SPWLA
—— *Houston Chapter News*

March 2008 LUNCHEON MEETINGS

Westside BP Plaza Wednesday, March 12	Imaging of a subsurface conductivity distribution using a time -domain electromagnetic borehole conveyed logging tool by Erik Banning, PhD
Greenspoint Halliburton Wednesday, March 19	Reducing Completion Failure Risk in the Slim Hole World Using FPWD Tools by David Schaper
Downtown Hess Office Tuesday, March 18	Producibility Prediction in Gas Sands through Effective Integration of NMR, Resistivity and Proosity Log Data by Scott Jacobsen

President's Corner

Folks,

Having served on the board of directors in the Houston Chapter of SPWLA for the past 3 years, I can honestly say it has been one of the more memorable experiences of my oilfield career. I have witnessed the introduction of our new web site and the 1st annual Houston SPWLA golf tournament. I have also met and made many new friends, some of which I'm sure will keep in touch in the years ahead. I have also been privileged to work with a great board of directors and enthusiastic membership as we launch our efforts to host the 2009 Annual Symposium here in The Woodlands (thanks to Hani for accepting the role of General Chair).In spite of all the fun I'm having, I must now move out of the Houston area. Halliburton has asked that I transfer to Colorado in the coming weeks. In accordance with our SPWLA bylaws, the business area VP (downtown) is my successor as president of the Chapter. Joe Comisky has agreed to accept this responsibility for the remainder of my term. You are in good hands!As I get ready to move, I must thanks all of you I have had the pleasure of meeting and working with. Our new board members this year, Joe Comisky, Dean Jackson, Jeff Alford, and Jose Silva, are all doing outstanding work. They have maintained or grown the level of attendance in each of their respective areas. I owe a special thanks to Paul Connolly, Don Hartman, Scott O'Beirne, Brian Driskill, and Ken Kemp. Over the past several years, they have been the glue in our organization and have each helped me learn the SPWLA processes. I will miss working directly with all of you. Please keep in touch. My email address at Halliburton will remain the same.

As a reminder, I would like once again to bring attention to the upcoming elections for next year's Houston chapter board of directors. This year, we will be accepting nominations for office through March 31, sending out electronic ballots by April 15, and reporting back to the membership with results on May 21 at the annual Spring Topical Conference. Please discuss opportunities to serve this chapter either on the board or on the 2009 Conference team with any of the current board members.

Furman Kelley
Houston Chapter President

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Westside Luncheon Meeting

Imaging of a subsurface conductivity distribution using a time-domain electromagnetic borehole conveyed logging tool

by

Erik Banning, PhD

Date:	Wednesday March 12	Place:	BP Plaza Conference room next to the Cafeteria. Westlake 4 200 Westlake Park Blvd.	Reservations:	Email: jose.silva@techsia.com
Time	Lunch: 11:30 am Talk: 12:00 Noon	Price:	Purchase lunch in cafeteria and bring to adjacent conference room.	Parking	BP Plaza Garage
Special Instructions		Everyone MUST sign in AND out at the Lobby Security desk! After receiving security badge, get your lunch and come to the 3rd floor. Follow the SPWLA signs to the conference room.			

Abstract:

This talk, presented at the 2007 SEG, discusses the application of Time-domain ElectroMagnetics (TEM) in a borehole-conveyed logging tool. Defining concepts like apparent conductivity, apparent dip and apparent azimuth, we show that such a tool may be used to image the conductivity distribution around and ahead of the drill bit at comparatively large distances from the borehole. As such, a TEM tool would be instrumental in optimal placement of a well in a hydrocarbon reservoir.

Biography:

Erik Banning is employed by Shell as a senior researcher and is leading the Shell side of the TEM project, which is part of a JDA between Eni and Shell. With a PhD and an MSc in theoretical physics from the University of Twente (Netherlands), Erik has spent most of his 11-year Shell career on projects dealing with electromagnetics in petrophysical settings. In addition, he has worked as a petrophysicist on several projects dealing with Shallow Water Flow and Geohazard issues.

