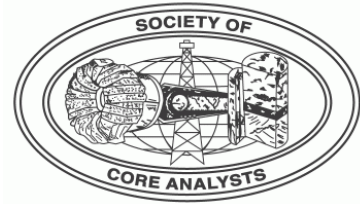


SCANews



The SOCIETY of CORE ANALYSTS

P.O. Box 2861, Dublin, CA 94568-2405

August 2011

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Volume 23, Number 1

Note from the SCA President

By Jules Reed



This year's symposium is fast approaching with only one month before we meet together in Austin, Texas. The manuscripts for papers and posters have been submitted, reviewed, revised and finalised.

This 2011 international symposium is the society's 25th and to acknowledge this jubilee year, the selected symposium theme is "Where We Have Been & Where We Are Going". I am looking forward to the technical sessions; to viewing new technology, new experimental and numerical techniques; to meeting with old SCA friends and, of course, possibly new ones.

There will also be a half day workshop entitled, "Shale Core Analysis – Setting the Standard?", where we will focus on the society's role in the important analyses for this developing resource. The symposium will be rounded off with an optional field trip to Canyon Lake Gorge.

A vast amount of time and hard work have gone into organising the symposium and special thanks must go to the VP Technology, Craig Lindsay, and the 35 members of the Technical Committee, for reading, grading and reviewing the numerous abstracts and then manuscripts which became the oral presentations and exhibited posters, and their corresponding published articles in the proceedings. Of course, the technical sessions could not be attended without the efforts of the VP Arrangements, Boaz Nur, and the Local Organising Committee, in arranging the location and events for this symposium.



2011 SCA Field Trip - Canyon Lake Gorge – Canyon Lake Texas

When I realised this was a jubilee year, I was intrigued about the history of this prestigious society. The SCA was conceived during the 25th SPWLA meeting, between Eve Sprunt and Joel Walls, who worked hard during the following year to convince the SPWLA to create its first Chapter-at-Large. The SCA held its first international symposium in Dallas with Joel as President

and Eve as VP Technology. The following symposium was held in Houston with Eve as President.

This year's board thought it appropriate that the 25th symposium be held close to the society's roots and Austin, the state capital, seemed a fitting venue.

The society currently has 8 board members, 1 Director-at-Large (Doug Ruth) and 10 Regional Directors. These people's time is given voluntarily and I would like to express my heartfelt gratitude to each one. I would also like to thank the companies and institutes who allow these employees the time necessary to organising and aiding the society.

A society cannot survive without funds and thanks must also go to all who have given sponsorship this year and over the past 25 years. Please visit our website to view our current sponsors.

Last, but not least, thanks goes to you as members who aid with your membership fees and in attending the symposia, by submitting abstracts of innovative analyses for review and discussion.

From the Vice President of Arrangements

By Boaz Nur

The Society of Core Analysts would like to welcome attendees to the 2011 Annual Symposium and the 25th anniversary of the SCA. For our 25th anniversary we venture back to the birthplace of the society and a prolific region for the oil and gas industry, the Republic of Texas. Our theme, "*Where We Have Been & Where We Are Going*" highlights the ever changing trends in our industry and the need to consider the past in order to best supply the future needs of industry.

This year's symposium will introduce a number of changes to the symposium of years past, including reduced fees and gratis participation for students and spouses as both a way to thank our members and encourage growth in participation. Our opening workshop, "*Shale Core Analysis – 'Setting the Standard?'*" will contain industry leaders from around the globe and will focus on a new paradigm in our industry, the exploration, development, and production of shale hydrocarbons, and the role of core analysis. The technical program will incorporate lessons learned while keeping in context of where we are headed. We have a great assortment of vendors, technical veterans and leaders, and rising young professionals, ensuring not only a wonderful program but a great opportunity for professional interaction.

