Michael D. Campbell, P.G., P.H. President

March 31, 2011

2010-11 Activities and Accomplishments

EMD management, consisting of its officers, committee chairs, and councilors, worked to implement the comprehensive business plan developed in early 2010. Subsequently modified to make the new plan less complex and hence more workable and sustainable, the EMD business plan has begun to achieve many of its objectives and has resulted in an increase in EMD membership by well over 100% in the 10 months since the new plan's initiation. This serves to integrate EMD with the AAPG membership at large. The principal accomplishments to date are summarized below:

- Significant increase in <u>EMD Membership</u> See Figures 1 and 2, below.
- Associated increase in participation of each <u>Commodity Observing Committee</u>, see Figure 3, below.
- Consolidation of AAPG EMD Commodity Committee Leadership to include Vice Chairs of Industry, Government and University and Division Representation of DEG and DPA in EMD activities,
- Increased communications with monthly <u>leadership teleconferences</u> including EMD Executive Committee, Commodity and Supporting Committee Chairs, Regional Councilors, and invited guests (AAPG standing committee representatives and staff), see Figure 4,
- Strong EMD representation at section and region meetings,
- Completion of <u>Publications</u>: Gulf Coast Coal Assessment, and CO₂ Sequestration, etc., see Figure 5,
- Multiple <u>publications in progress</u> (Shale Petroleum Reservoirs AAPG Special Publication, USGS Gulf Coast Coal Assessment, Atlas of Coal Geology, Oil Sands Geology and Sustainability of Development, Energy Minerals in the Solar System, Energy Commodity Reports),

- Significant Upgrade of EMD Web site and development of Web Portal,
- Support of sister and local societies providing technical presenters and content, and
- Numerous articles on EMD views and news in *The Delegate* and *The Explorer*:



October 2010

What the AAPG Means to Me



February 2011

EMD: Seeing Some Good News

November 2010

EMD: Tapping Into Geothermal a Hot Idea

August 2010

U.S. Shale Expertise Now Being Exported Oil Shales Making Cautious Progress

July 2010

EMD: No Dues Required

Moon Uranium Has Intriguing Implications

Calgary ICE Meeting, September, 2010

- Over 300 technical presentations were given at the successful AAPG International Conference & Exhibition (ICE), held in Calgary September 2010.
- Fran Hein (EMD Vice-President 2009-2010; Secretary 2010-2012) had a major part in the conference-organizing committee as the AAPG Energy Minerals Division (EMD) Co-Chair for the conference, with responsibility for the extensive technical program.
- EMD-sponsored sessions included a full day on unconventional energy resources, with dedicated morning and afternoon sessions on Heavy Oil/Bitumen and on the Bakken, North and South of the 49th Parallel (Canada –USA border).
- Almost 2,275 people attended the event, making it one of the most highly attended international AAPG conferences on record, second only to Perth.
- Following the ICE, the ERCB Core Research Centre in Calgary hosted the two-day CSPG Core Conference, entitled "Cutting to the Core of Our Business." Core from outside of Alberta were brought in for this conference, including core from unconventional exploration in tight oil sands of British Columbia, tight gas sands and shales of Eastern Canada and the United States, and conventional deep-water plays in

- frontier exploration areas such as the Canadian Arctic, the North Sea, Peru, the United Kingdom and Yemen.
- The Conference General Chair, John Hogg, and David Dolph, AAPG Canadian Councilor, both thanked Fran Hein for the hard work done by the EMD in making this one of the most successful AAPG ICE events in many years that focused largely on unconventional plays and resources. The great cooperation between the various local and international societies (AAPG, AAPG-EMD, AAPG-DPG, SEPM and CSPG) made this a great success.

