SPWLA Japan Chapter News Letter

Vol.4 No.2, March 1998

The Fourth Well Logging Symposium of Japan

Following the successful symposium of last year, we hold "The Fourth Well Logging Symposium of Japan" in same venue and same season.

The symposium will be held at JNOC-TRC, Chiba on September 24-25, 1998. All persons involved with well logging, formation evaluation and borehole geophysics are invited to present their activities and exchange information.

Abstract is due no later than May 15, 1998. Please refer to "Call for Abstracts" attached for detail information. Your contribution is expected. Let's submit Abstract!

[Organization of Symposium Committee]

The symposium committee was organized on January 26 as shown as follows;

Tono, Satoshi Chairman

Okitsu, Fumio Vice-Chairman / sponsorship

Miyairi, Makoto Program Koide, Kazuo Registration

Toda, Toru Publicity / Information

Nakamizu, Masaru Treasurer / Convention facility

Sato, Makoto Award

Guindy, Adel International Coordinator

Arihara, Norio Reviewer
Niitsuma, Hiroaki Reviewer
Kato, Koji Banquet
Oka, Masashi Proceedings

Hyodo, Masami Gift / Accommodation

Ohtomo, Hideo Reviewer

Invitation to the 21st Chapter Meeting

We would like to invite you to attend the forthcoming Chapter Meeting, which will be held as follows.

<u>Venue</u>: Schlumberger K.K.

2-2-1 Fuchinobe, Sagamihara-shi,

Kanagawa-ken 229 Tel (0427) 59-2115/2111

(See the attached map. Bus service from Fuchinobe Station, Yokohama JR line, will be available before and after the

meeting)

Date : Monday, March 30, 1998

Program:

14:45 Bus service from Fuchinobe JR Station

15:00 Chapter Meeting- Presentations on:

- Fracture Evaluation from Stoneley Inversion

- Borehole Acoustic Refelectivity for Single Well Imaging- A highresolution description of geological structure.

(See details below)

16:30 Overview of SKK and facility tour

17:30 Snacks buffet

18:40/19:10 Bus service to Fuchinobe JR Station

Technical Presentations:

* Fracture Evaluation from Stoneley Inversion

Authors: Takeshi Endo*, Kazuhiko Tezuka**, Takeshi Fukushima*, Alain Brie*, Hitoshi Mikada*, and Makoto Miyairi**
(*: Schlumberger K.K., **: Japex Research Center)

Abstract:

In hard-rock reservoirs, production is often mostly done through fractures. Therefore, the knowledge of the fracture locations and of their characteristics is of primary importance for field development and well completion design. Out of the many measurements that provide information on fractures, the Stoneley wave has a unique advantage that it is sensitive to major open fractures, the ones from which most of the production comes from, almost irrespective of the dipping angle. The main limitation is the sensitivity to borehole irregularities and lithology

changes which, up to now, prevented a quantitative estimation of fracture parameters.

We will present an improved methodology to obtain a quantitative evaluation of the fracture parameters and of the formation producibility from the borehole Stoneley. The evaluation is made in two steps. The first step consists in the analysis of the Stoneley wave to extract the transmission and reflection coefficients. This is done in a single integrated process to ensure compatibility of the up- and down-going reflection coefficients with the transmission coefficient. This process includes an improved parametric wave separation algorithm developed to separate the transmitted and reflected wave fields without altering their amplitudes.

In a second step the fracture aperture distribution is inverted from the transmission and reflection coefficients. A multi-layer model is used that includes borehole size changes and lithology variations. The cumulative fracture width is obtained for every six-inches depth interval. Finally the fracture conductivity is estimated from the cumulative fracture width.

An example of the application of this methodology to the evaluation of a fractured formation in Japan is presented.

*Borehole Acoustic Refelectivity for Single Well Imaging- A high-resolution description of geological structure.

Authors: Hitoshi Mikada, Shin'ichi Watanabe, Masaaki Ishida, Takeshi Endo, Alain Brie, Schlumberger K.K.

Abstract:

Sonic waveforms have better resolution than seismic in wave theory. The utilization of sonic waveforms has been proposed for fine description of reservoirs. A new application, called BARS (Borehole Acoustic Reflection Survey), has recently entered field testing. It uses the reflected or scattered response of an invisible structure at some distance from the well, by recording full waveforms in a scaled configuration similar to surface seismic reflection surveys. Methodologies in this type of surveys, analogous to those established in seismic exploration, have a potential to image fine structure which may not be well resolved in surface seismic processing. This feature would provide multiresolutional image of geology a well, i.e., macroscopic in seismic and microscopic in sonics.

Several surveys have recently been conducted to target: i) thin bed imaging, ii) fracture imaging and iii) cap rock imaging. The results demonstrate the advantage of such surveys in the description of geological structures. The resolution and depth of investigation of the method could be controlled by the frequency contents of source signals. We will demonstrate processing results from field tests which show that the present technique has enough capabilities to meet the above objectives.