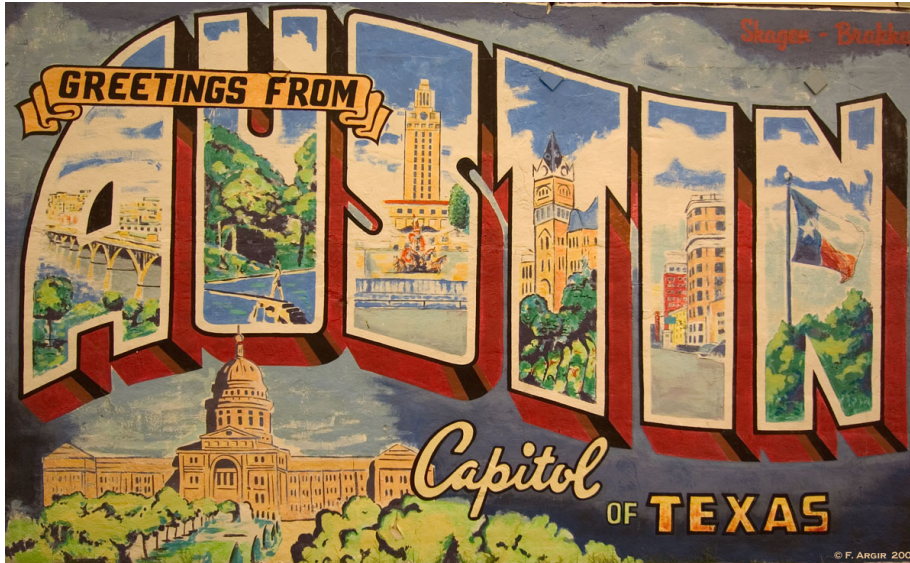


The venue is in the heart of downtown Austin and a hop skip and jump away from the pink marble Texas State Capitol, downtown eateries and watering holes, and the famous Ladybird Lake. Make sure to visit South Congress St. for a little taste of what makes Austin so uniquely Austin. The weather in September, while quite warm during the day makes for beautiful nights.

We have a number of activities planned for spouses, ranging from olive oil ranch tours to antiquing to a local duck tour, giving y'all the chance to absorb some of the local flavors.

The Gala shindig will be hosted at one of the best Texas style Bar-B-Que joints around, The Salt Lick. We will all get a chance to experience some of Texas' best Bar-B-Que in an absolutely enchanting setting by one of the many creeks in the area. (Vegetarian options will be available.) The dinner will be outdoors and the food can be messy, dress accordingly. There will be a surprise at the Gala Dinner so please bring your cameras.

Welcome to Austin and welcome to the great Lone Star State. We know you will enjoy the local culture, food, and hospitality that make Texas famous!



Jos Maas - Darcy Award Winner 2011

The Darcy Award is SCA's technical achievement award that is awarded annually to an individual deemed by the SCA Board of Directors to have made outstanding contributions to the advancement of core analysis technology. The Darcy Award is the SCA's highest honor and the only award for technical achievement.

The SCA and the Awards Committee are honored to announce that Jos Maas is this year's recipient of the Darcy Award.

Excerpts from a Conversation with Eve Sprunt

As Jules mentioned, the SCA was started 25 years ago through the inspiration and combined efforts of Joel Walls and Eve Sprunt. Thank you's to Bas for providing the following excerpt where Eve reflects back on SCA's formation.

"It is wonderful that SCA is now 25 years old. The idea for forming SCA was triggered by the keynote address at the 25th SPWLA meeting, when the speaker talked about why SPWLA was

needed. I was sitting next to Joel Walls and we discussed how all the same issues applied to core analysis.

Joel ... took on the task of convincing SPWLA to create the first chapter-at-large, SCA. I've always been very pleased that I correctly identified a real need and how to address it. SCA was truly "founded" in that when my career took a turn away from core analysis, SCA continued to thrive without my involvement. I've seen many groups vanish when the founder was no longer involved and I was thrilled that was not the case with SCA.

We had the first meeting in Dallas, because that was where I was and we had no funding. Oil price was very low, so it was difficult for people to travel. I reasoned that management would think people were really serious about attending a meeting that was being held in Dallas in August. We met in the hotel just down the street from the Mobil research facility where I worked. I was sweating more from the tension of having the meeting at least cover its costs than from the temperature. The meeting was a success and we had our first tiny reserve fund to use for planning the next steps."