Greenspoint Luncheon Meeting

Reducing Completion Failure Risk in the Slim Hole World Using FPWD Tools

by

David Schaper

Date:	Wednesday March 19	Place:	Halliburton Patio Cafe, Bldg D 3000 N. Sam Houston Pkwy East	Reservations:	none required
Time	Lunch: 11:30 am Talk: 12:00 Noon	Price:	Select food and pay (typically $3-6)	Parking	Enter Halliburton, proceed to the "T" just past Bldg A, turn right to park.

Abstract

Shell continues to push the LWD slim hole envelope at its Gulf of Mexico Brutus field with world firsts by running Sperry Sun's 4 ¾" GeoTap FPWD (Formation Pressure While Drilling) and Rotary Steerable tools. Developing slim hole technology is critical in fields such as Brutus with only an eight slot TLP and field redevelopment limited primarily to a slim hole (5 ½" casing) environment. In addition, acquiring pressures to identify differentially depleted layers in completion intervals is critical to completion integrity. Acquiring formation pressures while drilling has become the method of choice to acquire pressures in highly depleted sands while minimizing borehole exposure and cost by eliminating wire line runs and wiper trips. This talk will highlight both field development applications of FPWD technology along with insights to improve operational performance.

The GeoTap/Quad combination was used on four wells at Brutus. In the A-3 well, with 6000 psi overbalance, 11 pressures were acquired to identify a differentially depleted layer within the J2 interval. Data acquired was used to modify the completion interval to reduce the failure risk associated with differential depletion. The well was cased and completed with no issues and has performed above expectations. In the A-7 wells FPWD/Quad evaluation strings were run and fifteen pressures were acquired. No differential depletion was observed and the entire zone was completed and is producing as expected. The A-5ST3 well was also drilled and evaluated with an FPWD/Quad and 20 pressures were acquired. Formation pressure data while drilling was used to modify mud weights, evaluate zones for possible uphole recompletions, and confirm the presence of differential depletion. As with the A-3 well, the FPWD data was used to modify the completion interval and the well has performed above expectations.

Over the course of four slimhole FPWD runs at Brutus, numerous advancements in operational procedures have been implemented. These include the use of three versus two drawdowns to reduce or eliminate minor supercharging, along with monitoring the difference between pumps-on versus pumps-off pressure acquisition, which indicated a difference of less than one psi in Brutus type (half-Darcy to Darcy unconsolidated Plio-Pliocene) sands. This knowledge enabled the team to acquire high quality data, reduce the risk of sticking the BHA, and increase hole cleaning while continuously circulating.

Biography

David Schaper is a Petrophysical Engineer at Shell Exploration and Production Company in New Orleans, LA. He earned a B.S. in Geology and Geophysics in 1999 from the University of Wisconsin-Milwaukee and a M.S. in Geological Engineering from the University of Wisconsin-Madison in 2002, joining Shell shortly after graduating. He is currently a petrophysical engineer for a number of Shell's subsea fields, specializing in operational petrophysics. He is a SPWLA Distinguished Speaker for 2007-2008 and also serves as President of the New Orleans SPWLA chapter.

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Downtown Luncheon Meeting

Producibility Prediction in Gas Sands through Effective Integration of NMR, Resistivity and Porosity Log Data

by

Scott Jacobsen

Date:	Tuesday March 18 NOTE DAY CHANGE	Place:	Hess Office One Allen Center 500 Dallas Street	Reservations:	Make reservations as early as possible. Call 713-609-5960 and leave a message for SPWLA Reservations or email at Kkemp@hess.com
Time	Lunch: 11:30 am Talk: 12:00 Noon	Price:	$15 with reservation	Parking:	Regency Parking at 1100 Smith Allen Center Visitor Garage Various outdoor lots
Special Instructions:	One Allen Center is at the corner of Smith and Dallas. The Hess lobby is on the second level adjacent to the Smith Street entrance. You will need to check in through Security. Please arrive prior to 11:30 am to allow time to check in and get to the meeting room. There are numerous parking places in the area, a few of which are listed above.				

