



Department of Mining Engineering

BLACK DIAMONDS WV

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West Virginia University
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Michael J. Quillen, Presented William Poundstone Lecture: "Fast Company: Sustaining a Business Model in the Rapidly Changing World of Coal Mining"

On November 15th, Michael J. Quillen, presented the William Poundstone Lecture titled: "Fast Company: Sustaining a Business Model in the Rapidly Changing World of Coal Mining". Mr. Quillen is presently chairman and CEO of Alpha Natural Resources and has more than 35 years of experience in the coal industry. He received his B.S. and M.S. degrees in Civil Engineering from Virginia Polytechnic Institute, and is a Registered Professional Engineer. Prior to joining Alpha Natural Resources in 2002 and becoming CEO in 2003, he held executive positions with American Metals and Coal International (AMCI), Pittston Coal, NERCO Coal and AMVEST Corporation.

In his presentation, Mike stated that a fast company needs to be flexible and adaptive. He has seen a lot of change in the industry in his career, but today, the industry is seeing even more change. For instance,

Alpha Natural Resources holdings was formed in 2002. In December of that year they acquired Pittston Coal. In January of '03, they acquired Coastal Coal and in March they acquired AMCI. In 2005, they went public with the best performing IPO that quarter. In a little over 3 years, they had put together a high quality, high revenue reserve and a company with 24.3 M tons per year production (#10 in U.S.). Their reserve base was 598 M tons which was: 66% steam and 34% metallurgical, 81% from Central App and 19% from Northern App., 82% less than 1.5% sulfur and 80% greater than 12,500 BTU/lb. Their production comes 44% from WV,

33% from VA, 14% from PA and 9% from KY. In West Virginia alone their payroll is over \$90 million.

Mr. Quillen also sees quite a few challenges for the coal industry. 1) There are competing fuels, but not

(See Quillen, Page 2)



Michael Quillen, chairman and CEO of Alpha Natural Resources.

Visiting Committee Met to Discuss:

Adequacy of the current Mining Engineering facilities, student recruiting program...

The Visiting Committee for the Department of Mining Engineering met on November 16, 2007. Committee members who participated included Jim Boyd, Barry Dangerfield, Gary Hartsog, Jim Laurita, John Murphy, Ron Stovash, and Stan Suboleski. Several observations and recommendations were shared by the Committee.

The new Capital Campaign for the College was described, and should offer exciting opportunities to address current and future needs of the Department. The Committee discussed areas that should be addressed during the campaign, such as the adequacy of the current Mining Engineering facilities, such as the

Design Laboratory, for expanding class sizes, the student recruitment program, support for student enrichment opportunities, and the hiring of new faculty members.

To assist the Department in assessing future needs, it was suggested that a survey of current and recent graduates (less than 10 years out) may be beneficial. It was suggested that an on-line survey tool should be used, since the proposed recipients of the survey are more likely to respond to this type of inquiry.

(See Visiting Committee, Page 2)

(Quillen, from Page 1)

any real good alternatives to the 50% of electric generation from coal, with coal being \$2/MBTU and natural gas being \$7/MBTU. 2) Productivity has been dropping since 2000 and costs have gone up, although the price of coal has also risen from \$27/ton in 2004 to \$46/ton in 2007. 3) Safety is a challenge, although the public perception is not accurate after the Sago, Aracoma, Darby and Crandall Canyon tragedies. Overall, since 1970, coal production has risen 89% and fatalities have dropped 83%. Also, there has been a 56% drop in injuries in the last 16 years. 4) Finding the next generation of coal miners will be difficult. It is estimated that the industry will need 50,000 new miners in the next 10 years. Young engineers will move up faster than any generation in the past. As a young engineer, you should work some in production. It is the best way to learn the business. People skills will also be important, since most young engineers will be moving into management. 5) The industry faces mounting regulatory burdens. Eleven federal laws govern coal operations. Recently, it took 3 years and \$1 M dollars to permit a surface mine. However, through cooperation much can be achieved. For instance, Alpha completed 15 miles of the earth moving for the King Coal Highway and saved tax payers 50% of the cost. 6) The global warming debate is a challenge for the coal industry. In 2030, U.S. energy consumption is expected to be up 20-30%,

world wide energy consumption is expected to be up 50%. We need qualified engineers to address these problems with due consideration of the economics. Carbon sequestration needs to be implemented. Coal-to-Liquid and Coal-to-Gas conversions need to be perfected.