Best regards,
Eve"

Society of Core Analysts

SCA 2011
Where We Have Been & Where We Are Going
25th Year Anniversary



<p><u>Location</u></p> <p>The Sheraton Austin Hotel 701 E. 11th Street Austin, Texas 78701 United States</p>	<p><u>Date</u></p> <p>Sunday, September 18, 2011– Wednesday, September 21, 2011</p>
<p><u>Workshop Theme</u></p> <p>Shale Core Analysis - Setting the Standard?</p>	<p><u>To Register</u></p> <p>www.symposium2011.scaweb.org</p>

General Information

The SCA 2011 Symposium will offer a Sunday workshop, all-day technical sessions Monday-Wednesday, and an optional field trip to Canyon Lake Gorge on Thursday.

Lunches are included along with coffee breaks, CD proceedings, and 2012 membership dues. Students and accompanying persons are complimentary if registered before September 1, 2011.

For more information, visit www.symposium2011.scaweb.org.

*2011 Society of Core Analysts Symposium Technical Program
Celebrating 25 Years of Core Analysis*

SUNDAY, September 18th.

1:00 p.m.-5.00 p.m. Workshop: Shale Core Analysis: Setting the Standards?

MONDAY, September 19th.

8:00-8:15 a.m. Opening Remarks

8:15-9:45 a.m. Laboratory analysis & Applications

Chairs:

SCA2011-01 **Some Practical Lessons Learned During 30 Years in the SCAL Lab**

E. M. (Ted) Braun

SCA2011-02 **Entry Pressure Measurements Using Three Unconventional Experimental Methods**

P.F. Boulin, P. Bretonnier, V. Vassil, A. Samouillet, M. Fleury & J.M. Lombard

SCA2011-03 **The Quest for the True Residual Gas Saturation - An Experimental Approach**

Øyvind Bull, Fred Bratteli, Jon Knut Ringen, Karen Melhuus, Ann Lisbeth Bye & Jan Erik Iversen

9:45-10:15 a.m. Coffee Break in Exhibit Areas (Capitol Ballroom & Capitol View Terrace)

10:15 a.m.-12:15 p.m. Session 2 - CO₂ - Sequestration and EOR

Chairs:

SCA2011-04 **Geologic Storage of Carbon Dioxide: An Experimental Study of Permanent Capillary Trapping and Relative Permeability**

M. Akbarabadi & M. Piri

SCA2011-05 **Displacement and Mass Transfer of CO₂/Brine in Sandstone**

H. Ott, S. Berg & S. Oedai

SCA2011-06 **Wettability Of Common Rock-Forming Minerals In A CO₂-Brine System At Reservoir Conditions**

John Mills, Masoud Riazi & Mehran Sohrabi

SCA2011-07 **CO₂-Saturated Brine Flooding: An Effective Process for Mobilization and Recovery of Waterflood Residual Oil**

John Mills, Masoud Riazi & Mehran Sohrabi

12:15-1:15 p.m. Buffet Lunch in the Capitol Ballroom Foyer

Monday, September 19th - Continued.**1:15-2:45 p.m. Session 3 - Upscaling and Large Scale Processes**

Chairs:

SCA2011-08 **Open Source Simulator DUMU^x Available for SCAL Data Interpretation***Jos G. Maas, Bernd Flemisch & Albert Hebing*SCA2011-09 **A Simplified Approach to Translate Chemical Alteration in Core Experiments to Field Conditions***A. Hiorth, Ø. Bache, E. Jettestuen, L. M. Cathles, R. W. Moe, E. Omdal, R.I. Korsnes & M. V. Madland*SCA2011-10 **Experimental Investigation and Modeling of the Electrical Response of Thinly Layered Shaly-Sands (20 MHz-1GHz)***M. Pirrone, N. Bona, , MT. Galli, F. Pampuri, N. Seleznev, M. Han, L. Mosse, N. Seleznev, M. Han, O. Faivre & M. Hizem***2:45-3:00 p.m. Coffee Break in Exhibit Areas (Capitol Ballroom & Capitol View Terrace)****3:00-3:30 p.m. Exhibitor Presentations I****3:30-4:30 p.m. Poster Presentations I (SCA2011-33 through SCA2011-46)**