Houston ACE Meeting, April, 2011

- Over 1,100 papers were submitted for 11 Themes of which EMD is co-sponsoring Theme 4 (Challenged Resource Frontiers), Theme 5 (Mudstones and Shales: Unlocking the Promise), and Theme 10 (Energy and Environmental Horizons), representing a total of 12 Oral and 12 Poster Sessions for a total of 89 oral and 100 poster presentations.
- The 'shale'-related Theme 5 has a significant program of 7 Oral and 5 Poster Sessions for a total of 63 oral and 60 poster presentations. One of the two 1,200- capacity rooms was secured for its Oral Sessions, the largest size available, to accommodate what is projected to be an ACE highlight.
- Theme 4 did not receive many abstract submissions, due to the ongoing 'Shale Gale' industry focus, and only resulted in a single Oral Session and but six Poster Sessions for a total of 9 oral and 40 poster presentations.
- Theme 10 has a well-balanced set of four Oral Sessions with 17 papers.
- John Hofmeister, Citizens for Affordable Energy, Washington D.D., will be speaking at the EMD luncheon which has, to date, 106 registrations in a room with 200 capacity.
- EMD is sponsoring or co-sponsoring 6 short courses, three of which, as of 7 March 2011, are certain to occur, exceeding the breakeven registration minimum, addressing Shale Petrophysics, Sequence Stratigraphy of Shales, and Uncertainty Analysis for Unconventional Plays. Application of Geomechanics in Unconventional Reservoirs, Overview of Geothermal Energy, and Hydraulic Fracturing of Shale Reservoirs, are uncertain at this date.
- EMD is co-sponsoring 2 field trips, one of which, a *Mudstone Reservoirs Field Seminar*, has sold out; the second, *Impact of Active Faults on Land-Based Engineering* is uncertain @ 67% breakeven.
- EMD is sponsoring a half-day interactive forum *Shale Plays: Technical Examination of Today's Reality and Tomorrow's Future,* involving 5 highly renowned expert panelists,

representing a spectrum of disciplines and views, in a room with 1,200 capacity.

- EMD is accelerating effort to attract students (student pairings, panel, reception, hub, EMD luncheon)
- EMD is also increasing Joint-Division Planning & Discussions.

Milan ICE Meeting, October, 2011

- Over 600 papers were submitted for 7 Themes for what will be an excellent and highly diverse technical program.
- EMD is participating in Theme VI: *Dynamic World of "Uncooperative Reservoirs" The Geoscience of Unconventional Resources* in which 5 Oral Sessions and 3 Poster Sessions were sanctioned for a total of 40 oral and 35 poster presentations.
- Theme VI secured one of the two 500-capacity rooms for its Oral Sessions, the largest size available, anticipating a strong turnout, based on the depth of it's program and revolutionary growth of global unconventional resource activity, especially in the European theater.

2010-11 Objectives

- Increase cooperation within AAPG (Divisions and Standing Committees).
- Be well-represented at section, region, and annual AAPG meetings.
- Co-sponsor additional activities with local geological societies and sister societies.
- Co-sponsor a Geoscience Technology Workshop (GTW) and/or Hedberg Conference. For example, the AAPG Canada Region will conduct a GTW at The Banff Centre in Banff, Alberta, Canada, 12-14 June 2011. The workshop theme is "Resource Plays in Tight Unconventional Reservoirs: Multi-Disciplinary Technological Challenges and Solutions". Local organizing committee is GTW Canada General Co-Chairs, Fran Hein and Ross Clark, along with AAPG Canada Region President, David Dolph, and Vice President/Treasurer, John Hogg. (GTW Canada).
- Communicate more effectively with our members (<u>quarterly e-mails to AAPG membership</u> and regular e-mails to EMD membership).
- Expand EMD Web site.

2010-11 Forward Progress

- Re-enforce guidelines established for interaction between AAPG Standing Committees and EMD Technical (Commodity) Committees
- Implementation of <u>AAPG-EMD organizational structure</u> established within full AAPG organization
- Integrate Web site Membership Profile for AAPG and AAPG Divisions
- Re-enforce EMD commodity products (Bi-Annual Reports, Advisory and Observing Committees within each Technical (Commodity) Committee, and publications.
- Continue to document EMD Progress in the EMD Website in both the <u>Public webpages</u> and in the Members' Only Webpages
- Focus on ways to involve geoscience students and their professors in AAPG-EMD activities.





