



Journal of  
the Japanese Association for Petroleum Technology

The Japanese Association for Petroleum Technology

Available Issues | Japanese >> Publisher Site

Author:  ADVANCED Volume Page

Keyword:



[TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

ONLINE ISSN : 1881-4131

PRINT ISSN : 0370-9868

## Journal of the Japanese Association for Petroleum Technology

Vol. 73 (2008) , No. 1 pp.38-46

[\[PDF \(15954K\)\]](#) [\[References\]](#)

### Exploration case study of sandstone pinch-out stratigraphic traps offshore Kitakanbara

—Challenge to discovery of “the second Iwafuneoki oil and gas field”—

[Yuichi Saito](#)<sup>1)</sup>, [Tetsuya Yamamoto](#)<sup>1)</sup>, [Terumasa Yamane](#)<sup>1)</sup>, [Shunji Moriya](#)<sup>1)</sup>, [Mizue Nishimura](#)<sup>2)</sup> and [Osamu Takano](#)<sup>2)</sup>

1) Japan Petroleum Exploration Co., Ltd.

2) JAPEx Research Center, Japan Petroleum Exploration Co., Ltd.

(Received November 5, 2007)

(Accepted January 11, 2008)

**Abstract:** Integrated geological and geophysical study was carried out using newly acquired 3D seismic data in order to evaluate further exploration potential for sandstone pinch-out traps, offshore Kitakanbara, Niigata, Japan. The 3D seismic PSTM negative amplitude was useful for predicting the sandstone distribution in spite of the dominant frequencies as low as 10-12Hz. Depositional systems of the turbidite successions were estimated in sequence stratigraphic framework by integrating thickness, seismic amplitude and seismic facies maps which were calibrated with depositional facies associations defined in the wells. A deductive hydrocarbon migration simulation was then carried out for the purpose of migration and seal risk assessment. The study highlighted hydrocarbon accumulation to sandstone stratigraphic traps in downdip portion of structural highs. During a series of study, Stratimagic and MPath applications played an important role as new technology tools for seismic facies mapping and hydrocarbon migration evaluation, respectively, especially in combination with 3D seismic data.

**Key words:** [sandstone pinch-out](#), [stratigraphic trap](#), [offshore Kitakanbara](#), [Niigata](#), [3D seismic](#), [seismic facies](#), [Stratimagic](#), [sedimentological and sequence stratigraphic interpretation](#), [turbidite](#), [MPath](#), [hydrocarbon migration modeling](#), [Iwafuneoki field](#), [Agaoki field](#)

To cite this article:

Yuichi Saito, Tetsuya Yamamoto, Terumasa Yamane, Shunji Moriya, Mizue Nishimura and Osamu Takano 2008: Exploration case study of sandstone pinch-out stratigraphic traps offshore Kitakanbara : —Challenge to discovery of “the second Iwafuneoki oil and gas field”— , J. JAPANESE. ASSOC. PETROL. TECHNOL., **73**: 1, 38-46 .

---

doi:10.3720/japt.73.38

JOI JST.JSTAGE/japt/73.38

Copyright (c) 2008 The Japanese Association for Petroleum Technology

---



---

[Japan Science and Technology Information Aggregator, Electronic](#)