Chairs:

4:30-5:15 p.m. Poster Session I**TUESDAY, September 20th.****8:00-10:00 a.m. Session 4 – Relative Permeability Measurement**

Chairs:

SCA2011-11 **Investigation Of Permeability Anomalies***Andrew Cable & Mike Burke*SCA2011-12 **Effect of Oil Viscosity on Water/Oil Relative Permeability***Katayoun S Nejad, Eirik Asbjørn Berg & Jon Knut Ringen*SCA2011-13 **Gas Phase Relative Permeability Characterization on Tight Gas Samples***Y. Wang, Z. Chen, V. Morah, R. J. Knabe & M. Appel*SCA2011-14 **Hysteresis of Capillary Pressure, Resistivity Index and Relative Permeability in Carbonate Rock Types***Moustafa R Dernaika, M Z Kalam, M Basoni, A Dawoud & Svein M Skjæveland***10.00 - 10:30 a.m. Coffee Break in Exhibit Areas****10.30-12:00 Noon Session 5 – Wettability & Enhanced Recovery**

Chairs:

SCA2011-15 **Changes in Wettability State Due to Waterflooding***Andrew Fogden & Evgenia Lebedeva*SCA2011-16 **Experimental Evidence of Low Salinity Water Flooding Yielding a More Oil-Wet Behavior***Sandengen, K., Tweheyo, M.T., Raphaug, M., Kjølhamar, A., Crescente, C. & Kippe, V.*SCA2011-17 **Reservoir Condition Experimental Study to investigate Microbial Enhanced Oil Recovery (MEOR) in the deep reservoir environment.***Andrew Davies, Dave Thrasher & Dave Puckett*

TUESDAY, September 20th - Continued.**12:00 Noon -1 p.m. Buffet Lunch in the Capitol Ballroom Foyer****1:00-2:30 p.m Session 6 - Pore Scale Modelling - Static & Dynamic Rock Properties**

Chairs:

SCA2011-18 Tertiary Polymer Flooding in Extra-Heavy Oil: An Investigation Using 1D and 2D Experiments, Core Scale Simulation and Pore-Scale Network Models*Bondino I., Nguyen R., Hamon G., Ormehaug P.A., Skauge A. & S. Jouenne***SCA2011-19 Pore-Scale Fingering during Viscous Oil Displacement***Shashvat Doorwar & Kishore K. Mohanty***SCA2011-20 Electrical And Petrophysical Properties Of Siliciclastic Reservoir Rocks From Pore-Scale Modeling***Karam Ali Rezaei Gomari, Carl Fredrik Berg, Alex Mock, Pål-Eric Øren, Egil Boye Petersen Jr., Alf Birger Rustad & Olivier Lopez***2:30-2:45 p.m. Coffee Break in Exhibit Areas****2:45-3:15 p.m. Exhibitor Presentations II****3:15-4:00 p.m. Poster Presentations II (SCA2011-47 through SCA2011-60)**

Chairs:

4:00-5:00 p.m. Poster Session II**WEDNESDAY, September 21st****8:00-10:00 a.m. Session 7 - Applications of NMR**

Chairs:

SCA2011-21 Pore Structure Of Vuggy Carbonates And Rate Dependent Displacement In Carbonate Rocks*Neeraj Rohilla & Dr. George J. Hirasaki***SCA2011-22 Use of a New Impedance Cell and 3D MRI to Obtain Fast and Accurate Resistivity Index Measurements from a Single Centrifuge Step***N. Bona, B. Bam, M. Pirrone & E. Rossi***SCA2011-23 Characterization of Nanoporous System with Low Field NMR: Application to Kaolinite & Smectite Clays***M. Fleury, S. Gautier, F. Norrant & E. Kohler***SCA2011-24 Magnetic Resonance Imaging of Oil Recovery During Spontaneous Imbibition from Cores with Two-Ends-Open Boundary Condition***Wickramathilaka, S., Howard, J.J., Stevens, J.C., , Morrow, N.R., Mason G., , Haugen, Å., Graue, A. & Fernø, M.A.***10:00-10:30 a.m. Coffee Break in Exhibit Areas**

WEDNESDAY, September 21st – Continued.