In closing, Mike Quillen presented his challenge to the young mining engineers. They will need to take what they know, analyze the problems, and make the tough decisions, and they will not be easy decisions. Good managers make tough decisions every day and one very important decision is to know who to trust with helping you make decisions.

Finally, Mike advised that the students should focus on their strengths, be people people and good luck in their new careers.



Alumni and students attended the Poundstone lecture given by Michael Quillen.



Michael Quillen received Poundstone Lecture glass award from Dr. Christopher Bise.

(Visiting Committee, from Page 1)

The Committee was pleased to learn that the interest in the program continues to increase, with the number of declared and prospective students (including freshmen) increasing from 70 to 95 in just one year. It was noted that more emphasis will be a needed on out-of-state recruiting, because of the changing demographics in West Virginia. The Committee was pleased to learn that a Reciprocity Agreement has been established with Ohio so that mining-engineering undergraduates can now enroll at WVU for in-

state tuition. In addition, the Academic Common Market makes recruitment from other southern states much easier and helps to attract quality students to WVU. The Committee met with Bill Ryan, off-campus recruiter for the Department, and commended him for his efforts.

In summary, the Committee believes that the increased interest in mining engineering and the success of the Department can be attributed to:

- The Department's well-designed recruiting program,

- A well-endowed scholarship program, providing funds in excess of \$2,000 per year to worthy students,
- Summer employment for all students, providing them with exceptional income opportunities,
- Impressive starting salaries and bonuses,
- Society's increased awareness of the mining industry, and the needs and opportunities for qualified professionals.

The Mining Engineering Visiting Committee members and faculty able to participate were, left to right, James Laurita, Ron Stovash, Christopher Bise, Keith Heasley, Barry Dangerfield, Gary Hartsog (not in photo), Stan Suboleski, Felicia Peng, John Murphy (Chair), Wahab Khair, and Jim Boyd (not in the photo).



Dr. Syd Peng Inducted into National Academy of Engineering Class of 2007

The Induction Ceremony for the National Academy of Engineering (NAE) class of 2007 was on Sunday, September 30, 2007. Dr. Syd S. Peng participated in the NAE 2007 Annual meeting in Washington D. C., where he received his NAE membership certificate. The photo shows Dr. Peng receiving the membership certificate from Dr. Craig R. Barrett (left), and Dr. Charles M. Vest (right). Craig Barrett is Chairman of the Board of NAE and he is also Chairman of Intel. Charles Vest is President of NAE and a 1960s WVU MAE BS graduate. The Election Citation for Dr. Peng

reads, "For leadership in the development of advanced longwall-mining and ground-subsidence-control technologies." The National Academy of Engineering is organized in twelve sections representing broad engineering categories. As a mining engineer, Dr. Peng's primary membership section affiliates with Earth Resources Engineering. The scope of the section is "Engineering applied to the discovery, development and environmentally responsible production of non-renewable earth resources."

Robin Oldham Received 2007 SME-Pittsburgh Section Student Grant Award



Robin Oldham, a senior in Mining Engineering at WVU, received the 2007 Pittsburgh Section Student Grant Award at a joint meeting of the PCMIA and SME-Pittsburgh Section at

Southpointe in Canonsburg, Pa., on October 25-26, 2007. Robin is active in the WVU SME Student Chapter and was elected secretary of the chapter for 2007-2008. He was a founding member of the WVU chapter of the Sigma Alpha Epsilon fraternity, where he was the risk management chair in 2006. Robin spent two summer internships working in underground mines for CONSOL Energy in Pa. This past summer, he worked for Newmont Mining Corporation at a gold mine in Nevada. He plans to graduate in May 2008.

