Damon Mound, TX

February Luncheon Review
Fred Hilterman

Oil Price Discussion

Energy Entrepreneurs Social

Running Out of Oil Storage
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On the cover:

On March 3rd, 2015
The eruption of the Villarrica volcano in southern Chile has prompted the evacuation of thousands of people, as it spewed heavy smoke into the air and lava down its slopes.

The 9,000 foot volcano hovers over the city of Pucon, home to about 22,000 people.

Want to be on the cover? Email Jeff Allen, the editor, at JeffAllen@Allen-Hoffman.com
**The meeting will be at the new Petroleum Club, 1201 Louisiana Street on the top floor.**

**Abstract**

Although carbonate reservoirs are notorious for their complexity and heterogeneity at multiple scales, the single most important feature controlling fluid flow in many cases is simple stratification. Petrophysical stratification can exist at many scales, but the scale that is most important for reservoir behavior is typically the scale that can be correlated between wells. One purpose of this presentation will be to reemphasize the importance of this simple layer-cake view of carbonate heterogeneity. Of course many carbonates have a great deal of heterogeneity in complex spatial arrangements. The layer-cake model is an oversimplification of that complexity. Nevertheless, the additional variability often occurs at smaller scales within the correlatable units creating fluid-flow effects that can be captured with relatively simple effective properties. The main impact of these smaller-scale heterogeneities is that they create difficulties for identification, quantification, and modeling of the more-important larger-scale stratification.

In this presentation the importance of petrophysical stratification will be illustrated with fluid-flow models. Then some typical ways in which small-scale variability interferes with adequate modeling of stratification will be described.

Finally, some simple strategies to overcome the distraction of small-scale variability and construct better models of stratification will be summarized.

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**Luncheon registration deadline is Noon, Tuesday March 17**

$30 for Members and Affiliates, $35 for guests and non-members. An additional $5 for late/walk-ups.

*No-shows will be billed.*

Call, fax, or e-mail your reservation to the SIPES-Houston Office. You can sign up online at www.sipeshouston.org, but payment is still required at the luncheon or by mail.

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**Date:** Thursday, March 19  
**Place:** Petroleum Club  
1201 Louisiana St.  
**Time:** Social 11:15

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**Biography**

Jim Jennings is a Principal Research Reservoir Engineer with Shell International Exploration and Production based in Houston Texas where he has been providing consulting on carbonate reservoir modeling and assisted history matching since June 2007. He has 32 years of experience at Shell, The University of Texas at Austin, Arco, and BP primarily in research on characterization, geostatistics, modeling, and scale up for carbonate reservoirs. He holds a BS degree from the University of Wyoming (1978), and MS and PhD degrees from Texas A&M University (1982 and 1983), all in petroleum engineering. Jim was a distinguished lecturer for the AAPG in 2008-2009 and has authored or co-authored over 40 journal and conference proceeding papers. He was chairman for the SPE reprint volume Advances in Reservoir Characterization and is a technical editor for SPE Reservoir Evaluation and Engineering and the Journal of Petroleum Science and Engineering.
100 years ago, the first oil and gas well was completed at Damon Mound, Brazoria County, Texas. On November 15, 1915, the Texas Exploration No. 1 Wisdom well encountered a sand with a show of gas and oil at a depth of approximately 650 feet on the way down to a total depth of 1,953 feet; the last 940 feet drilled in salt. The well was completed with an estimated rate of 100 barrels of oil per day (BOPD) and 5 million cubic feet of gas (MMCFGD) before running wild for several days. The well was eventually controlled, shut-in, and then later sand- ed up. During a workover, the well was junked and abandoned. After the discovery of Spindletop in 1901, many explorers searched the Gulf Coast for similar surface indications of oil and gas. Damon Mound exhibited a dramatic topographic expression for the Gulf Coast; approximately 80 feet above the surrounding area. Some water wells produced sulphur water and “paraffin” or “sour” dirt was present. The “sour dirt” had long been collected at Damon and sold for medicinal uses.