10:30 a.m.- 12.00 Noon Session 8 - X-Ray Imaging

Chairs:

SCA2011-25 Core Imaging Twenty Five Years of Equipment, Techniques, and Applications of X-Ray Computed Tomography (CT) for Core Analysis

J. J. Funk, E. M. Withjack, and S. Siddiqui, Sultan M. Al-Enzi & Sinan Caliskan

SCA2011-26 Combining High-Fidelity Helical Micro-Tomography with Region-of-Interest Scanning for improved Core Characterisation.

Trond K. Varslot, Andrew M. Kingston, Shane J. Latham, Jill Middleton, Mark A. Knackstedt & Adrian P. Sheppard

SCA2011-27 Dynamic X-Ray Micro-Tomography for Real Time Imaging of Drainage and Imbibition Processes at the Pore Scale

Glenn R. Myers, Andrew M. Kingston, Trond K. Varslot, Michael L. Turner & Adrian P. Sheppard.

12:00 noon. - 1 p.m. Business Lunch in the Capitol Ballroom Foyer

1:00-1:45 p.m. Exhibitor Presentations III

1:45-3:00 p.m Session 9 - Digital Core Analysis

Chairs:

SCA2011-28 A Framework to Validate Digital Rock Technology

Schembre-McCabe, R. Salazar-Tio, G. Ball & J. Kamath

SCA2011-29 Can Network Modelling Predict Multi-Phase Flow Functions?

K.S. Sorbie & A. Skauge

3:00-3:15 p.m. Coffee Break in Exhibit Areas

3:15-5:00 p.m. Session 10 - Measurement of Low Permeability

Chairs:

SCA2011-30 Porosity and Permeability Analysis on Nanoscale FIB-SEM 3D Imaging of Shale Rock

Shawn Zhang, Robert E. Klimentidis & Patrick Barthelemy

SCA2011-31 Novel Techniques to Rapidly Determine the Magnetic Anisotropy of Reservoir Rocks and Shales, and Comparisons with Permeability and Acoustic Anisotropies

David K. Potter

SCA2011-32 Permeability, Porosity and Klinkenberg coefficient determination on crushed porous media

