



Advanced Resources
International, Inc.

March 2012

Advanced Resources International QUARTERLY UPDATE

Unconventional Resources • Enhanced Recovery • Carbon Sequestration

Advanced Resources'
Senior Staff:

Stephen Bumgardner

Steven M. Carpenter

Michael L. Godec

Jason A. Hummel

Jonathan R. Kelafant

George J. Koperna Jr.

Vello A. Kuuskraa

Robin Petrusak

David E. Riestenberg

Scott H. Stevens



7TH ANNUAL SOUTHEAST REGIONAL CARBON SEQUESTRATION PARTNERSHIP STAKEHOLDERS BRIEFING



Plant Barry Capture Facility Tour Group

On March 7-8th 2012 in Mobile, Alabama, Vello Kuuskraa, President of Advanced Resources International, Inc. (ARI) gave a presentation on ARI's continued characterization of regional storage opportunities in the SECARB Region entitled, "**CO₂ Storage Capacity in the Eastern Gulf Coast Portion of the SECARB Region**".

http://www.adv-res.com/pdf/03_VKuuskraa.pdf

Dave Riestenberg, Project Manager, of ARI gave a presentation on the results of detailed geologic characterization and modeling in support of the Phase III Anthropogenic Test CO₂ injection demonstration entitled, "**Geologic Characterization and Baseline Injection Modeling**".

http://www.adv-res.com/pdf/12_DRiestenberg.pdf

George Koperna, Vice President of ARI gave a presentation on the permitting, monitoring and upcoming schedule for the Anthropogenic Test entitled, "**Permitting and Injection Status**".

http://www.adv-res.com/pdf/13_GKoperna.pdf

Steve Bumgardner, Project Manager of ARI and staff from Denbury Onshore, LLC led a field trip to the Anthropogenic Test CO₂ injection site.

http://www.secarbon.org/index.php?page_id=16



KUWAIT ON CO2 ENHANCED OIL RECOVERY AND CARBON CAPTURE AND STORAGE

On February 7, 2012, Michael L. Godec, a Vice President with Advanced Resources International, made a presentation, entitled “**From CO2-EOR to CCS: Prospects and Challenges of Combining CO2-EOR with Storage**” at an International Energy Agency (IEA) and Organization of Petroleum Exporting Countries (OPEC) jointly sponsored workshop in Kuwait City, Kuwait on CO2 enhanced oil recovery and carbon capture and storage. The workshop was attended by representatives from OPEC-member countries Algeria, Ecuador, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates, along with attendees and speakers from the U.S., Canada, Norway, Netherlands, and Great Britain.

http://www.iea.org/work/workshopdetail.asp?WS_ID=553



2012 CARBON MANAGEMENT TECHNOLOGY CONFERENCE

At the 2012 Carbon Management Technology Conference, held in Orlando, FL from February 7 - 9 George Koperna, Vice President with Advanced Resources International, Inc, delivered two presentations. The first was entitled, “**The SECARB Anthropogenic Test: The First U.S. Integrated CO2 Capture, Transportation and Storage Test**”, which provided a detailed update of this USDOE-NETL funded large-scale carbon capture and storage demonstration project. Subsequently, Mr. Koperna participated in a panel discussion, discussing the “**Prospects and Challenges of Combining CO2-EOR with Storage**”.

http://www.adv-res.com/pdf/CMTC_Citronelle_Presentation_SP020612_FINAL.pdf

http://www.adv-res.com/pdf/CMTC_From_CO2-EOR_to_CCS_SP020712_FINAL.pdf



PUBLIC OUTREACH MEETING FOR THE SECARB PHASE III ANTHROPOGENIC TEST CO2 INJECTION DEMONSTRATION IN CITRONELLE, ALABAMA

On January 17, 2012, George Koperna, Vice President, and Dave Riestenberg, Project Manager, both of Advanced Resources International, Inc., along with staff from the Electric Power Research Institute (EPRI), the Southern States Energy Board (SSEB) and Denbury Onshore, LLC led a public outreach meeting for the SECARB Phase III Anthropogenic Test CO2 injection demonstration in Citronelle Alabama. This event was hosted by Mayor Loretta Presnell at the Citronelle City Hall and was attended by about 20 local residents. The meeting presented an industry perspective on the need for CO2 geologic storage and how the project would safely inject and store CO2 captured from a coal-fired power plant on Denbury's property.