Several published reports mention that five wells were drilled, plugged, and abandoned at Damon Mound from 1901-1904. J.M. Guffey Petroleum drilled the first well at Damon in 1901. The No. 1 Herndon reached a total depth of 1,160 feet in salt. Later the same year, Guffey drilled a second well, the No. 1 Mulcahy. The Damon Mound Oil and Pipe Line Company drilled their No. 1 Mulcahy in 1902 and Guffey plugged and abandoned their third dry hole, the No. 2 Mulcahy, in 1902. R.F. Mulcahy plugged, and abandoned his No. 1 Mulcahy in 1904. Various 1901 editions of the Houston Post discussed the early wells, and there is some confusion on the well names and operators, or perhaps there was actually more drilling in 1901 than just two wells. The Houston Post newspaper closely followed the activity at Damon Mound from April to October, 1901. Expectations ran high for any Gulf Coast location with surface oil indications such as those found at the “Beaumont oil field” (Spindletop). “Wells are to be sunk at Damon’s Mound as quick as possible.” “Indications at this place are far better than in the Beaumont field before it was developed” (April 28, 1901 Houston Post). The June 22, 1901 Houston Post reported on “Mr. Herndon’s machinery and derrick” on the R.T. Mulcahy lease and also mentioned two Guffey rigs. J.H. Herndon was a former Texas state chemist and had acquired leases at Damon. The Herndon well was spud on July 1, 1901 and several days later “a small vein of oil had been reached.” “There was great excitement on the mound” (July 2nd and 11th, 1901 Houston Post). On July 24th, the “other” Guffey well (Mulcahy) “found some gas.” A Mr. W.E. Crammer, “the man with the oil indicator” stopped by to “resurvey” (dowse) the ground at Damon. According to his instrument the Damon Mound is pregnant with gushers and flowing wells, though he says there are dusters there as well” (Houston Post, July 17, 1901).

The derricks were up for Wisdom No. 1 and No. 2 wells and D.R. Beat- ty (of Spindletop fame), who was an officer of the Damon Mound Company, had plans for two future wells at Damon Mound (Houston Post, July 22, 1901). The August 7th Houston Post reported that “four wells are now being drilled at Damon.” The Damon Mound Company well was reported to have found oil at a depth of 400 or 450 feet and the flow was estimated at 100 barrels a day (Houston Post, August 16 & 18, 1901). In the Paducah (KY) Evening Sun (August 22, 1901) this same well was reported as a fifty barrel a day well, and that “six derri- cks have been erected on the mound and five are now drilling.” The August 23, 1901 Houston Post lamented that “no gusher has as yet come in” at Damon Mound. The April 15, 1904 edition of the Galveston Daily News quoted Mr. R.T. Mulcahy about his well which had reached a depth of 226 feet. The well had “encountered considerable gas, black and yellow sulphur, and many traces of oil. So confident are we that oil will be found before we reach a depth of 600 feet that we will not leave the field until it has been thoroughly explored with several wells, properly sunk, in different places.” The lack of oil gushers, unlike at other Gulf Coast oil fields being developed during this time, appeared to bring an abrupt halt to drilling at Damon Mound. There is no record of any additional wells being drilled at Damon Mound until 1915.

The Texas Exploration Company was organized in early 1915 by pio- neer oilman Henry T. Staiti (1874-1933) and some associates. Staiti had earlier brought in one of the first wells in the Humble oil field and would later have success in other Texas Gulf coast oil fields including West Columbia, Orange, South Liberty, Markham, Pierce Junction, and Racoon Bend. Fifteen wells were drilled from late 1915 to 1916 at Damon; all com- mercial failures. Most of these were drilled into the caprock or into the salt. Commercial success finally was achieved in 1917 when 77 wells were drilled; ten of those completed as oil wells. Forty-three of the wells were dry holes and the other twenty-four were drilled to evaluate the commerciality of sulphur production. One of the most significant completions in 1917 was the Texas Exploration No. 3 Bryan which ran wild as a “gasser” for twelve days. Eventually controlled and worked over, the well cleaned up and became an impressive oil well, producing at rates as high as 7,500 BOPD from a sand at 1,410-1,449 feet. Figure 1 is the No. 3 Bryan gusher, photographed by well-known Houston photographer Frank J. Schlueter (1874-1972). The Angelton Times (5/11/1917) headline read, “Bryan No. 3 at Damon Mound is world-beating gusher” and stated that it was “nature’s wonderful exhibi- tion of force.” The discovery suggested that Damon would “rival or exceed Goose Creek and Humble” (oilfields). As with many early oil gushers and gassers, “the crowds at Damon since the big gusher came in have been wonderful. Thursday resembled circus day. People came from all over and from all directions.”

