



**SPE-MBGS Joint Meeting**  
**Wednesday, March 14, 2012**

**Michigan State University**  
**Natural Science Building, Room 204**  
**East Lansing, Michigan**  
(see Page 3 for map)

7:00 PM – Talk will begin  
Refreshments will be provided after the talk in the Natural Science Building  
No charge for this meeting

**Topic:**  
**Secondary Oil Recovery Under Delta Pressured Gas Storage**  
**Operations, Columbus III Unit, St. Clair County, Michigan**  
**By**  
**Jac Lentz**  
**Plains Natural Gas Storage**

SPE Meeting Reservation

Name: \_\_\_\_\_

Number Attending: \_\_\_\_\_

Please RSVP by March 13th.

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# Society of Petroleum Engineers – Michigan Section Michigan Basin Geological Society

## Secondary Oil Recovery Under Delta Pressured Gas Storage Operations, Columbus III Unit, St. Clair County, Michigan



**Jac Lentz**  
**Plains Natural Gas Storage**

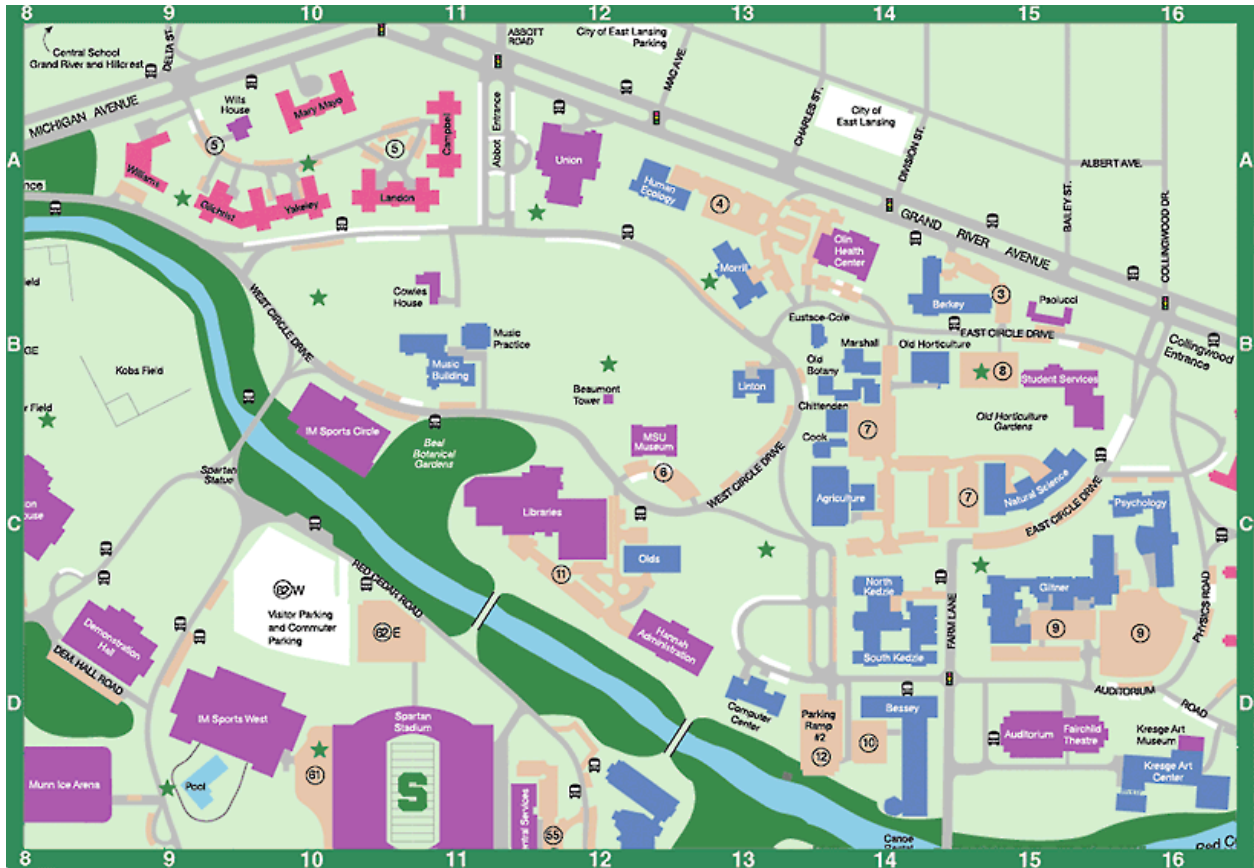
**Abstract:** There are very few reservoirs that have produced both oil and gas under primary production and have been converted to gas storage; the Columbus III field is one of these. The Columbus III field under primary production produced 7.9 MMbo, 1.1 MMb NGL's and 19.5 Bcfg from the A1 Carbonate/Brown Niagaran reservoir. The field was converted to gas storage in 2003-2004 utilizing nine (9) dual and single leg horizontal wells in the gas cap, and six (6) dual and single leg horizontal wells were drilled along the bottom of the original oil zone to recover oil. Subsequent to the storage conversion, three (3) vertical wells have been drilled for oil recovery, and one original Niagaran brine injection well has been re-completed to the Detroit River Group for produced brine disposal. At least three (3) static reservoir models have been built and as many or more predictive simulations have been run on the reservoir over the years for both gas deliverability and oil production forecasting. This presentation will focus on the development of oil recovery system.

