The 22nd Formation Evaluation Symposium of Japan

Special Session: Evolving E&P technologies - 80 years since the first well log in Japan

PROGRAM

JOGMEC-TRC, Chiba
September 29 - 30, 2016

Sponsored by Japan Formation Evaluation Society – A Chapter of SPWLA
Cosponsored by Technology & Research Center, Japan Oil, Gas and Metals National Corporation
Supported by Japanese Association for Petroleum Technology
Society of Exploration Geophysicist of Japan
Geothermal Research Society of Japan
Society of Petroleum Engineers, Japan Section

http://www.jfes-spwla.org/index.htm

* This program is subject to change due to the preparation of the symposium.
The 22nd Formation Evaluation Symposium of Japan
September 29 - 30, 2016, JOGMEC-TRC, Chiba

Sponsor

Gold

JAPEX  INPEX

MOECO

JX Nippon Oil & Gas Exploration

HALLIBURTON

Schlumberger

Silver

GERD  CTC

Mitsubishi Corporation Exploration

GSC  JGI  FUGRO
# Program

## Thursday, September 29

<table>
<thead>
<tr>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration</td>
<td>Entrance Hall</td>
</tr>
<tr>
<td>Slide Center</td>
<td>Entrance Hall</td>
</tr>
<tr>
<td>Opening</td>
<td>Lecture Hall</td>
</tr>
<tr>
<td>Invited Talk</td>
<td>Lecture Hall</td>
</tr>
<tr>
<td>Special Session: Evolving E&amp;P technologies 1</td>
<td>Lecture Hall</td>
</tr>
<tr>
<td>Lunch</td>
<td>Cafeteria</td>
</tr>
<tr>
<td>Keynote</td>
<td>Lecture Hall</td>
</tr>
<tr>
<td>Special Session: Evolving E&amp;P technologies 2</td>
<td>Lecture Hall</td>
</tr>
<tr>
<td>Coffee Break</td>
<td>Lobby</td>
</tr>
<tr>
<td>Formation Evaluation 1</td>
<td>Lecture Hall</td>
</tr>
<tr>
<td>Coffee Break</td>
<td>Lobby</td>
</tr>
<tr>
<td>Scientific Drilling</td>
<td>Lecture Hall</td>
</tr>
<tr>
<td>General meeting</td>
<td>Lecture Hall</td>
</tr>
<tr>
<td>Icebreaker</td>
<td>Cafeteria</td>
</tr>
</tbody>
</table>

## Friday, September 30

<table>
<thead>
<tr>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slide Center</td>
<td>Entrance Hall</td>
</tr>
<tr>
<td>Reservoir Characterization</td>
<td>Lecture Hall</td>
</tr>
<tr>
<td>Coffee Break</td>
<td>Lobby</td>
</tr>
<tr>
<td>Formation Evaluation 2</td>
<td>Lecture Hall</td>
</tr>
<tr>
<td>Lunch</td>
<td>Cafeteria</td>
</tr>
<tr>
<td>Geophysics / Geomechanics</td>
<td>Lecture Hall</td>
</tr>
<tr>
<td>Coffee Break</td>
<td>Lobby</td>
</tr>
<tr>
<td>Case Study</td>
<td>Lecture Hall</td>
</tr>
<tr>
<td>Closing</td>
<td>Lecture Hall</td>
</tr>
</tbody>
</table>
Technical Session: Thursday, September 29

Opening

Chairperson: Tatsuki Endo (Schlumberger)

9:25 Opening Address: Professor Masanori Kurihara (President of JFES, Waseda University)

Invited Talk: Evolving E&P technologies

Chairperson: Tetsuya Tamagawa (JAPEX)

9:35 Invited Talk 1: HISTORICAL OVERVIEW ON DEVELOPMENTS OF WELL LOGGING AND AE FRACTURE MAPPING TECHNOLOGIES IN JAPEX:
Dr. Makoto Miyairi (Former JFES President)