Another early gusher at Damon Mound was the Texas Exploration No. 1 Bryan, an example of perseverance in the drilling and completion of a well. The well spud on January 20, 1916 and experienced many drilling and completion problems until coming in as an oil gusher a year and a half later in July, 1917. A Houston Chronicle (7/31/1917) article titled, “Damon Mound gusher good for 10,000 barrels,” included a statement by Henry Staiti that “it has been a hard fight.” The estimated cost of the well was $100,000, approximately $2 million in today’s dol- lars. The well was nicknamed “the Texas Wonder.” A 150,000 barrel earthen tank was constructed to store the oil.

Sinclair Oil purchased Texas Exploration’s Damon interests in late 1917. In 1920, Humble Oil leased some acreage and soon became an active operator in the field. Eighty-five wells were drilled from 1918-19; 20 oil wells, 51 dry holes, and 14 sulphur tests. The following year, ten excellent oil wells were completed, with an average initial rate of over 1,500 BOPD. The field continued to have mixed success in the 1920s with occasional oil gushers, but also many dry holes. The nearby West Columbia oil field, just ten miles to the south-southeast, overshadowed Damon Mound with several gushers coming in at 5,000-15,000+ BOPD.

Limestone was quarried from the salt dome’s caprock during the 1800s until 1915 and then again in the 1970s. Sulphur was produced at Da- mon Mound from 1952-57 using the French method. Cumulative oil production for the field is 20 million barrels.

Acknowledgement: Thanks to Jamie Murray, Librarian, Brazoria Coun- ty Historical Museum
Damon Mound, TX Pictures
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February Luncheon Review by Russell Hamman

This month’s luncheon was the first one in the new Petroleum Club of Houston facility. Dr. Fred Hilterman spoke on “Seismic Attribute Analysis for the Gulf of Mexico.” The techniques utilize quantitative seismic attributes to reduce risks and are derived from over 25 years of study. This study includes analysis of over 100 reservoirs of various depths and porosities. The three attributes studied are fluid factor, Poisson impedance and lambda-rho. Fluid factor is a boundary attribute derived from pre stack time migration. In a gas reservoir, it is defined as the normal incidence gas response minus the normal incidence wet response. As a result, the fluid factor attribute for a wet sand is zero. Poisson impedance and lambda-rho are both layer attributes derived from acoustic inversion. The example presented utilized these attributes along with calibrated well control to look at depletion in a producing reservoir.

The fluid factor attribute is more accurate than the layer based attributes for this analysis due to its ability to distinguish between gas and brine saturated sands. Through the well log database, the analysis becomes reservoir coupled and therefore more robust by virtue of local, data driven correction factors to the standard equations. Fluid factor is independent of shale properties, reservoir porosity and the seismic wavelet. Through analysis of the near and far offset data, normal incidence primary and shear wave data can be derived, calibrated and used to predict hydrocarbon fill at other reservoirs in the study area. ◆

Fred Hilterman, The Presenter

Don Van Nieuwenhuise with students Luis Carlos Carvjl, Lucia Torrado, and Steve Zehner
News From The Board  Russell Hamman  Pictures Continued

Chairman Jay Moffitt, called the meeting to order at 10 a.m. on Thursday February 19, 2015. The January Board minutes were accepted and the Board moved on to the business of the day.

Bill Smith, Treasurer, reviewed the SIPES Chapter accounts and reported that the checking account currently stands at $66,352.57 and the Savings account holds $50,171.28 at meeting time. The January 2015 luncheon had 78 in attendance, with 81 registered and 6 walk-ins. There were 8 comps and 11 no shows. The SIPES Houston Chapter was the hospitality sponsor. The luncheon hospitality sponsorship has changed to $750.00 per luncheon to better balance the sponsorship level with expenses.