EMD Membership 2010 - To Date: Total 141% Increase sInce April 1, 2010

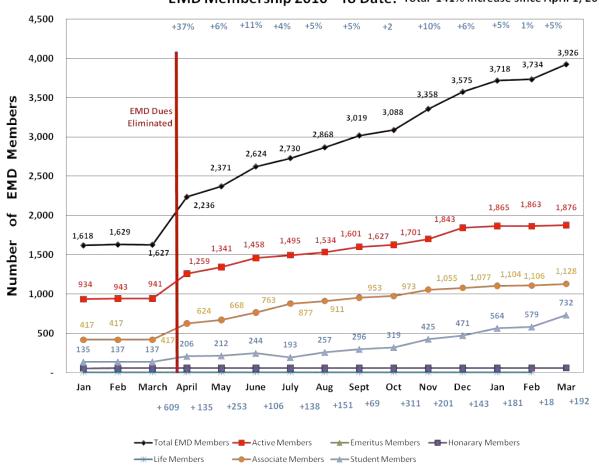


Figure 2

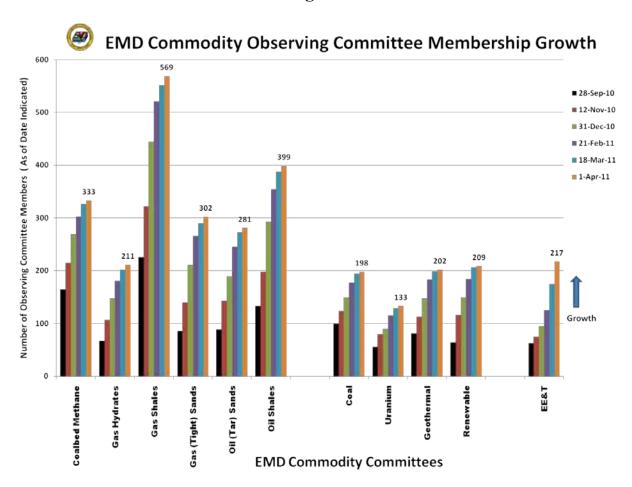


Figure 3

Figure 4

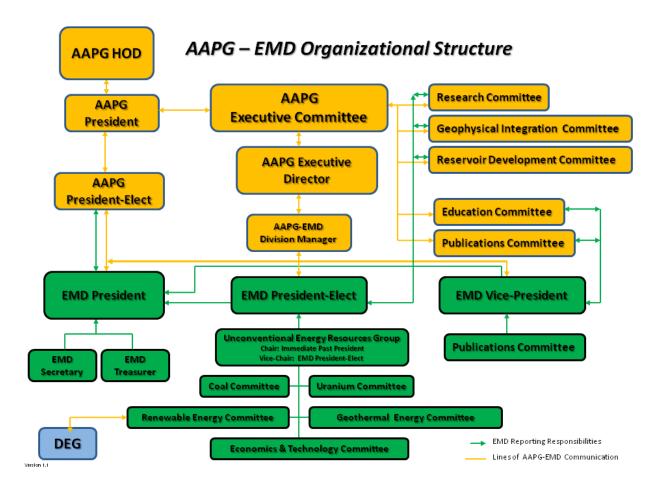


Figure 5

EMD Publications:

Energy Resources for Human Settlement in the Solar System and Earth's Future in Space

AAPG Special Publication - Print or CD - In Press: 2011

Shale Petroleum Reservoirs

AAPG Memoir 97 - Print and CD - In Press: 2011

Heavy Oil/Bitumen Petroleum Systems in Alberta & Beyond

AAPG Memoir -CD - In Press: 2011

Coal Assessment of the Gulf Coast

AAPG Studies in Geology- CD - In Press: 2011

Atlas of Coal Geology

AAPG Studies in Coal - 2nd Edition-CD - In Press: 2011

Update on Unconventional Energy Resources & Alternative Energy

(Paper in Journal of Natural Resources Research - Print - In Press: 2011

Planning Stage: Geothermal Energy in the Oil & Gas Industry - 2013?