School of Energy Resources
University of Wyoming

Coal Bed Natural Gas Center
University of Wyoming

SECONDARY BIOGENIC

Coal Bed Natural Gas International Conference

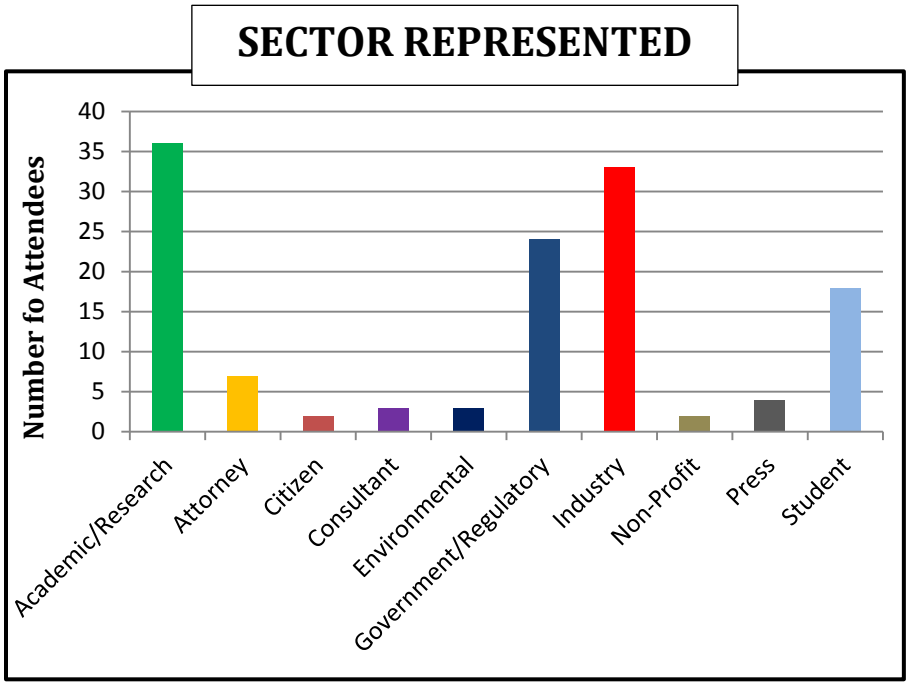
University of Wyoming

SUMMARY REPORT

The Secondary Biogenic Coal Bed Natural Gas International Conference, held on June 18-21, 2012 in Laramie, Wyoming, convened scholars, scientists, regulators, industry representatives, policy makers, and the public to both learn and share their knowledge and experience in producing natural gas using indigenous microorganisms. Hosted by the University of Wyoming's Center for Biogenic Natural Gas Research and the University of Wyoming's School of Energy Resources, the event was the first of its kind to be hosted in the region focusing on the emerging field of biogenic natural gas production. The initial two days of the conference consisted of a field tour to the Powder River Basin in northeastern Wyoming to visit research and development sites for biogenic coal bed natural gas (CBNG) projects. The latter two days of the conference consisted of 26 platform and poster presentations in seven targeted sessions held at the University of Wyoming Conference Center.

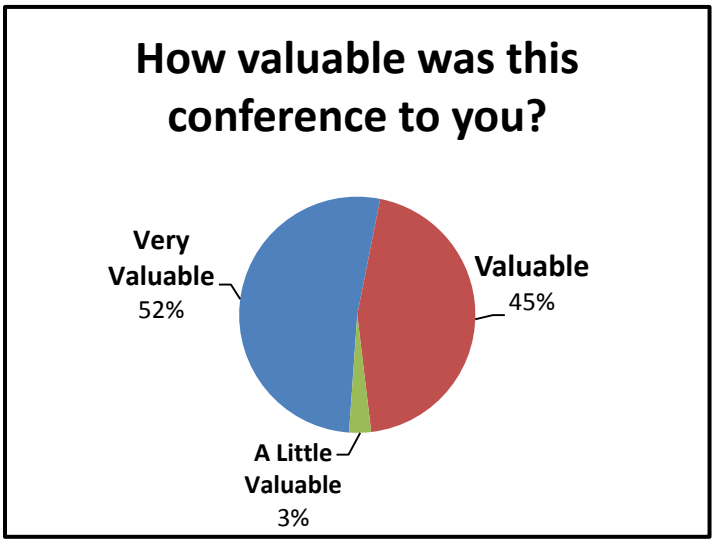
Conference attendance totaled 132 participants from ten states and five international countries. Of the seven international attendees participating in the conference, four presented their research and development experiences with biogenic CBNG in global applications. Among the international participants were researchers and industry representatives from India, Japan, Indonesia, Australia, and Canada.

The responsible development of biogenic CBNG requires a range of informed stakeholders. There were a total of nine sectors represented at the conference with the majority (27%) of participants representing the academic and research fields. The second largest sector represented at the conference was industry representatives at 25% followed by government and regulatory representatives at 18%. Student participation was strong at the conference making up 14% of the attendees. The remaining sectors represented at the conference included lawyers, the public, consultants, non-profits, and environmental organizations.



The conference field tour provided an opportunity for participants to visit several secondary biogenic coal bed methane (CBM) R&D projects in the Powder River Basin of northeastern Wyoming. Participants on the field tour included scientists from several different biogenic development companies, students, professors, engineers, citizens, and attorneys. The first stop on the tour was the Tongue River Project Area, the first production scale demonstration project constructed by Luca Technologies. The next stop on the tour was the Sheridan County Museum where museum staff guided the group through the Powder River Basin's historic development of Wyoming's coal resource. The third stop on the tour was a CBM wastewater treatment facility followed by a tour of the Wyodak Coal Mine, a surface coal mine near Gillette, Wyoming. The tour completed with a tour of the Gillette operations office of Luca Technologies where participants observed the labs and an above-ground development project.

Post conference surveys were administered upon the closing of the conference on June 21, 2012. The survey consisted of 13 questions, with eight multiple choice and six open ended response questions. A total of 58 surveys were completed. Inquiring whether the conference was valuable to the participant, the majority 30/58 or 52% said the conference was "valuable" followed closely by "very valuable" at 26/58 respondents or 45%. Only two respondents (3%) claimed the conference was "a little valuable" and no survey respondents felt the conference was "not valuable" or had "no opinion."



The post conference survey also asked attendees to share their thoughts about the event. Here are a few quotes from attendees:

The most important thing I learned from this conference was…

"…the opportunities and challenges associated with secondary biogenic CBM production."

"…the basic processes related to secondary biogenic gas production, economics and regulatory discussions."

"…the number of different organizations working and doing research in this field."

"…the viability and likelihood of commercial development of secondary biogenic CBNG and feasibility to implement the technology with existing infrastructure."

What did you like most about the conference?

"Diversity of content" *"Networking opportunities"* *"Organization"*

"Interaction of different disciplines" *"Diversity of presenters and attendees"*

"Very informative, excellence range of research presented" *"Field tour was excellent!"*

What do you think the future holds for secondary biogenic CBNG?

"Once gas prices come back up and the regulatory framework gets worked out, I think it will be a significant source of energy."

"Its promising in the sense that there is a wide variety of techniques that can be applied, however, I think more research is needed in order to translate lab results to field operations."