The Independents’ Day celebration has evolved from a semi-annual event to an annual event. Plans are underway to focus more of its effort toward increasing membership efforts. Look for an announcement soon regarding an August date at a centrally located venue.

Plans continue for the joint continuing education symposium with API as well as the technical program for the luncheon speakers. SIPES will interface with API on numerous fronts to hopefully make this year’s event the most successful and largest in history.

The Deal Buyers List will be updated with enhanced functionality when it is implemented on the new website. Hospitality sponsors are needed for the coming year so if you have any favorite companies that you deal with, please pass those names and contact information along to our sponsorship coordinator Christine Milliner. The board is also seeking a new hospitality chairman so if you are interested or know someone who may be interested, please contact B. K. Buongiorno.

The February Board meeting adjourned at 11:30 am.

Larry Rairden Charles and friend

Vanessa Scobie and Jim Tucker

Petrus Energy, LLC.

33 North Sam Houston Pkwy, East Suite 900, Houston, TX 77060 (832) 230-2190

Exploring South Louisiana

Ralph Daigle rjdaigle@petrusenergy.com
Rand Turner rturner@petrusenergy.com
Gary Fortier gfortier@petrusenergy.com
The picture above is Death Valley. What geologic reasons create such a dry and barren environment?

Send answers to the Newsletter Editor, Jeffall@allenhoffman.com

Last Months Answer:
No winner last month. Answers:
The two outer layers of earth are called the Lithosphere and the Asthenosphere
The three types of plate boundaries are divergent, convergent, and transform.
The leading reasoning which drives plate movement is convection currents within the asthenosphere.
Click on the picture below to watch and learn.

Oil Tumbles on Iran, Lybia; Worry about High Supply Returns

- On Monday, March 2nd, Brent futures fell 5%, the most in a month, as speculation of a nuclear deal that could lift Iran's sanctions and boost its oil exports brought worries about high supply.
- Brent futures were also pressured by data showing Libya's output had grown to above 400,000 barrels per day from 363,000 bpd in January. The dollar's rise to an 11-year high had weighed on greenback-denominated commodities as well.
- "I think we've been subjected to a reality check after the fake rallies of last week," said Dominick Chirichella, senior partner at the Energy Management Institute in New York. "The reality is there's a huge surplus of oil not only in the United States, but also globally, and it's growing."
The Energy Entrepreneurs Social
Hosted by the Houston Association of Professional Landmen
For Landmen, Engineers, Geoscientists and Financiers
Hosted by HAPL • SIPES, HGS and SPE members welcome

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Fracking Rules Proposed, CO

Many states are proposing new regulations for fracking, while some states have banned fracking completely. In Colorado the heat is on with one group, Coloradans Against Fracking, aiming to ban fracking and a joint task force trying to bring both concerned citizens and the oil companies together to find a compromise. Here is an update on the issue in Colorado from NPR:

A Colorado task force tackling controversial fracking issues is submitting its recommendations to the governor today. The group has been meeting for five months, looking for a compromise on what local governments can do when drilling is proposed nearby. The industry is hailing the task force as a collaborative success, but others say the body did not go far enough. Dan Boyce of member station KUNC reports from Denver.

After voting on 35 recommendations, nine received enough votes from the task force to go to the governor. Task force member and vice president of operations at Anadarko Petroleum, Brad Holly, says the majority of Coloradans are satisfied with most of the state’s drilling.

In other words, when production gets close to towns. One of the recommendations directs oil and gas regulators to find ways to bring local governments into permitting discussions earlier. It also recommends stronger regulations on large facilities with multiple wells and tanks.

Keystone Pipeline, Vetoed

- The GOP-controlled Senate failed Wednesday March 4th to override President Obama’s veto of the Keystone XL Pipeline.
- “Obama and a majority of Senate Democrats have said no to creating new jobs and increasing our energy security. Despite support from the majority of Americans, this important pro-growth project remains in political paralysis” Indiana GOP Sen. Dan Coats.
- North Dakota GOP Sen. John Hoeven is considering attaching the Keystone measure to a highway infrastructure bill.
- The Keystone pipeline would carry 830,000 DOPD of mostly Canadian oil sands crude to Nebraska en route to refineries and ports along the U.S. Gulf Coast.
- Environmentalists want Obama to reject Keystone because of carbon emissions involved in getting oil out of Canadian tar sands.
- Read the full article from REUTERS.
U.S. Running Out of Room to Store Oil

