



WORKSHOP

TECHNICAL PROGRAM

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24-25 August 2010 | Barton Creek Resort, Austin, TX, USA

Distributed Fiber-Optic Sensing for Well and Reservoir Monitoring

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Distributed fiber-optic monitoring systems within the E&P industry provide continuous measurements with large spatial coverage, frequently along the entire length of a well or pipeline. Distributed temperature sensing (DTS) currently predominates, although significant numbers of other measurements are quickly being introduced. This applied technology workshop focuses on field installations, application targets, data management and interpretation of distributed fiber-optic sensor measurements. Whenever possible, emphasis will be placed on case studies which integrate multiple measurements from among such sensor types as strain, pressure, acoustics and temperature to obtain more-nearly-complete reservoir and well surveillance than seen with individual measurements.

SPONSORS



General Information:

Americans With Disabilities Act

Our events and functions are accessible to all attendees with wheelchairs. If you require special arrangements, please contact our staff at the Registration Desk.

Alcohol Policy

SPE recognizes the legitimate serving of alcoholic beverages in the process of conducting business and social activities. We also recognize that the use and consumption of alcohol carries with it the requirement for all attendees to consume those beverages responsibly.

Commercialism

In remaining consistent with workshop objectives and SPE guidelines, commercialism in presentations will not be permitted. Company logos should be used only to indicate the affiliation of the presenter(s).

Continuing Education Units

Attendees will receive 1.6 CEUs.

One CEU equals 10 contact hours of participation. CEUs will be awarded through SPE Professional Development for participation and completion of SPE workshop. A permanent record of a participant's involvement and awarding of CEUs will be maintained by SPE.

Documentation

Following the workshop, a URL containing released copies of the workshop presentations will be available to attendees. A summary report of the workshop will also be made available. The copyright of the report will belong to SPE.

Guest/Spouse

Only registered guests are permitted to attend the receptions.

Electronic Devices

As a courtesy to the speakers and your fellow registrants, please turn off all electronic devices during presentations.

Name Badges

Please wear your badge at all times. It is a courtesy to your fellow registrants, speakers and sponsors.

Photography Policy

SPE reserves the exclusive rights to all recording or reproductions of the workshop. Unauthorized recording is expressly prohibited, whether by video, still or digital camera, mobile phone, or any other means or form of reproduction.

Any person attending may be photographed or videotaped, and by your attendance, you give permission to use your image in possible future marketing publications including print, online, and video.

Workshop Format

Workshops maximize the exchange of ideas among attendees and presenters through brief technical presentations followed by extended Q&A periods. Focused topics attract an informed audience eager to discuss issues critical to advancing both technology and best practices.

Many of the presentations are in the form of case studies, highlighting engineering achievements and lessons learned. In order to stimulate frank discussion, no proceedings are published and members of the press are not invited to attend.

Monday, 23 August

1800-1930

Welcome Reception – *Barton Creek AB*

Tuesday, 24 August*

0700-0800

Registration – *Forum Foyer*

Materials sponsored by: **Schlumberger**

Continental Breakfast – *Forum Foyer*

Sponsored by: **ConocoPhillips**

**All Technical Sessions will be located at the Forum Amphitheater*

0800-0930

SESSION I: OPENING SESSION

Audio/Visual Sponsored by:



Chairman's Welcome – *Dennis Dria, Myden Energy Consulting, PLLC*

Keynote Address: Distributed Fiber-Optic Sensing Application & Interpretation, Getting it Right – *Tom Moroney, Shell*

Keynote Address: Real Time Command and Control, From the Moon to Commercial Off-The-Shelf – *Marv Leblanc, Cimmaron*

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0930-1000

Coffee Break – *Forum Foyer*

Sponsored by:



1000-1200

SESSION II: OFFSHORE INSTALLATIONS

*Chairs: Robert Greenaway, Schlumberger
Mikko Jaaskelainen, SensorTran*

Presentation 1: Monitoring Flow and Completion Integrity of a North Sea Subsea HPHT Well

George Brown, Schlumberger

Presentation 2: Subsea Monitoring Across Sand Screen

Philippe Legrand, Baker Hughes

Presentation 3: Optical Feedthrough System

Ron Person, Deutsch

1200-1330

Lunch – *Hill Country Dining Room*

Sponsored by:



1330-1500

SESSION III: ONSHORE INSTALLATIONS

*Chairs: Etienne Samson, Pinnacle, A Halliburton Service
Charles Crawley, Chevron*

Presentation 1: Application of DTS & DAS for E&P Downhole In-Wellbore Monitoring

Mathieu Molenaar, Shell

Presentation 2: Fiber-Optic Deployment in an Onshore Intelligent Completion

David Attaway, Halliburton

Presentation 3: Fiber-Optic Monitoring of a Carbon Dioxide Sequestration Well

Kelly Jackson, BMP Enterprises

1500-1530

Coffee Break – *Forum Foyer*

Sponsored by:



1530-1700

SESSION IV: COMPLETION & STIMULATION MONITORING

*Chairs: Steven Mathias, Weatherford International
Hays Allen, Fotech Solutions*

Presentation 1: Integrated Analysis Combining Microseismic Mapping and Fiber-Optic DTS