**Biography:** Jac Lentz has worked in the gas storage industry for the past 23 years working for ANR Pipeline Co. for nearly 20 of these before accepting the Director of Reservoir Storage position with Plains Natural Gas Storage in 2009. Gas storage experience has included three (3) Michigan Niagaran reef developments, one (1) New York Devonian aged reef development, compressed air energy storage reservoir studies in California and Mississippi, and Michigan Stray sandstone horizontal well developments and storage field operations. Also, numerous bedded and diapiric salt gas storage studies on the desktop and in the field have been undertaken. Current duties include operations and development of the Columbus III unit, brine storage development in Mississippi and due diligence of potential bedded or cavern gas storage projects. Before this, Jac worked for eight (8) years in the exploration and production industry for two (2) producers and explorers in Michigan, Hunt Energy Corp. and Lomak Petroleum, as well as for geological service companies in Michigan, North Dakota, Wyoming and Utah.

Jac holds a B.S. degree in Geology from Indiana State University and is a member of SPE, AAPG, and the Solution Mining Research Institute, (SMRI).

Map to **MSU Natural Science Building, Room 204**

Between 5pm & 6pm you can park in Lot 9 behind Giltner Hall and the Psychology Building (former Physics and Astronomy building) for free. Otherwise, you can try your luck with the metered slots clustered around the Natural Science Building and the adjacent Student Services Bldg; no charge after 6.





**MICHIGAN SECTION NEWS**

**2011-2012 Section Executives**

Chairperson:	Sue Burla	248-205-7414	susan_burla@transcanada.com
Program Chair:	Luke Dewig	248-205-4514	luke_dewig@transcanada.com
Treasurer:	Randy Schroeder	517-676-8063	sresources@att.net
Secretary:	Allison Schwager	248-205-4544	allison_schwager@transcanada.com

**SPE Michigan Section is actively seeking potential officers to serve on the executive committee. If you are interested in joining the Michigan Section executive committee, please contact any of the current committee members.**

**Membership Renewal Reminder**

**Do not forget to join or renew your membership with SPE for 2012!** Visit [www.spe.org](http://www.spe.org) for more information.

**2012 Michigan Section SPE Scholarship**

The Michigan Section of the Society of Petroleum Engineers (SPE) will be awarding a scholarship of \$1,000 to a Michigan college student or an incoming college student who is interested in the petroleum and natural gas industry. Additionally, this year the Michigan Section of SPE is happy to announce that the potential exists to award a second scholarship amounting to \$500 to an additional student. Students only need to fill out one form to apply. These scholarships apply to any students seeking a Bachelor of Science degree in the desired fields of interest for the 2012-2013 academic year and who are currently U.S. citizens and residents of Michigan or attending a 4-year institution in Michigan. The deadline to submit the application materials is July 1<sup>st</sup>. The recipient of the award will be determined by August 1<sup>st</sup>. For more information about the scholarship and application please visit the Michigan Section website at <http://connect.spe.org/Michigan/AboutUs/Scholarships/> or contact Luke Dewig.