Abstract

In the bulk of the mature gas reservoirs in the U.S., effective completion techniques rely on accurate evaluation of not only gas volumes in place in the reservoir but also whether subsequent stimulation will result in water production, and in what proportion to the gas production. This evaluation has traditionally centered on calculations of porosity and water saturation.

However, water saturation is a static assessment of reservoir fluids in place, and not necessarily an indicator of which of these fluids will be produced, except at the extremes of the water saturation spectrum.

An interpretation workflow has been investigated which integrates resistivity, NMR, and porosity log data to enhance traditional formation evaluation to provide a prediction of hydrocarbon and water production percentages throughout the entire logged interval for the initial production of the well. It is displayed as a flow profile that provides, essentially, a pre-completion open-hole production log. This can then be compared to later cased-hole production logs to assess stimulation effectiveness and influence re-completion decisions. It also provides the parameters needed for reservoir simulation of the future production history of the well.

The technique has been used in several gas (and oil) reservoirs in both US land and offshore environments. The analysis is produced efficiently and in time for operators to make completion decisions based on the information.

Biography

Scott Jacobsen is a Petrophysical Advisor with Schlumberger Oilfield Services. He began his career in 1975 as a wireline field engineer and has held a number of technical and interpretation development positions since, working in the U.S., the Middle East, and Europe. He is currently working as Wireline Petrophysics Domain Champion for the US Land Geomarkets. He holds a BS E.E. degree from the University of Notre Dame and a BS in Electronics Technology from Northern Illinois University.

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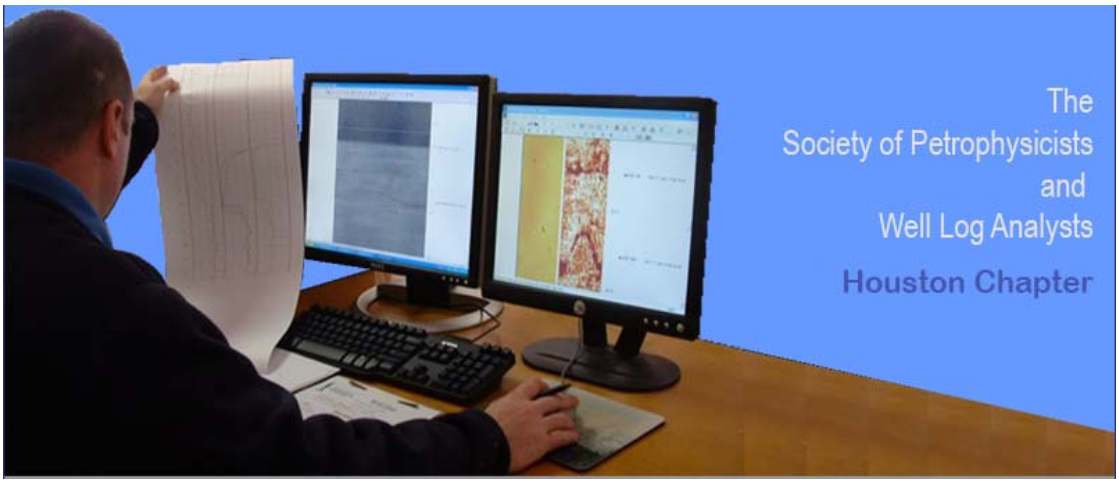

Visit the website at www.spwla-houston.org

SPWLA Houston Chapter News

March 2008

SPWLA meetings are open to members and non-members.

For the Downtown meeting, reservations should be made no later than noon of the day before the meeting. If you reserve and cannot attend, please call to cancel or you may be billed.

Society of Petrophysicists and Well Log Analysts
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