S. Profice, D. Lasseux, Y. Jannot, N. Jebara & G. Hamon

5:00 p.m. Closing remarks

Alternate Oral Presentations with Full Manuscripts & Posters**SCA2011-33 A Multi-Physics Approach For Monitoring A Wettability Alteration On Carbonates During Aging***F. Pairoys, A., Zoukani, B., Nicot, A., Valori, F., Ali, T., Zhang, P., Ligneul & M., Akbar***SCA2011-34 Carbonated Water Flood: What We Observed In Sand Pack Experiments***Yannong Dong, Claudia Ishizawa, Ed Lewis & Birol Dindoruk***SCA2011-35 Simultaneous Determination of Relative Permeability and Capillary Pressure Curves by Assisted History Matching Several SCAL Experiments***D. Loeve, F. Wilschut, R.H. Hanea, J.G. Maas, P.M.E. van Hooff, P.J. van den Hoek, S.G. Douma & J.F.M. Van Doren***SCA2011-36 Multiscale Pore System Reconstruction And Integration***K. Wu, Z. Jiang, J. Ma, G.D., Couples, M.I.J. van Dijke & K.S. Sorbie***SCA2011-37 The Structure of Residual Oil as a Function of Wettability Using Pore-Scale Network Modelling***K.S. Sorbie, A.V. Ryazanov & M.I.J. van Dijke***SCA2011-38 Experimental and Modeling Investigation of Ion Exchange during Low Salinity Waterflooding***Aruoture Voke Omekeh, Steinar Evje, Ingrebet Fjelde & Helmer André Friis***SCA2011-39 A New Powerful Tool for Interpretation and Predicting in Reservoir Geophysics: Theoretical Modeling as Applied to Laboratory Measurements of Thermal Properties***Irina Bayuk, Yury Popov & Anton Parshin***Posters Presentations with Extended Abstracts****SCA2011-40 Freezing Procedure, the Key For a Successful Formation Evaluation Program – How to Ensure Core Samples Remain Frozen During the Entire Processing and Transportation Stage***Julien Rousseau, Francois Ollivier & Jean-Valery Garcia***SCA2011-41 Pore Pressure Evolution & Core Damage: A Computational Fluid Dynamics Approach***J. Zubizarreta, M. Byrne, M.A. Jimenez, E. Rojas, Y. Sorrentino & M.A. Velazco***SCA2011-42 A Case Study of Saturation Exponent Measurement on Some Carbonate Cores at Full Reservoir Conditions***Hamid Sharifi Galiuk, Kazem Saadat & Ezatollah Kazemzadeh***SCA2011-43 Experimental Study of CO₂ Storage in Water-flooded Oil Fields***Zhang Zubo, Luo Manli, LiuQingjie, Lu Weifeng & Fan Xiliang***SCA2011-44 Using Calorimetry Techniques For Mesoporosity Characterization***D.A. Korobkov, A.N. Nadeev & S.S. Safonov***SCA2011-45 Extraction of the Porosity & Permeability for Small Plugs***Jianlei Sun, Shameem Siddiqui & M. Rafiqul Awal***SCA2011-46 Hydromechanical Behaviour of Sands under Proportional Triaxial Compression Tests***Van Hung Nguyen, Jean Guélard, Nicolas Gland, Jérémie Dautriat & Christian David*

Poster Presentations with Extended Abstracts - Continued**SCA2011-47 Model Templates for Quantifying Permeability Controlling Paramagnetic Clay Minerals at In Situ Reservoir Temperatures***Arfan Ali & David K. Potter***SCA2011-48 Small Angle Neutron Scattering Analysis of Porous Reservoir Rocks***T. Drobek, J. Strobel, S. Park, K. L. Phuong, W. Altermann, H. Lemmel, P. Lindner & R.W. Stark***SCA2011-49 The Impact of Heterogeneity and Multi-Scale Measurements on Reservoir Characterization and STOOIP Estimations***Moustafa Dernaika, Samy Serag & M. Zubair Kalam***SCA2011-50 The Effect of Salinity and pH on Gelation Time of Polymer Gels Using Central Composite Design Method***Mahsa Baghban Salehia, Mohsen Vafaie Sefta, Asef Mousavi Moghadamb, Ahmad Dadvand Koochia & Khosrow Jarrahan***SCA2011-51 Water Evaporation from Porous Media***Lorne A. Davis, Jr.***SCA2011-52 NMR Investigation of Invasion Process of Formate Mud in Sandstone Cores***Jilin Zhang, Jinhong Chen, Arve Konrad Thorsen, Monica Constable & Nnamdi Stephen Nwaneri***SCA2011-53 Rock Typing and Permeability Prediction for Water-wet and Oil-wet Rocks***Pudji Permadi, Ivan Kurnia & Agung Budiarto***SCA2011-54 Mobilization of Residual Oil Seen In Micromodels***I. Chatzis***SCA2011-55 An Experimental Investigation Of Low Salinity Waterflooding In Berea Sandstone***Pubudu Gamage & Geoffrey Thyne***SCA2011-56 Evaluation of Low Salinity Waterflooding for 51 Fields in Wyoming***Geoffrey Thyne & Pubudu Gamage***SCA2011-57 Mineral Distribution in Reservoir Rocks and its Impact on Enhanced Oil Recovery***James J. Howard & Gary L. Lovell***SCA2011-58 A Closer Look at Shale: Representative Elementary Volume Analysis with Laboratory 3D X-ray Computed Microtomography and Nanotomography***Jeff Gelb, Allen Gu, Tiffany Fong, Luke Hunter, S.H. Lau & Wenbing Yun***SCA2011-59 Pore-Scale Micro-Ct Imaging: Cluster Size Distribution During Drainage And Imbibition***A. Georgiadis, S. Berg, G. Maitland & H. Ott***SCA2011-60 Digital Core Approach to the Effects of Clay on the Electrical Properties of Saturated Rocks Using Lattice Gas Automata***Wenzheng Yue, Guo Tao, Xiyuan Chai, Bing Xie & Hui Zou*

