineation of distributions of turbidite sand bodies is required. 3D seismic reflection data can be powerful tool to image and classify various geological sedimentation patterns including channels and fans. The detailed 3D seismic interpretation was applied to shallow sediments in the northern part of the Kumano basin, one portion of 3D seismic survey area around the eastern Nankai Trough.

More than 4 characteristic geological cycles, of which interval is almost regular, were recognized in shallow sediments and they may suggest that geological cycles having the similar deposition environment seemed to be repeated at least 4 times. At the meeting, we will show the detail of interpretation result.