<http://www.secarb-ed.org/news.php>



ENERGY MINERAL LAW FOUNDATION

The publication of the 32nd Annual Institute of EMLF has just been released. Mr. Steve Carpenter, Vice President with Advanced Resources International, Inc., is the co-author, with attorneys from the firm of Bowles, Rice, McDavid, Graff & Love, Charlestown, WV, of Chapter 23: Carbon Sequestration: Critical Property Rights and Legal Liabilities — Real Impediments or Red Herrings? The Proceedings are a two-volume set of legal publications citing all the work that the Foundation completed during the previous year.

http://www.adv-res.com/pdf/EMLF_2011_Annual_Institute.pdf

http://www.adv-res.com/pdf/32nd_Annual_Institute_of_EMLF_Vol_2_-_FINAL_Chapter_23.pdf

<http://www.emlf.org/Content/nemacolin.aspx#Program>



IPAC-CO2 GEOLOGICAL STORAGE OF CARBON DIOXIDE STANDARD

Steve Carpenter, Vice President with Advanced Resources International, Inc. (ARI), also a voting member of the technical committee will participate in the final review of the standard this April in Calgary. The public comment period concluded and the committee has reviewed and edited the comments received and will plan on a full committee vote this spring. It is intended that the Standard will be approved and forwarded to the International Standards Organization (IOS) for adoption sometime in 2012 or 2013. Mr. Carpenter will remain in the technical committee through the ISO process and is involved with the establishment of additional committees (e.g. transportation) to evaluate the possibility of creating additional international standards under ISO related to CCS.

<http://www.ipac-co2.com/projects/co2-standards>

<http://www.ipac-co2.com/projects/co2-standards/148-about>

<http://www.ipac-co2.com/projects/co2-standards/technical-committee>



COMET3 RESERVOIR SIMULATOR

Advanced Resources' COMET3 reservoir simulator for coalbed methane (CBM) and gas shale reservoirs was the first of its' kind in the marketplace, the initial version having been developed in the early 1980's when both resources combined contributed less than 1% to U.S. gas supply. Since then it has remained the industry-standard reservoir simulator for these reservoir types. Advanced technical features include:

- A triple-porosity/dual-permeability option for certain gas shale and coalbed methane (CBM) reservoirs
- Multi-component sorption for enhanced coalbed methane (ECBM) recovery and carbon sequestration (CO2 sequestration) applications
- A robust permeability model

A COMET3 brochure, as well as technical papers describing the model theories, and model testing and benchmarking studies, can be downloaded via the links below.

[Download COMET3 Brochure](#)

http://www.adv-res.com/pdf/COMET3_Brochure_MAY_08.pdf



UPCOMING EVENTS

AAPG 2012 Annual Convention & Exhibition

April 22-25, 2012

Book Rooms through the AAPG Housing Bureau
Long Beach, California

www.aapg.org/longbeach2012

Unconventional: The New Standard

April 23-25, 2012

Fort Worth Convention Center
Fort Worth, TX

<http://www.dugconference.com/>

OTC 2012

April 30 – May 3, 2012

Book Rooms through OTC's Housing Provider

Houston, TX
www.otcnet.org/2012

11th Annual Conference on Carbon Capture Utilization & Sequestration

April 30 - May 3, 2012
David L. Lawrence Convention Center
Pittsburgh, Pennsylvania
<http://www.carbonsq.com/>

SPE Unconventional Resources Conference

June 5-7, 2012
David L. Lawrence Convention Center
Pittsburgh, Pennsylvania
<http://www.spe.org/events/urc/2012/>

EMLF 33rd Annual Institute

June 24-26, 2012
The Charleston Place Hotel
Charleston, SC
<http://www.emlf.org/>

Coal-Gen Conference & Exhibition

Kentucky International Convention Center
August 14-17, 2012
Louisville, KY
<http://www.coal-gen.com/index/registration.html>

**Carbon Storage R&D Project Review Meeting
Developing the Technologies and Building the
Infrastructure for CO2 Storage**

U.S. Department of Energy
The National Energy Technology Laboratory
August 21-23, 2012
Sheraton Station Square, Pittsburgh, PA
<http://netldev.netl.doe.gov/business/event-all>

For a complete list of industry news, recent white papers and case studies please visit our website www.adv-res.com or contact one of our offices:

Washington, DC

4501 Fairfax Drive, Suite 910
Arlington, VA 22203-1659
Phone: 703.528.8420
Fax: 703.528.0439

Houston, TX

11931 Wickchester Ln, Suite 200
Houston, TX 77043-4547
Phone: 281.558.9200
Fax: 281.558.9202

Knoxville, TN

603 W. Main Street, Suite 906
Knoxville, TN 37902-2613
Phone: 865.541.4690
Fax: 865.541.4688

Cincinnati, OH

1282 Secretariat Court
Batavia, OH 45103
Phone: 513.460.0360