

## SME Annual Meeting Report

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The SME Annual Meeting was a very influential experience for me, and I couldn't be happier to have had the experience of attending it. On the first day of the conference, Jared, Weston, Kendra and I first registered as student member attendees, and then spoke with Ms. Mona Vandervoort about the events taking place over the three days we would be in Denver. She highly recommended attending the Student Board Subcommittee, so we attended that meeting right away in the afternoon. During the student board meeting we learned a lot of information regarding how many of the other SME Student Chapters across the country are run. It was very beneficial listening to the student officers for some of the most successful student chapters, including schools such as Kentucky, Arizona, and Virginia. We learned information about how to recruit new students, how to hold effective meetings and how to most efficiently get the word out across the university concerning each scheduled meeting. We also learned about each of the student chapters' systems for keeping returning members each year, including point systems and reward systems for the most active members. I found it most interesting how each of the Student Chapters firmly believed in continuing to grow SME, and I hope that Jared, Weston, Kendra and I will use what we have learned to keep the University of Minnesota Student Chapter alive and well for future student members at Minnesota.

On day two of the conference, the first event we attended was the Keynote Plenary Session early in the morning. The Keynote Session consisted of five panelists, each giving a lecture on their specific topic of interest or profession, and a moderator who ran a question/answer/debate section following the speakers. The first speaker was Dean Gehring, the President and CEO of Rio Tinto Minerals. I found his lecture very interesting, especially in regards to his section about the importance of Real-Time Monitoring in the mining industry. The next speaker was Red Conger, the president of Freeport McMoRan Inc. He lectured on the sustainable development approach to mining, and the main takeaway I had was how the mines of the future will be made, not found. He discussed the importance of mines to comply with safety standards, and to build off the successes of past accomplishments. The next speaker was Bryan Galli, the Group Executive and Chief Marketing Officer of Peabody Energy. He discussed the importance of sustainable mining – how it should be safe, productive, and supporting of the communities near the industry. Bryan explained how the goal should be to leave the land equal to, or better than pre-development, and that his company's main goal is to have near zero emissions, with the cleanest coal production possible. The fourth speaker was Barry Hudson, the Director of Aggregates Northern Europe – HeidelbergCement. I found his talk to be the most interesting, mainly because I've had very little experience with aggregate mining. He explained how the sand and gravel reserves of today are depleting, and that the main goals should be to increase biodiversity, the reduction of low volume materials, and to encourage recycling in the mining community. The final speaker was Gwenne Henricks, the Vice President of Product Development and Global Technology and CTO of Caterpillar Inc. Her main points of emphasis were on the mining equipment of today and of the future, and how incremental changes in equipment are crucial to keeping the productivity, safety, and reliability of the mining industry

up to the standards of society. Overall, I thought the Keynote Session was highly thought-provoking, and definitely taught me a lot about the mining community.

During the afternoon of the second day we visited the Exhibit Hall. There were way more booths than I expected, and after being overwhelmed at first I ended up learning a lot about the different companies in attendance. I personally attended about 20 exhibits, and I dropped off the SME Public Awareness Campaign cards at 15 booths. Most of the people I talked with thought what we were doing was great, and were happy encouraging others to pick up the cards on the awareness video. One of the companies I remember in particular was Barr Engineering because the guy I spoke with was a chemical engineering graduate from the University of Minnesota. We discussed the 'Responsible Mining' case studies book promoted by Barr, as well as how I was from the SME Student Chapter of Minnesota. He gladly accepted the awareness cards, and thought we were doing a good job spreading the importance of mining. Another company that sticks out in my mind was the Goldcorp exhibit. I found their company to be very interesting, and I even talked with them about their possible job openings in Geotechnical Engineering – my field of study. The following is the total list of companies that I visited: - Drill Tech, Drilling & Shoring, Inc. – Hard Rock Consulting, LLC – Goldcorp – Bureau of Land Management – American Mining Insurance Group – Tencate Geotube – Energold Drilling Corporation – Soldata – The Reinforced Earth Company – Barr Engineering – Jenmar – Starkey & Associates – Koppern – Komatsu Mining – Carlson Machine Control.

On our final day in Denver we attended several technical paper lectures. The first of these was "The Value of Good Hydraulic Conductivity Data for Mining Industry Groundwater Flow Models" by Matt Gozdor of Geosyntec Consultants. I found it very informative, and it turned out that much of it applied to several classes I have taken, including Groundwater Mechanics, and Computer Applications. The second technical paper attended was "Shale Gas Recovery Modelling of Heterogeneous Systems" by Dr. Deliana Gabeva from DG Consultancy in Australia. Honestly, this lecture I found to be very complicated, and I struggled following the technical details of the modeling. However, it was still very stimulating and taught me a lot about the extraction of natural gas in organic shales. The third and fourth technical papers we attended were very similar. First, we listened to "A Geological Overview of Frac Sand in the United States" by Mary Benson of the U.S. Geological Survey, and second we listened to "Where in the United States is the naturally occurring Frac Sand?" by Anna Wilson, also from the U.S.G.S. Both of these lectures were very informative, since I already had a background on the fracking industry in the United States. Being from Minnesota, it was also remarkable being able to relate to the fact that much of the prominent 'ideal' frac sand is found near us in the Midwest.

Attending the Friends of Minnesota Reception was an excellent way to end our trip in Denver. It was great hearing from all the SME TC members, and it was a pleasure to thank them for sponsoring our organization. I can't thank everyone enough who was involved with getting the student chapter going again. It has been an amazing experience, and I look forward to seeing what the future of the SME University of Minnesota chapter holds.