10:05 Invited Talk 2: THE ROLES OF EXPLORATION AND BOREHOLE TECHNOLOGIES IN GEOTHERMAL POWER GENERATION:
Dr. Haruya Nakata (GERD President)

10:35-10:50 Coffee Break

10:50 Invited Talk 3: DATA-DRIVEN SCIENCE: CHALLENGES OF SCIENTIFIC DRILLING:
Dr. Yasuhiro Yamada (ODS Director, JAMSTEC)

Special Session: Evolving E&P technologies I

Chairperson: Hideo Komatsu (INPEX)

11:20 A EVOLUTION OF WIRELINE TELEMETRY AND ITS IMPACT ON FORMATION EVALUATION: Maduranga Liyanage, John Richard Tulett, Tatsuki Endo, Atsushi Saito, Hiroaki Yamamoto, Ryo Imai (Schlumberger)

11:40 B KINETIC MODELING OF THE IN-SITU COMBUSTION PROCESS FOR OIL SANDS AND HEAVY OIL PRODUCTIONS: Kyoichi Takatsu, Kyuro Sasaki, Yuichi Sugai (Kyushu University)

12:00-13:15 Lunch

Keynote

Chairperson: Tatsuki Endo (Schlumberger)

13:15 Keynote Address: Dr. Luis F Quintero, SPWLA President (Halliburton)
Special Session: Evolving E&P technologies II

Chairperson: Hideo Komatsu (INPEX)

13:55 C EXPERIMENTS OF MICRO-BUBBLE CO2 EOR USING BEREA SANDSTONE CORE SAMPLES: Hiroko Hiramoto, Kei Kukuu, Masanori Kurihara (Waseda University), Takashi Akai, Yoshihiro Tsuchiya, Ko Sato, Yasutomo Takakuwa (JOGMEC), Naoto Araki, Seiji Shirai (JX Nippon Oil & Gas Exploration Corporation)

14:15 D ROLE OF THE STRESS STATE AT INITIATION POINTS FOR HYDRAULIC FRACTURE PROPAGATION: A CASE FROM EAGLE FORD SHALE: Mamoru Nakata, Tetsuya Tamagawa (JAPEX)

14:35-14:55 Coffee Break

Formation Evaluation I

Chairperson: Yoshinori Sanada (JAMSTEC)

14:55 E DEVELOPMENT OF OPTIMIZATION PROGRAM FOR ESTIMATION OF THREE-PHASE RELATIVE PERMEABILITY FROM UNSTEADY-STATE COREFLOOD EXPERIMENTS: Hideto Utsunomiya, Masanori Kurihara (Waseda University), Hiroki Taniguchi (JOGMEC)

15:15 F RELATIVE PERMEABILITY CURVES FOR TWO-PHASE FLOWS THROUGH HETEROGENEOUS VUGGY CARBONATES: Hikaru Kusanagi, Noriaki Watanabe (Tohoku University), Takashi Shimazu, Masahiko Yagi (JAPEX)

15:35 G WELL INTEGRITY EVALUATION WITH LWD – QUANTITATIVE FULL RANGE CEMENT BOND INDEX: Yan Wei Feng (China National Offshore Oil Company), Nicholas Robinson, Wataru Izuhara, Hiroaki Yamamoto, Shim Yen Han (Schlumberger), Yu Guan Cheng, Mu Zhe Lin, Shi Wen Zhuan, Jiao Ming (China National Offshore Oil Company)

15:55-16:15 Coffee Break

Scientific Drilling

Chairperson: Takayuki Kanno (Schlumberger)

16:15 H ELASTIC PROPERTIES OF FAULT CORE SAMPLES USING DIGITAL ROCK PHYSICS: INSIGHT INTO SEISMOGENIC FAULT CHARACTERIZATION: Chandoeun ENG, Tatsunori Ikeda, Takeshi Tsuji (Kyushu University)