Stephen Tadolini Recipient of 2007 SME-Pittsburgh Section Distinguished Member Award

Stephen Tadolini, is the chief of the Rock Safety Engineering Branch at the National Institute for Occupational Safety and Health (NIOSH), Pittsburgh Research Laboratory in Pittsburgh, Pa. Dr. Tadolini received the 2007 SME-Pittsburgh Section Distinguished Member Award at the joint meeting of PCMIA and SME-Pittsburgh Section on October, 25-26, 2007. Dr. Tadolini received a B.S. degree in CE and EE, an M.S. degree in CE and Geotechnical Engineering, Rock Mechanics from the University of Colorado and a Ph.D. in Mining Engineering from WVU. Dr. Tadolini has over 28

years of experiences in mining and ground control and management. Stephen is a 27-year member of the Society for Mining, Metallurgy and Exploration, Inc., a member of Colorado Mining Association, and a member of the American Rock Mechanics Association. He has also served on numerous committees for the International Ground Control Conference and currently serves as a co-chairman on The Publication Committee of SME, the ASTM Committee on Standard Specifications for Roof and Rock Bolt Accessories and on the American Mining Congress. Dr.

Alumni News

Benjamin M. Statler (BSEM, '73) and his wife, Bonnie Jo "Jo" Statler, made the single largest gift to WVU. They donated \$25 million to fund breast cancer care and other health programs, along with additional programs at the WVU College of Engineering and Mineral Resources. Ben Statler spent most his career with Consolidation Coal Co. He became senior vice president of mining for CONSOL in 1966. In 2003 Benjamin M. Statler LLC and Questor Management acquired the assets of U.S. Steel Mining Co., and founded PinnOak Resources LLC. He served as president and chief executive officer of the company until he sold it in 2007. Mr. Statler currently serves as a member of the Mining Engineering Visiting Committee. He was also elected Distinguished EM Alumni in the Spring of 2004 and, in 2007, received the Most Loyal West Virginian award.



Richard M. Whiting (BSEM, '77) is President and Chief Executive Officer of Patriot Coal Corporation. He was the former Executive Vice President, Chief Marketing Officer, President and Chief Operating Officer of Peabody Energy. Mr. Whiting is a member of the Society of SME Foundation Board of Trustees. He was also elected as Distinguished EM Alumni in Fall 2002. Patriot Coal Corporation is a leading producer and marketer of coal in the Eastern United States, with eight company-operated mines, two joint venture mines and numerous contractor-operated mines in Appalachian and the Illinois Basin. The company ships to electric utilities, industrial users and metallurgical coal customers. Patriot Coal has annual sales of 2.6 million tons, and controls approximately 1.2 billion tons of proven and probable coal reserves.



Why Not a Career in Mining Machinery? Part 2

by Joseph J. Larry, BSEM '52

Note from editor: Joseph J. Larry's article will be published in 2007 Spring and Fall issues of *Black Diamonds*. This issue has the second part of his article.

Early in my tenure with Lee-Norse Co., Chief Arentzen, president and founder of the Lee-Norse Company received a letter from Acel Garland, vice-president of Island Creek Coal Company. To paraphrase the letter, it said that it had a tract of land with coal reserves X-miles wide by Y-miles long in Buchanan County, VA. The tract contained the Pocahontas No. 3 seam, 60 inches high, 1200 feet below the valley floor with a thick massive sandstone strata located 80 feet above the coal bed. The coal seam was highly gaseous. The tract, later to be called Beatrice Pocahontas Coal Company, was one of about six tracts that Island Creek would eventually mine. Island Creek had acquired the property when it bought the Red Jacket Coal Company. The Buchanan County coal seams below drainage had never been mined. Mining in the Pocahontas No. 3 seam was a new experience and a new endeavor.

The letter asked that Lee-Norse Company recommend a method of mining. I assume a similar letter was sent to other manufacturers for their recommendations. The Chief said, "Joe, you are the mining engineer, you write the recommendations and the report." Now I could use all of the technical expertise that I had been taught at WVU. I researched a number of mining concepts; then zeroed in on Charles Holland's "Pressure-Arch Theory". I laid out the projections from the skip shaft. The main entries consisted of four (4) sets of five entries each. The two inside entries carried the intake ventilation; the two outside sets were the returns. The entries were 18 feet wide on 100-foot centers: the breakthroughs were on 75-foot centers. The return air entries were separated from the intake entries by 200-foot wide by 200-foot long barrier pillars. I pinpointed the location of the three shafts-the skip/manpower, the intake air and the return air-along the valley floor.