**2011-2012 SPE Michigan Section Meeting Schedule**

**March 14, 2012** – Secondary Oil Recovery Under Delta Pressured Gas Storage Operations, Columbus III Unit, St. Clair County, Michigan by Jac Lentz (Joint Meeting with MBGS)

**May 10, 2012** – Drilling and Completion Activities Related Rock Mechanics by Francisco Henriques Ferreira

**SPE International Information**

**Upcoming SPE Events:**

<b>Date</b>	<b>Title</b>	<b>Location</b>
6 - 8 Mar 2012	Horizontal Well Completions in North America Shales	Scottsdale, AZ
6 - 8 Mar 2012	IADC/SPE Drilling Conference and Exhibition	San Diego, California
21 - 23 Mar 2012	SPE Western North American Regional Meeting	Bakersfield, California
27 - 28 Mar 2012	SPE/ICoTA Coiled Tubing & Well Intervention Conference & Exhibition	The Woodlands
11 - 13 Apr 2012	Liquids Rich Shale...Bonanza or Bubble?	Palos Verdes, California
14 - 18 Apr 2012	Eighteenth SPE Improved Oil Recovery Symposium	Tulsa, Oklahoma
23 - 25 Apr 2012	Reducing Environmental Impact of Unconventional Resource Development	San Antonio, Texas
30 Apr - 3 May 2012	Offshore Technology Conference	Houston, Texas
5 - 7 Jun 2012	SPE Americas Unconventional Resources Conference	Pittsburgh, Pennsylvania
12 - 14 Jun 2012	Drilling Meets Formation Evaluation	Montgomery, Texas
20 - 21 Jun 2012	SPE Deepwater Drilling & Completions Conference	Galveston, Texas
24 - 28 Jun 2012	SEG/SPE/AAPG New Advances in Integrated Reservoir Surveillance	La Jolla, California
27 - 28 Jun 2012	Global Integrated Workshop Series: Produced Water Handling	Palos Verdes, California

For information regarding the upcoming SPE conferences or exhibitions, visit the Society for Petroleum Engineers website at <http://www.spe.org/events/calendar/>

**SPE Michigan Section Website – NEW ADDRESS!**

The SPE Michigan Section website is located at <http://connect.spe.org/Michigan/Home/>. Newsletters, contact information and announcements can be found at this website.

**Request for e-mail addresses**

If you received this newsletter by “snail mail”, we do not have your valid e-mail address. Please send an e-mail to [Allison Schwager](mailto:Allison.Schwager@spe.org) so we can update our files and provide information to you on a timely basis.

**Request for feedback**

Comments? Questions? Concerns? How can your SPE section serve you better? To voice your opinion on any aspect of section membership, please contact [Sue Burla](mailto:Sue.Burla@spe.org) or talk to any of the executives at an upcoming meeting.

**Announcements**

Do you have an announcement you would like to share with the Michigan Section membership? Please send an email to [Allison Schwager](mailto:Allison.Schwager@spe.org) for inclusion in an upcoming newsletter.

**Request for Speakers**

We are always looking for speakers for upcoming SPE meetings. If you have a talk on a geological or engineering topic, we can provide the audience. Please contact [Sue Burla](mailto:Sue.Burla@spe.org).

**Advertising Opportunities**

If you are interested in advertising in the Michigan Section newsletter, please contact [Sue Burla](mailto:Sue.Burla@spe.org) or [Allison Schwager](mailto:Allison.Schwager@spe.org). Proceeds from advertising go to the SPE scholarship program.

**Advertising Fee Schedule**

Full page ad	\$75 per month
Half page ad	\$45 per month
Quarter page ad	\$25 per month

Deadline for the next newsletter (May): April 6, 2012.