16:35 I EXPLORATION ON DEEP WATER HYDROTHERMAL SEDIMENTS WITH LOGGING WHILE DRILLING AT OKINAWA TROUGH (SIP-II): Yoshinori Sanada, Saneatsu Saito, Yohei Hamada, Yukari Kido, Hidenori Kumagai, Tetsuo Nozaki (JAMSTEC), Junichiro Ishibashi (Kyushu University), Lena Maeda (JAMSTEC), CK16-01 Cruise member

17:00-17:30 General Meeting

17:30-19:00 Icebreaker
Technical Session: Friday, September 30

Reservoir Characterization

Chairperson: Tadahiro Nagano (Schlumberger)

9:20 J QUANTITATIVE ANALYSIS OF ABSOLUTE PERMEABILITY AND POROSITY IN CARBONATE ROCKS USING DIGITAL ROCK PHYSICS: Khurshed Rahimov, Ali M. AlSumaiti, Mohamed Soufiane Jouini (The Petroleum Institute, Abu Dhabi, UAE)

9:40 K ADVANCED ELECTROFACIES MODELLING AND PERMEABILITY PREDICTION: A CASE STUDY INCORPORATING MULTI-RESOLUTION CORE, NMR AND IMAGE LOG TEXTURAL INFORMATION INTO A CARBONATE FACIES STUDY: Diego Vasquez, Darling Criollo (Paradigm), Zureisy Marin (PDVSA-INTEVEP)

10:00 L IMPACT OF LOW SALINE FORMATION WATER ON THE SWEPT LEG'S RESERVOIR PROPERTY AT THE EOR TARGET SAND: Hamed Hassani, Yousef Sheikhi Garjan (PETRONAS)

10:20 M INVESTIGATION ON LOW SALINITY WATERFLOODING THROUGH CORE FLOODING EXPERIMENTS AND NUMERICAL SIMULATION: Tomoaki Ishiwata, Masanori Kurihara (Waseda University), Hiroki Taniguchi, Yoshihiro Tsuchiya, Jun Watanabe (JOGMEC), Kentaro Matsumoto (INPEX)

10:40-11:00 Coffee Break

Formation Evaluation II

Chairperson: Takeo Aoyama (JX Nippon Oil & Gas Exploration)

11:00 O POSSIBLE APPLICATIONS OF A MULTI-LAYERED SEISMIC REFRACTION SOLUTION IN CORRECTION AND ANALYSIS OF SONIC LOG DATA: Pham Huy Giao, Raweewan Maneejan, Doan Huy Hien (Asian Institute of Technology)

11:20 P UNDERSTANDING LWD QUADRUPOLE SHEAR IN ANISOTROPIC ENVIRONMENTS: Matthew Blyth, Henri-Pierre Valero (Schlumberger)

11:40 Q DETERMINATION OF TOTAL ORGANIC CARBON (TOC) CONTENT IN SHALE FORMATIONS BY ANALYZING WELL LOGGING MEASUREMENTS: Jianguo Wang (China University of Petroleum, University of Regina), Daihong Gu (China University of Petroleum), Daoyong Yang (University of Regina)

12:00-13:15 Lunch
Geophysics / Geomechanics

Chairperson: Tetsuya Yamamoto (JAPEX)

13:15  S  CASE STUDIES OF BOREHOLE ACOUSTIC REFLECTION SURVEY (BARS): Nobuyasu Hirabayashi, Gabriela Martinez, Erik Wielemaker (Schlumberger)

13:35  T  HYDRAULIC FRACTURES DELINEATED BY A RELATIVE MICROSEISMIC MULTIPLETS HYPOCENTER IMAGING TECHNIQUE: A CASE OF SINGLE WELL MONITORING AT EAGLE FORD SHALE FIELD: Yusuke Kumano, Tetsuya Tamagawa (JAPEX)

13:55  U  PREMATURE SCREENOUT CAUSED BY MULTIPLE FRACTURES - EFFECT OF SHEAR DILATION ON NATURAL FRACTURES AND FLUID VIScosITY -: Tetsuya Tamagawa (JAPEX), Kimio Watanabe (Renergies Ltd.)