I recommended that the seam be mined with Lee-Norse continuous miners, Joy shuttle cars, Galis roof bolting machines S&S battery scoops and Lee-Norse rail transportation equipment. The coal was to be conveyed by belt conveyors to the skip shaft. I had considered, briefly, the use of the longwall mining concept to mine the seam. The massive sandstone strata, 80 ft above the seam, was conducive to the longwall system. At that time, longwall was in its infancy in the United States; one or two were operating and not too successfully. The opening of a virgin coal seam in

Buchanan County was a risky undertaking without introducing a yet-to-be proven mining method in the USA longwall system.

We submitted the report complete with mine projections, face production layouts, machine specifications and costs of the equipment. The Beatrice Pocahontas mine (B-P) was opened using the same projection that I had recommended. There was one exception: B-P used 90-foot centers instead of my recommended 75-foot. Island Creek never openly admitted that it had used my recommendations. The next five mines were opened using similar projections and equipment. My esteem and pride sky-rocketed! My service personnel, my sales representatives and I spent many of the ensuing months at the Buchanan County mines in assisting management and maintenance in programs to increase the efficiency of the production machines. The Island Creek organization gave us a lot of leeway and respect to implement the programs we wanted. Those were wonderful times!

In 1970 I moved into the Charleroi, PA Headquarters as marketing manager. Ingersoll-Rand (I-R) had purchased the Lee-Norse Company and installed a new president who came from I-R oil field division. He wanted to diversify the product line. I learned that the president of Manson Roof Drilling Company, Taylorville, IL was interested in selling the company. I set-up and had several meetings with the Manson president. I always advised the L-N president of the progress of these negotiations. I conducted interviews with mining managers who had experience with the Manson bolters. Although not as rugged as the Galis bolter it met the criteria. I wrote the justification report with the recommendation to buy the company. After getting the approval of my president, I negotiated the purchase price with Manson. We sealed it with a handshake. Later, the legal team came in to officially close the deal.

Lee-Norse Company had developed its first fixed-head Miner, the Norse 10, and installed it in an Illinois coal mine. The Miner was penetrating into the coal face at only several inches per minute, entirely unsatisfactory. Our vice-president of engineering thought it was underpowered and ready to pull the Miner from the mine. The president asked me to go out to make an observation. Sure enough, when I went underground, the Miner seemed to be "gnawing"

at the coal face. I called in an expert on bit lacing. We pulled the cutter heads and repositioned the bit blocks to give a better cutting pattern. That did the trick! The Miner began to increase its rate of penetration to the projected rate and the trailing cable cooled down. I moved to the FMC Corporation, mining division, as sales manager and later as chief sales officer. The division manufactured roof bolting machines, shuttle cars and rail transportation units. FMC was a multinational corporation with headquarters in Chicago, IL.

In 1974, Poland extended an offering for FMC to market Polish longwall equipment in the USA. Since FMC conducted a sizable trade market in food machinery with Poland, the Vice Chairman sent a team of three engineers, including me, to Poland to evaluate Poland's request. In Poland, the Minister of Mines controls the industry including the coal and mineral mines, the mining machinery manufacturers and the service organizations, such as shaft sinking, mine safety, et al. We went underground at several mines and visited the factories. I liked what I saw and wrote a positive report. The USSR heard about the endeavor and extended the same invitation. Since FMC did considerable sales with the USSR, too, I, and two other engineers toured the Russian mines and factories on a similar mission. When I came back, I reported that I liked the Polish equipment better. The Vice Chairman said, "Go back to Poland and see if you still feel the same". I did, and I still liked the Polish equipment. I felt that the Polish mining engineers were professional with a dedicated mindset for the mining industry and their country. The country had just come out from under Russian domination. The Polish mining industry had made great progress in those few years.