['94-'95 Annual schedule of Chapter Meetings]

May 23, 1994 Japan National Oil Corporation July 25, 1994 Japan Petroleum Exploration Co.,Ltd

September 27, 1994 Japan Oil Engineering Co., Ltd.

November 29, 1994 Technical Research Center, Teikoku Oil Co., Ltd

January 23, 1995 Indonesia Petroleum, Inc. March 13, 1995 Waseda University

May 29, 1995 Japan Oil Development Co., Ltd

September 21-22, 1995 Technology Research Center, Japan National Oil Corporation

['95-'96 Annual schedule of Chapter meeting]

November 27, 1995 Idemitsu Oil Development Co.,Ltd January 29, 1996 Geothermal Energy R& D Co.,Ltd

March 26, 1996 Arabian Oil Co.,Ltd

May 27, 1996 Japan Petroleum Exploration Co., Ltd

September 26-27, 1996 Technology Research Center, Japan National Oil Corporation

['96-'97 Annual schedule of Chapter meetings]

November 25, 1996 Technical Research Center, Teikoku Oil Co.,Ltd

January 27, 1997 Indonesia Petroleum, Inc.

March 26, 1997 Waseda University

May 26, 1997 Japan Oil Development Co., Ltd.

September 24-25, 1997 Technology Research Center, Japan National Oil Corporation

['97-'98 Annual schedule of Chapter meetings]

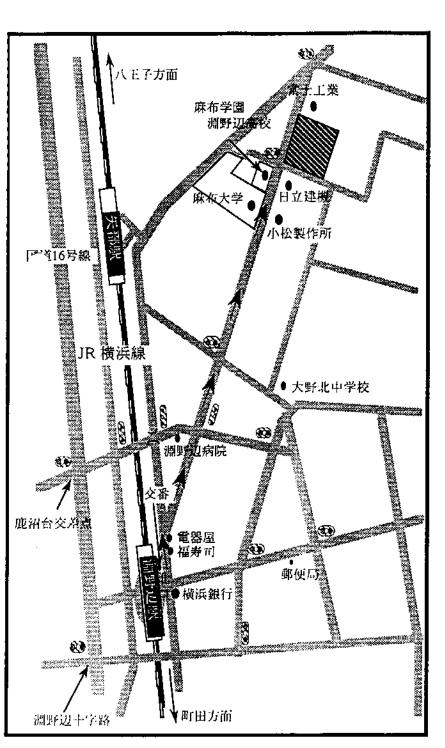
November 25, 1997 Idemitsu Oil Development Co.,Ltd January 26, 1998 Idemitsu Oil Development Co.,Ltd

March 30, 1998 Schlumberger K.K.

May 25, 1998 Japan Petroleum Exploration Co.,Ltd

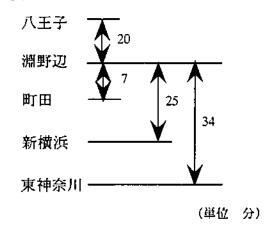
September 24-25, 1998 Technology Research Center, Japan National Oil Corporation

来社の御案内



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なお、横浜線主要駅から淵野辺駅までの 所要時間は、以下の通りです。



淵野辺駅から徒歩約12分です。

The Fourth Well Logging Symposium of Japan TRC-JNOC, Chiba September 24-25, 1998 CALL FOR ABSTRACTS

Organized Cosponsored Supported by Japan Chapter of Society of Professional Well Log Analysts by Technology Research Center, Japan National Oil Corporation

by Japanese Association for Petroleum Technology Society of Exploration Geophysicist of Japan Geothermal Research Society of Japan

Society of Petroleum Engineers, Japan Section Subsurface Instrumentation Division of MMIJ

The Fourth Well Logging Symposium of Japan will be held at the Technology Research Center-Japan National Oil Corporation, Chiba on September 24-25, 1998. All persons involved with the Oil, Gas, Geothermal Energy and Geoengineering industry and research institutes are invited to submit abstracts of original papers for presentation at the symposium and publication in its proceedings

NOTE TO AUTHORS: Complete a separate form in typescript for each abstract submitted. Type abstract on a single sheet of A4 paper. It should contain 200 to 400 words in English. Avoid the use of equations, trademarks, literature references, and supplementary text.

Notification of acceptance will be made in June 1998. If accepted, a complete manuscript or extended abstract in English will be required for the proceedings by July 31, 1998.

ABSTRACT IS DUE NO LATER THAN MAY 15, 1998

Submit abstracts to: Makoto Miyairi

JAPEX Research Center

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Title of Paper:				
Corresponding Au	hor:	<u>.</u>		
Company:				
	Fax:			
Has the paper been presented before? Yes				
Where?	when?		How? Oral	Published
Subject classified a	s (check):			
Acoustic/borehole seismic Borehole imaging Cased-hole/production logging General formation evaluation techniques Lab measurement of rock properties Fractured reservoirs Geological applications Geothermal applications			Electrical/electromagnetic logging Nuclear logging Measurements while drilling Case histories Petrophysical properties/relationships Computer applications Geoengineering applications Other area of formation evaluation	