14:15  V  APPLICATION OF ADVANCED DEPTH IMAGING TECHNIQUE TO “TENPOKU SEIHOU 3D” DATA: Masato Minegishi, Masayuki Orito (MOECO), Karl Hosgood (Paradigm)

14:35-14:55  Coffee Break

Case Study

Chairperson: Takehiro Minawa (MOECO)

14:55  W  3D NEAR WELL STRUCTURAL MODELING INTEGRATION WITH OFFSET VSP ENHANCES SEISMIC DELINEATION IN A FIELD WITH CHALLENGING SEISMIC DATA. A CASE STUDY OF ”BHG” FIELD, INDONESIA: Leonora Ludwina Lilasari, Graeme Paterson, Philip Armstrong, Dedi Juandi (Schlumberger), Erlangga Septama, Adang Sukmatiawan, Benny Nugroho Ardiansyah, Tri Handayani (Pertamina EP)

15:15  X  MAXIMIZE THE VALUE OF IMAGE LOG DATA AND CORE SAMPLES: - HOW TO UTILIZE GEOLOGICAL DATA -: Chiaki Morelli (Schlumberger), Chihiro Kodaira, Shiori Irie (INPEX)

15:35  Y  LOG CHARACTERISTICS OF CARBONATE RESERVOIR DUE TO DIAGENESIS EFFECT: Benyamin (SKKMigas)

16:00-16:20  Closing
<table>
<thead>
<tr>
<th>Post</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairman</td>
<td>Masanori Kurihara, Waseda University</td>
</tr>
<tr>
<td>Vice-Chairman/Program</td>
<td>Tatsuki Endo, Schlumberger K.K.</td>
</tr>
<tr>
<td>Finance</td>
<td>Kunihiro Tsuchida, JOGMEC</td>
</tr>
<tr>
<td>Printing/Proceedings</td>
<td>Hideo Komatsu, INPEX</td>
</tr>
<tr>
<td>Sponsor</td>
<td>Takehiro Minawa, Mitsui Oil Exploration Co., Ltd.</td>
</tr>
<tr>
<td>Technical Arrangement</td>
<td>Tadahiro Nagano, Schlumberger K.K.</td>
</tr>
<tr>
<td>Int’l Coordination</td>
<td>Takayuki Kanno, Schlumberger K.K.</td>
</tr>
<tr>
<td>Facilities/Poster</td>
<td>Tetsuya Yamamoto, JAPEX</td>
</tr>
<tr>
<td>Award/Gift</td>
<td>Tatsuya Sato, Geothermal Energy R &amp; D Co., Ltd.</td>
</tr>
<tr>
<td>Award/Count</td>
<td>Chisato Konishi, OYO Corporation</td>
</tr>
<tr>
<td>Entertainment</td>
<td>Masato Nakadai, Geophysical Surveying Co., Ltd</td>
</tr>
<tr>
<td>Review</td>
<td>Hisao Ito, Independent Scientist</td>
</tr>
<tr>
<td>Review</td>
<td>Hidekazu Kuraguchi, MCX</td>
</tr>
<tr>
<td>Review</td>
<td>Hiroshi Asanuma, AIST</td>
</tr>
<tr>
<td>Review</td>
<td>Tetsuya Tamagawa, JAPEX</td>
</tr>
<tr>
<td>Review</td>
<td>Takeo Aoyama, JX Nippon Oil &amp; Gas Exploration</td>
</tr>
<tr>
<td>Review</td>
<td>Yoshinori Sanada, JAMSTEC</td>
</tr>
<tr>
<td>Registration</td>
<td>Kinuko Yanagi, Schlumberger K.K.</td>
</tr>
<tr>
<td>Registration</td>
<td>Yumi Harada, Schlumberger K.K.</td>
</tr>
<tr>
<td>Registration</td>
<td>Kanako Furuto, JAPEX</td>
</tr>
</tbody>
</table>