It was funny! In my high school years I had spent Saturday nights in a McDowell County mining town at the local ice cream parlor watching the cars parade on U. S. highway Route 52. Now, I was spending my Saturday nights in Warsaw, Moscow, Essen, Vienna and London. This was the time of the mid-east oil crisis. Our division was filled with new orders for our equipment. The Polish longwall question was placed on the back burner. The Polish longwall question came up again in 1978. This time I thought it would happen. The president of my division, the manager of engineering and I went to Poland

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Dr. Syd Peng Teaches Ground Control Failure Course in Australia

From August 16 to 20, 2007, Dr. Syd Peng taught three separate two-day courses on the subject of ground control failure in Brisbane and Sydney, Australia. The short course presented case studies of pillar failures, roof failures, gutters, roof bolting failures, flooring heave, multiple-seam mining, and flooding in both longwall and room-and-pillar mining. A total of about 70 mine operators and consultants attended in three separated short courses. They were very interested in this course because many cases and solutions described in the short course can be applied to Australian coal mines. One thing Dr. Peng noticed was that in Australian mines, many geotechnical engineers are working in design improvement in longwall. In New South Wales and Queensland areas, the subsidence issues are serious, and there is a growing focus on subsidence.



Dr. Peng with course participants in Brisbane



Dr. Peng with second session participants



Dr. Peng and participants in Sydney

Calendar of Events

- April 13** Mineral Resources Alumni Award Banquet, Lakeview Resort, Morgantown, WV.
- April 23** Distinguished Alumni and Poundstone Lecture, Mineral Resources Building, Morgantown, WV.
- April 25** Mining Engineering Visiting Committee Meeting, Mineral Resources Bldg, Morgantown, WV.
- May 1-3** Joint Meeting of WV Coal Mining Institute, SME-CAS, and WV Coal Association, Embassy Suites, Charleston, WV.
- May 17** WVU Commencement, Morgantown, WV.

Supporting the Future Education of Mining Engineers

Deborah Miller, J. D., Director of Planned Giving, WVU Foundation, Inc.



Mining engineers are a special breed. They are known for their analytical and problem-solving abilities. Their career successes over the years have helped to advance and improve our society and lifestyle in truly important ways. Supporting the future education of mining engineers is a way to ensure the continuation of our society's phenomenal record of progress. An easy way for

anyone to provide such support is through a gift provision included in a will or revocable trust.

The wording: "to the West Virginia University Foundation, Inc. (i.d. #55 6017181) to benefit the Department of Mining Engineering in the College of Engineering and Mineral Resources," will provide such a gift. Directing your support to any of the Department's highest priorities:

(1) opportunity funds which allow the Department to meet its most pressing needs in the future, (2)

professorships, or (3) scholarships would be appreciated.

To learn more about the smart choices you can make, call Robert Bragg, Director of Development, at (304) 293-4821, ext. 2240 or Christopher Bise, Chair of the Mining Engineering Program, at (304) 293-7680, ext 3302. Making sure that future mining engineers receive a valuable education at WVU is something that we can all help to accomplish!

(cont. from Career in Mining , Page 4)

again. We toured the mines and factories. The Minister of Mines was willing to install the first unit at Poland's expense. I wrote a detailed marketing report with recommendation to accept Poland's offer. FMC elected to let the project die.

During my retirement from the Galis-FMC-Eimco group, I thought about roof control. When I came to the group it had three servicemen who had

tremendous experience in analyzing strata above the coal seam and performing effective roof bolting. With those guys, roof bolting was an art and I thought their techniques should be documented for others to benefit. Their bolting experience and techniques should not be lost. Thus, I decided to write the book, "Roof Bolting Without Injury", to retain the techniques that these guys knew so well. I contracted to have it printed locally and I marketed the book. It was

well received. Statistics show that fatalities and lost-time accidents to roof bolting operators declined each year thereafter either by adhering to advice given in this book or by similar books that were published subsequently on roof bolting techniques. I have enjoyed my career immensely. It has been a beautiful ride. I would not trade it for any other. I urge you to consider a similar career path.

Assistant Secretary of MSHA Keynote Speaker at the 26th International Conference on Ground Control in Mining

Richard E. Stickler, assistant secretary of the U.S. Mine Safety and Health Administration (MSHA), presented the keynote address at the International Conference on Ground Control in Mining (ICGCM) on July 31, 2007. Mr. Sticker is responsible for administering the new federal MINER Act, which requires the agency to issue new regulations and adopt new strategies for protecting miners' lives.