Eric Holley, Pinnacle, A Halliburton Service

Presentation 2: Low Cost Microseismic + DTS

Mark Wilkinson, Baker Hughes

Presentation 3: Fiber-Optic Distributed Temperature Monitoring Employed with Coiled Tubing in Horizontal Wells to Improve Acid Stimulation of Carbonate Formations

George Brown, Schlumberger

1700-1900

Reception – *Live Oak Room*

Technology Showcase – *Live Oak Room*

Technology Showcase

Participants

AFL Technologies

AP Sensing

Halliburton

LIOS Technology

LxData

Nufern

SensorTran

Verrillon

Gulf Coast Downhole Technologies

Fibertronix

Wednesday, 25 August*

0700-0800

Registration – Forum Foyer

Materials sponsored by: **Schlumberger**

Continental Breakfast – Forum Foyer

Sponsored by:  **Weatherford**

**All Technical Sessions will be located at the Forum Amphitheater*

0800-0930

SESSION V: PRODUCTION ALLOCATION AND INJECTION PROFILING

Audio/Visual Sponsored by:



Chairs: *Hays Allen, Fotech Solutions*

Etienne Samson, Pinnacle, A Halliburton Service

Presentation 1: Subsea DTS – Interpretation Challenges

John Lovell, Schlumberger

Presentation 2: Novel SAGD Surveillance and Advancements in FBG Pressure Temperature Arrays

Scott Tinkham, LxData

Presentation 3: Integrated Distributed Acoustic & Distributed Temperature

Bill Lissoway, Pure Energy

0930-1000

Coffee Break – Forum Foyer

1000-1130

SESSION VI: INTEGRITY MONITORING

*Chairs: Steven Mathias, Weatherford International
Dennis Dria, Myden Energy Consulting, PLLC*

Presentation 1: Real-Time Distributed Fiber-Optic Strain Monitoring of Sand Control Systems
Jeremy Pearce, Shell

Presentation 2: Application of Fiber-Optics in Reservoir Monitoring and Well Integrity Surveillance, Azeri Field Cases
Ivan Pinzon, BP

Presentation 3: Integrity Monitoring of Subsea Installations
Rogério Ramos, Schlumberger

1130-1300

Lunch – *Hill Country Dining Room*

1300-1500

SESSION VII: DATA MANAGEMENT, ANALYSIS & WORKFLOW

*Chairs: Philippe Legrand, Baker Hughes
Robert Greenaway, Schlumberger*

Presentation 1: DTS Data Delivery System - An Integrated Solution
Giles Powell, Schlumberger

Presentation 2: Secure Low-Cost, High-Volume Data Transmission of Well Site Data to Remote Surveillance Centers
A. Clark Sann, Baker Hughes

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Presentation 3: Complex Events Processing for Surveillance

John Reed, Knowledge Reservoirs

Presentation 4: Distributed Fiber-Optic Surveillance: Making it Work

Paul Paterson, Shell

1500-1515

Coffee Break – Forum Foyer

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1515-1645

SESSION VIII: NEW TECHNOLOGIES/ENABLING TECHNOLOGIES

Chairs: Dennis Dria, Myden Energy Consulting, PLLC

Philippe Legrand, Baker Hughes

Presentation 1: Distributed Acoustic Monitoring in SAGD Operations

Doug Gibson, Fotech Solutions

Presentation 2: DTS Transient Monitoring for Fluid Level Identification

Mark Vincent, Schlumberger

Presentation 3: Intelligent Distributed Acoustic Sensor (iDAS) for Real-Time Well and Reservoir Monitoring

Mahmoud Farhadiroushan, Silixa

1645-1700

Closing Comments: Dennis Dria, Myden Energy Consulting, PLLC



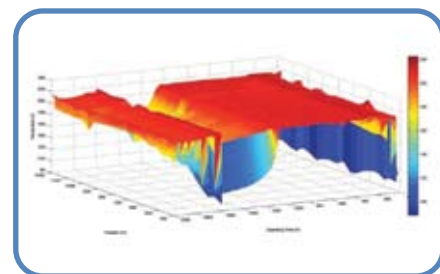
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Take control with proactive production management by identifying inefficiencies and quantifying gas and water entry. Always on, real-time diagnostics to your desktop, updated every second.

→ APPLICATIONS AND BENEFITS

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- Boost efficiency and produce more natural gas



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SPE North America Workshops

**4-6 October
2010**

SPE/AAPG Naturally Fractured Reservoirs

The Lodge at Vail
Vail, CO, USA

**6-7 October
2010**

Final Commissioning and Initial Start-Up

Omni La Mansion del Rio
San Antonio, TX, USA

**5-10 December
2010**

**AAPG/SPE/SEG/SPWLA Hedburg Research Conference:
Critical Assessment of Shale Resource Plays**

Austin, TX, USA

**3-5 May
2011**

**Tight Reservoir Completions:
Technology Applications and Best Practices**

Rimrock Hotel
Banff, Canada

**6-8 June
2011**

R&D Symposium

Barton Creek Resort
Austin, TX, USA

**19-20 July
2011**

**SPE/AAPG /SPEE Symposium: Reserves and Resources
Estimation and Reporting- Moving Forward**

Houstonian Hotel
Houston, TX, USA

Upcoming Conferences

20-22 September

SPE Annual Technical Conference and Exhibits (ATCE)

Florence, Italy

19-21 October

**SPE Canadian Unconventional Resources
and International Petroleum Conference (CURIPC)**

Calgary, Canada