- The U.S. has so much crude that it is running out of places to put it, and that could drive oil and gasoline prices even lower in the coming months.
- That extra crude is flowing into storage tanks, especially at the country’s main trading hub in Cushing, Oklahoma, pushing U.S. supplies to their highest point in at least 80 years, the Energy Department reported last week.
- If this keeps up, storage tanks could approach their operational limits, known in the industry as “tank tops,” by mid-April and send the price of crude — and probably gasoline, too — plummeting.
- "The fact of the matter is we are running out of storage capacity in the U.S.,” Ed Morse, head of commodities research at Citibank, said at a recent symposium at the Council on Foreign Relations in New York.
- U.S. oil production continues to rise. Companies are cutting back on new drilling, but that won’t reduce supplies until later this year.
- The new oil being produced is light, sweet crude, which is a type many U.S. refineries are not designed to process. Oil companies can’t just get rid of it by sending it abroad, because crude exports are restricted by federal law.
- Foreign oil continues to flow into the U.S., both because of economic weakness in other countries and to feed refineries designed to process heavy, sour crude.
- Hillary Stevenson, who manages storage, pipeline and refinery monitoring for Genscape, says Cushing could be full by mid-April. Supplies are increasing at “the highest rate we have ever seen at Cushing,” she says.

The full article HERE

Gateway Exploration is Looking for Prospects and Acquisitions in the Gulf Coast

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Field trip on Saturday, May 2, 2015

Tentative stops to include Drumright Historical Society Museum and discovery wells for Glenn Pool and Cushing oil fields

For symposium details, see: www.petrolemhistory.org

Abstracts being accepted; proceedings to be published in the next volume of Oil-Industry History

Please send abstracts to:
Dr. William Brice (wbrice @pitt.edu)
Abstract deadline: March 1, 2015

The Petroleum History Institute (PHI) will be holding its annual Oil History Symposium in Tulsa, OK from April 30-May 2, 2015. We are contacting oil and gas operators in the area with the hope of obtaining sponsorships for our symposium.

If you have any questions, please feel free to contact me at spencerj320@gmail.com/281 731-5823 or Ray Sorenson at sorensonrk@sbcglobal.net/ 713 410-3998.

Jeff Spencer
2015 PHI president.
MEMBERSHIP INFORMATION

SIPES has three categories of membership: Full, Limited, and Junior Limited. Any membership requires a degree from an accredited college or university in science or engineering in the earth sciences, whether self-employment or employment in industry, government or education as an earth scientist. Full Membership requires at least twelve years of experience. Limited Membership is for those who are employed, while Junior Limited Membership is for applicants with fewer than twelve years experience. Credit is given for time spent working toward a degree. SIPES has a membership reciprocity agreement with the Division of Professional Affairs of the American Association of Petroleum Geologists and with the Society of Petroleum Evaluation Engineers.

The Houston Chapter also has a Houston Chapter Affiliate category available for those who do not qualify for the categories above. Chapter Affiliates are not associated with nor members of the SIPES National Organization.

BENEFITS

- Great Networking Opportunities!
- Monthly Newsletter
- Annual Conventions (New Orleans 2014; Park City, Utah 2015)
- SIPES Membership Directory
- The Deal Buyers List
- Continuing Education Seminars
- Independents’ Day Parties
- Lunch Meetings & Lectures at the Petroleum Club every 3rd Thursday
- Professional and Ethical Standards
Upcoming SIPES Events
March 19th: SIPES Luncheon @ the new petroleum club, 1201 Louisiana

Upcoming HGS Events
Visit HGS.org

Science-Based Events in Houston
Museum of Natural Science Lectures
March 3rd: Lecture, Medicine Without Evolution is like Engineering Without Physics, Randolph M Nesse

University of Houston Free Lectures
March 31st, 5:30-7pm: Our Next Energy Workforce: Where Will It Come From?

Earthquakes Here on the East Coast? Impossible. They Can’t Happen Here - They’ve Never Happened Here!

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