In his remarks, Stickler said that when he entered the mining industry, the ground control tools and knowledge we have today did not exist. There were not even any approved roof control plans, only approved and unapproved roof areas. Approved roof were areas the mine foreman approved. Too often they learned from accidents that these areas should have been supported.

He also said the major examples of new technologies that have improved mine safety are: (1) the support systems of better quality and greater variety can address a wider range of roof problems; (2) canopies for face equipment have saved many lives; (3) ATRS (automated temporary roof supports) have reduced the hazardous task of manually setting temporary supports; (4) faster

computers and better modeling software provide the ability to quickly predetermine the optimum design for a mine; and (5) retreat (pillar) mining has benefited greatly from the technological progress in ground control.

Mobile Roof Support (MRS) systems reduce or eliminate the need for manually setting posts and cribs. Although there has been good progress in reducing ground control fatalities, clearly there is much more work to be done, said Stickler. "Our goal is zero fatalities, and we can't be satisfied with anything short of that goal," he said.

He added that many of the innovations and technologies we have today were first presented at this conference. "We all learn about new technologies, new methods, and new advances in ground control and safety in forums like this one. We will continue to have safer mines and safe and healthy miners through the contributions of people like you," he added.

During the three-day conference, speakers from 11 different countries presented 60 papers on a wide range of technical topics. Researchers, experts, and leaders in the mining industry from across the



Richard E. Stickler and Dr. Syd S. Peng

globe attended. As always, the conference was held in Morgantown and hosted by WVU's Mining Engineering Department. Co-sponsors were Agapito Associates, CONSOL Energy, Excel Mining System, Fasloc, J. H. Fletcher & Co., Hilti, Jennmar, Micon, Minova USA, NIOSH, MSHA, and the West Virginia Coal Association.



Dan Payne



David Bigby



John Hoelle



Naz Aziz

International Participants at the Conference

International participants with five or more years of attendance at the conference - Sroka Anton, Naj Aziz, David Bigby, John Hoelle, Hani Mitri, Dan Payne, Asel Preusse, and Nielen van der Merwe - received awards at the Ground Control Conference.



Conference Activities

In addition to the technical papers and presentations at the conference, participants enjoyed talking, picnicking, golfing, and listening to bluegrass music during the three-day event in Morgantown.

SME Student Chapter Delivers Mineral Information and Kits to Children and Parents

The Sixteenth Annual Gem, Fossil and Minerals Show was held at the West Virginia Geology and Economics Buildings at Mont Chateau in Morgantown on September 29-30, 2007. The show includes displays for geode cutting, commercial quality minerals and stones for sale, and mineral information booths for the public. SME Student Chapter members set up a "Minerals for Kids" booth. Each student had his or her own station, where common products made from minerals were displayed. Students explained the common uses of minerals to visiting parents and children. This is the sixth year the WVU SME Student Chapter has hosted Minerals for Kids to offer mineral and mining education information to the public.

Educational materials about minerals and mining were provided by the Society of Mining, Metallurgy and Exploration GEM and local mining companies. Minerals kits were provided by the

SME-Pittsburgh section and NOISH Pittsburgh Research Laboratory. Each mineral kit contained ten specimen minerals and a brief description of the physical properties of each mineral. The students gave away 300 mineral kits. Student volunteers were Matthew Bonnell (treasurer), Robert Burke, Kyle Clark, and Chad Collins, Ryan

Critchfield, John Cvechko (GEM coordinator), Gaetano Iannacchione, Karl P. Ivanisin, Joshua Jackson, Jacob Kerch, Jeffery Lorimer, Brijes Mishra, Drew Morgan, Alison Sears, Robin Oldham (secretary), Adam Patterson (vice president), Patrick Pelley (program chair), and Matthew Vance (president).



WVU mining engineering students educated area children and their parents about minerals at the 16th annual Gem, Fossil and Minerals Show at Mont Chateau in Morgantown last fall.