**Corresponding Address:**

Yumi Harada  
Schlumberger K.K.  
2-2-1 Fuchinobe, Chuo, Sagamihara, Kanagawa 252-0206, Japan  
Tel: +81 (42) 759 2113  
e-mail: YHarada@slb.com
# Registration Information

## REGISTRATION FEE

<table>
<thead>
<tr>
<th></th>
<th>Pre-Registration (by Sep. 12)</th>
<th>On Site Registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member or Speaker</td>
<td>6,000 yen</td>
<td>7,000 yen</td>
</tr>
<tr>
<td>Non-member</td>
<td>7,000 yen</td>
<td>8,000 yen</td>
</tr>
<tr>
<td>Student</td>
<td>free</td>
<td>1,000 yen</td>
</tr>
</tbody>
</table>

Registration fee entitles a delegate to:
- Proceedings
- Technical program

## HOW TO REGISTER

The enclosed Pre-Registration Form must be returned to:

Yumi Harada  
Schlumberger K.K.  
2-2-1 Fuchinobe, Chuo, Sagamihara, Kanagawa 252-0206, Japan  
Tel: +81 (42) 759 2113  
e-mail: YHarada@slb.com

The Deadline for the receipt of the Pre-Registration Form will be **September 12, 2016**.  
No prior proof of payment is necessary. If any change in your registration is necessary, it must be made in writing to the above address no later than September 28. No changes or cancellations can be made by telephone. Any registration after September 28 is requested to be made on site.

## HOW TO PAY

All payments should be made on site by **cash in Japanese Yen**.  
No check or credit card will be accepted.

## Speaker Information

All speakers are asked to make pre-registration by **August 19, 2016**.

LCD projector is available. All speakers who use LCD are asked to carry their Power Point files by CD ROM or USB memory and register them in the Slide Center corner at their earliest of convenience.  
Each oral presentation is allocated **20 minutes** including question and discussion. Presentation should be made in **English**.
General Information

DATE: Thursday, September 29, and Friday, September 30, 2016
VENUE: Technology & Research Center (TRC)
         Japan Oil, Gas and Metals National Corporation (JOGMEC)
         1-2-2, Hamada, Mihama-ku, Chiba 261-0025, Japan
         Tel: +81 (43) 276 9212

HOW TO GET TO THE JOGMEC-TRC:

From Makuhari-Hongo Station (JR Sobu Line; 40 min from Tokyo station)
- 10 min. by taxi or 30 min. on foot
- 10 min. by City bus (see below map and bus schedule)

From Kaihin-Makuhari Station (JR Keiyo Line; 30 min. from Tokyo station)
- 10 min. by taxi or 20 min. on foot
- 10 min. by City bus (see below map and bus schedule)

City Bus Service
City bus services are available from Makuhari-Hongo Station and Kaihin Makuhari Station. Please refer to the bus schedule in the next page. The fare is 170 yen. There are several bus lines between Makuhari-Hongo Station and Kaihin Makuhari station. Please take “Columbus City Line” and get off at “Sekiyu Kaihatsu Gijyutsu Center”.

![Map of Makuhari and surrounding areas showing bus stops and infrastructure.](image-url)
Bus Schedule -Columbus City Line-