From the Jill Green

The SCA is working to increase our membership and attendance at our annual symposiums. This year we have advertised the symposium in several industry publications including Petrophysics, JPT Magazine, and the Offshore website. (See the example on page four of this SCANews issue.) The advertisements are encouraging attendance at our 25th Anniversary Symposium in Austin, Texas.

In celebration of our 25th Anniversary, the SCA is looking to update our logo. The designer of the winning logo will win an iPad2. The logo contest information is included at the end of this newsletter.

SCA Workshop on NMR and Unconventional Gas *Beijing, China University of Petroleum* **By Guo Tao**

The 11th International Conference on Magnetic Resonance Microscopy (ICMRM) and Joint Topic Conference on NMR in Well Logging and Core Analysis were successfully held at the China University of Petroleum during August 14-18, 2011.

218 delegates from over 20 countries attended the conference which featured 75 oral presentations and 98 poster presentations.

The Society of Core Analysts (SCA) organized the topical sessions on core analysis dedicated to unconventional oil and gas, under the local chairmanship of Professor Guo Tao - SCA China Director. The three invited SCA keynote speakers were Xu-Dong Jing (Former SCA President), Derrick Green and Marc Fleury (SCA Darcy Award Winner 2008). The SCA sessions were well attended by representatives from Chinese and international Oil & Gas industry and academia and generated lively discussions on advances and challenges in core analysis technologies. Here are two photos taken from the conference:



Announcement flyer of the joint topic conference



From left to right: Guo Tao, Xu-Dong Jing, Derrick Green, Marc Fleury and Tony Zhang

“End Point”

2011 has been an exciting year thus far and it's not over yet! Our 2011 Annual Symposium in Austin, Texas is just around the corner. Hope to see you there!

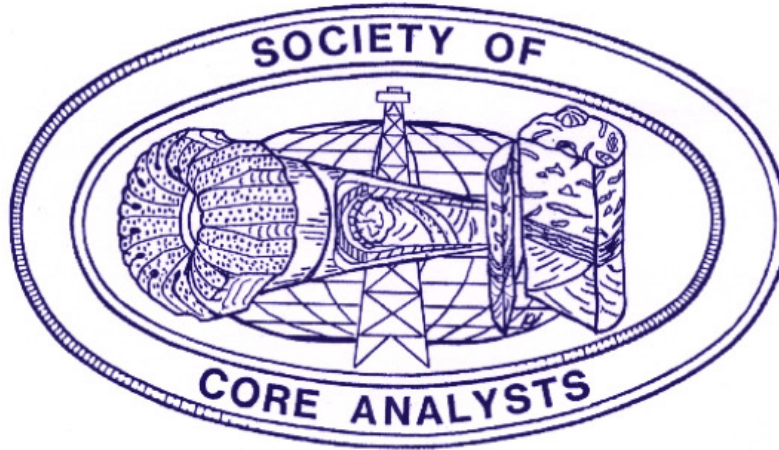
End-point is provided by your Editor for 'miscellany'. Please feel free to send in your contributions.

Visit the SCA Website for specific Symposium details and associated links.

Patrick Lasswell
VP Publications

*For advertising, rates, please contact SCA
VP Publications*

LOGO CONTEST FOR THE SOCIETY OF CORE ANALYSTS



Society of Core Analysts – 25th Year Anniversary

In celebration of our 25 years in operation, we are having a logo contest to see if we can update the SCA Logo.

Please submit your logo design to SCAStayc@aol.com before September 21st, 2011, for a chance to win an **iPad2**.

Name: _____

Company/Organization: _____

Email/Contact Information: _____