Sophomores Tour Foundation Coal's Cumberland Coal Preparation Plant

Twenty six mining engineering students from the MINE 261 class were lead by Dr. Felicia Peng on a tour of Foundation Coal's Cumberland Coal Preparation Plant in Pennsylvania on October 29, 2007. For many sophomores in the class this was their first time to observe the operations of a coal preparation plant. Together with the surface material handling system, the coal preparation plant is one of three subsystems of a mining operation. The class studied the processes of coal preparation plant flow sheet layout and drawing using AutoCAD software tools. This experience provided the opportunity for the students to understand the types of unit operations used in the plant and their arrangement. After safety training, the class was split to two groups, guided by Paul Bradley, a senior processing engineer, and James Alexander, a mining engineering student in MINE 261 who works in the plant. The plant is a full coal cleaning plant, consists of dense-medium vessels, dense-medium cyclones, spirals and froth flotation cells for solid-solid separation. For liquid-solid separation, a banana vibrating screen, centrifugal dryer, solid-bowel centrifugal, and thickener were used. The Department thanks Cumberland Coal Preparation plant and Foundation Coal for giving our students the plant tour.



Dr. Felicia Peng (first person on the right), led her class on a tour of Foundation Coal's Cumberland Coal Preparation Plant in October 2007. Helping to lead the tour were Paul Bradley (third from right), a senior processing engineer, and James Alexander (first person on the left), a mining engineering student in MINE 261 who works in the plant.



Summer picnic at Dr. Khair's home on August 28, 2007.

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Chair's Message

Dear Alumni and Friends:

It is a busy time of year for the Department. We are planning for the Spring Poundstone Lecture, Awards Banquet, Commencement, and Ground Control Symposium. We are also recruiting students, awarding scholarships, and preparing for the upcoming ABET Review, to occur in the fall of 2009. As we look back over recent achievements and plan for the future, we can all be justifiably proud of the fine reputation WVU's Mining Engineering program enjoys nationwide.

You may have noticed that many media outlets have recently recognized the WVU Mining Engineering program and our efforts to meet the ever-increasing demand for mining engineers. For example, The Christian Science Monitor ran a front page article entitled, "Industry Makeover: college graduates heading to careers in ... the coal mines" by Tom A. Peter. The author spent some time visiting the Department and speaking to our students last fall.

More recently, National Public Radio (NPR) ran an "All Things Considered" segment on February 12, 2008, "Coal Industry Lures Engineering Students." NPR reporter Chana Joffe-Walt visited our Department in November 2008, attended my class on "Mine Exploration and Valuation," and conducted several interviews. In case you missed the NPR broadcast, you can listen to it at:

<http://www.npr.org/templates/story/story.php?storyId=18921309>

Chana did a terrific job on this NPR segment and it has already resulted in several inquiries about our program from high-school students nationwide.

Our SME Student Chapter was recently named the Outstanding SME Student Chapter, receiving formal recognition at the SME Annual Meeting in Salt Lake City, Utah, in February 2008. Congratulations to Dr. A. Wahab Khair, faculty advisory to the Chapter, the student officers, and other individuals involved with this achievement! Also, at the SME Annual Meeting, Dr. Syd S. Peng was recognized with Distinguished Member status.

As a result of our growing enrollment, student-credit hours generated by our faculty also continue to grow. New initiatives, including instruction in service courses, electives, and Freshman Engineering, also contribute to this growth.

Our research program continues to develop nicely. It was recently announced that we will be participating in a study, in collaboration with NIOSH and the University of Utah, of the recovery of coal pillars through retreat room-and-pillar mining practices in underground coal mines at depths greater than 1,500 feet.

Looking ahead, I am often asked by alumni and friends of the Department how they can help us maintain our current upward trajectory. To sustain our enrollment growth and provide society with the mining engineers necessary for the production of mineral and energy resources, our greatest need is to expand our successful scholarship program. In addition to our annual drive for contributions, you may wish to consider establishing an endowed scholarship.

For example, I recently established an endowed Mining Engineering scholarship at WVU in memory of my parents, who sacrificed so that I could go to college. I am pleased that their commitment to higher education will live on in support of future Mountaineers. Perhaps you could consider joining me by acknowledging how WVU helped you in your career by establishing an endowed scholarship in your name, or named in honor of a family member or a favorite professor. You'll never fully know how many additional lives you will touch with your generosity!

Take care, and I hope you have a happy and productive 2008!

Christopher J. Bise



Dr. Christopher Bise