<table>
<thead>
<tr>
<th>平日(Week day)</th>
<th>平日(Week day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>06 23 43 58</td>
<td>07 22 34 52</td>
</tr>
<tr>
<td>07 22 34 52</td>
<td>07 22 35 52</td>
</tr>
<tr>
<td>08 23 45 56</td>
<td>09 25 45</td>
</tr>
<tr>
<td>09 25 45</td>
<td>10 05 25 45</td>
</tr>
<tr>
<td>10 05 25 45</td>
<td>11 05 25 45</td>
</tr>
<tr>
<td>11 05 25 45</td>
<td>12 05 25 45</td>
</tr>
<tr>
<td>12 05 25 45</td>
<td>13 05 25 45</td>
</tr>
<tr>
<td>13 05 25 45</td>
<td>14 05 25 45</td>
</tr>
<tr>
<td>14 05 25 45</td>
<td>15 05 25 45</td>
</tr>
<tr>
<td>15 05 25 45</td>
<td>16 05 25 45</td>
</tr>
<tr>
<td>16 05 25 45</td>
<td>17 05 25 45</td>
</tr>
<tr>
<td>17 05 25 45</td>
<td>18 00 20 37 48</td>
</tr>
<tr>
<td>18 00 20 37 48</td>
<td>19 10 27 40 59</td>
</tr>
<tr>
<td>19 10 27 40 59</td>
<td>20 15 29 46</td>
</tr>
<tr>
<td>20 15 29 46</td>
<td>21 03 15 30</td>
</tr>
<tr>
<td>21 03 15 30</td>
<td>22</td>
</tr>
</tbody>
</table>

For Makuharihongo-Station

For Kaihinmakuhari-Station

For JRGakushikan-Station

For Oil Development Technology Center (JOGMEC-TRC)
Accommodation and other travel arrangement

Should you require any assistance for visa and other travel arrangement during the Symposium at JOGMEC-TRC Makuhari, please contact JFES Secretary at the following address by E-mail:

**Kinuko Yanagi**  
Schlumberger K.K.  
2-2-1 Fuchinobe, Chuo, Sagamihara, Kanagawa 252-0206, Japan  
Tel: +81 (42) 759 5703  
e-mail: KYanagi@slb.com

*Please check required days for the visa application to the embassy of your location. In order to make proper arrangement, please send your request no later than **August 14**.*

**Land Transportation**

For foreign visitors, limousine bus service is the most convenient from Narita Airport to the hotel. Please go to the orange colored "Friendly Airport Limousine Bus" booths, and get on the bus that goes to your hotel. “Keisei Bus” goes to Makuhari area. The cost of the bus will be around 2,400 – 3,000 yen depending on the destination.

Taxi to the hotel around Makuhari area is more than 10,000 yen. The taxi to the center of Tokyo will cost around 30,000 yen.

“Meet & Assist Service” is available on request. The request should be made at least 2 weeks in advance. It will cost about 12,000 yen or more depending on the type of service of your request.

**Accommodation**

Some examples of the hotels in Makuhari and Tokyo area are listed below and available at your choice. The actual price will be available once the final itinerary is presented and confirmed. To make the reservations, please contact directly to the hotels.

**Makuhari Area**  
20 min. walk to JOGMEC-TRC or 10 min. by taxi

- Hotel the Manhattan  
- Hotel Springs Makuhari  
- APA Hotel & Resort Tokyo Bay Makuhari  
Tokyo area
40 min. to Makuhari Hongo (via Sobu Rapid Train Service) then JOGMEC-TRC bus to Symposium

- Shinagawa Prince Hotel

- Méricure Hotel Ginza Tokyo
The 22nd Formation Evaluation Symposium of Japan
JOGMEC-TRC, Chiba, Japan, September 29 - 30, 2016

Pre-Registration Form

Name: ________________________________  □ SPWLA Member
□ Non-Member
□ Speaker
□ JOGMEC-TRC / Student

Institute or Company: ________________________________

Mailing address: ________________________________

Tel: __________________________  Fax: ________________________________
e-mail: __________________________

Fee
Registration:  Member or Speaker  □ 6,000 yen
Non-Member  □ 7,000 yen
Student  □ free

Total __________________________ yen

Please circle: Sept. 29th / Sept. 30th / Icebreaking party  Signature:

Note: Registration fee includes icebreaking party fee.

Please return this form complete by September 12, 2016 to:

Yumi Harada
Schlumberger K.K.
2-2-1 Fuchinobe, Chuo, Sagamihara, Kanagawa 252-0206, Japan
Tel: +81 (42) 759 2113
e-mail: YHarada@slb.com