



# Black Diamonds

From the  
Department of Mining Engineering  
*COLLEGE OF ENGINEERING AND MINERAL RESOURCES*  
*WEST VIRGINIA UNIVERSITY*

**Volume 4, Issue 2**

For the latest, visit our web site at <http://www.mine.cemr.wvu.edu/>

**December 2004**

**J**im Laurita (BSEM 1982), President of Mepco, Inc. in Morgantown, WV is a loyal alumni of WVU Mining Engineering program. He has kept in close touch with faculty and students, always trying to help. He was elected to several terms as president of MRAC (Mineral Resources Alumni Chapter). Recently he set up an endowment for our benefits. The following letter explains very well why he set up the endowment and his unique method of payment tied to the amount of coal produced in his company.



**MEPCO**, Inc.

for over three generations.

We as a family, and our employees, have benefited by the resources that God has left us to depend upon for our sustenance. Our Grandfather, Joseph A. Laurita Sr., who recently died, instilled in us the value that mining coal brings to our community and its people.

The recognition that coal mining is a valued and necessary part of West Virginia's



**Jim Laurita, BSEM, '82,  
President of Mepco, Inc.  
of Morgantown, WV.**

past and future, and that the future generation of highly technical and skilled workforce will be

developed by institutions such as the Mining Engineering Department at West Virginia University, brings us to our desire to help sustain and further enhance the program you chair.

We would like to invest in the Mining Engineering Program at WVU because of the looming shortage of highly skilled mining engineers and mine managers in industry and the need to bolster the Mining Engineering Program so that those needs are met. Recent announcements of possible further cuts in funding from the State, are counter productive (see Laurita, Page 4)

July 12, 2004

Dear Syd:

As you are aware, my family has been in the coal mining business in the Morgantown, WV area

## William Raney, Poundstone Lecturer, Fall 2004

### Coal—America's Best Friend

**B**ill Raney, President of the West Virginia Coal Association (WVCA), presented the William B. Poundstone Lecture entitled "Coal – America's Best Friend" on November 11, 2004.



**Bill Raney presented the Poundstone Lecture.**

The room was packed for the lecture, including: WVU President, David Hardesty, CEMR Dean, Gene Cilento, and many distinguished mining engineering department alumni, students and friends.

Mr. Raney has a long history in the West Virginia coal industry. After

graduating from WVU, he worked for the West Virginia Department of Natural Resources. Then, from 1977 to 1992, he served as Vice President of the West Virginia Mining and Reclamation Association. In 1992, Bill Raney was appointed President of the West Virginia Coal Association, Inc. (WVCA) which is a trade association representing more than 90 percent of the state's underground and surface coal mine production and its related supply and service industries.

In his lecture, Bill talked about changes that have taken (See Raney, Page 2)



#### MAJOR STORIES

- Laurita Family Endowment from Coal Produced
- Bill Raney Presented Poundstone Lecture
- MINE Computer Lab Renovation
- Alumni Feature Articles & News
- Several Notable Awards and R&D Award
- MinE Recruiting Program
- MINExpo 2004 Las Vegas
- SMESC Activities and Class Field Trips

## Mine Design Computer and Teaching Laboratory Completed

The major renovation was finished this fall and the new computer and teaching lab was used extensively this semester with few problems. Joe Zirkle (BSMinE '04) tested all software during the semester as he completed his Mine Design Project.

The renewal project began in 2001 when the Mine Design Course was updated to emphasize computer applications for geologic modeling, mine planning and forecasting.

Dr. Heasley and Dan Alexander attended a Carlson SurvCADD software training session in early 2002. As the students worked with the programs, the existing hardware limitations interfered rather than enhanced project work. Old computers were replaced as funds allowed but having nine different configurations stretched the available technical support resources and it became obvious that new com-



The renovated Mine Design and Teaching Lab has a larger project work area. (Front row) Joe Zirkle, Jack Toombs, Kevin Rakes, (2nd row) Christian Warfield, Cade Mason, Dr. K. Heasley, Jonathan Gordon, Greg Boyce.

patible hardware was required. In addition, the data and power wiring was inadequate, we needed a projector for instruction and additional storage cabinets.

A proposal to upgrade the Mine Design Lab was assembled in 2003 and a fundraising campaign begun that summer.

Through the generosity of four coal industry leaders' donations, funding was completed in March 2004, construction began in the summer and the new high end graphics PCs were installed at the beginning of the Fall 2004 semester, just in time for the seniors to start their projects.

The dedication plaque reads *"In grateful appreciation for the mining industry leaders who funded the 2004 renewal of the Mine Design Computer and Teaching Laboratory:*

*John T. Boyd Company, Rosebud Coal Company, Mr. Thomas Garges, and Mr. George & Mrs. Janet Desko".*

## Alumni NEWS

- **Hilaria Ireland** (BSMinE '03) returned to WVU to visit her former professors during the Christmas Holiday. She is now doing mine permitting projects for Marshal Miller & Associates in Lexington, KY. She is also recently engaged and planning for an October wedding.

- **Jay Kramer** (PhDMinE '97) left MSHA's Technical Support in Pittsburgh, PA after a long period of employment to join Lapina and Associates in Boston, MA as a forensic engineer, where his work is still related to mining. In his recent correspondence, he said "the WVU Mining Department has an excellent reputation in mining. I did not realize how important this is until I began working independently of MSHA. ....".

- **Ryan Murray** (BSMinE '02) was promoted in September 2004 to Superintendent of Century Mine (a Longwall mine), American Energy Corporation, Allendonia, OH.

- **George Schuller** (BSEM '86) was transferred to Australia in charge of Peabody Coal's underground operations. **Jim Downey** (BSEM '79) replaces him as general manager of Pine Ridge Coal in Seth, WV.

(See Alumni News, Page 6)

(Raney from Page 1) place in the last 40 years, from slide rules to high-speed computers, and from two-lane roads to modern interstates. Through all of this change, coal has always been West Virginia's and the United States' best friend. It fueled the industrial revolution and it continues to sustain our present economy and standard of living. It is the United States' most secure and most abundant energy resource. It is our ticket to energy independence, "every ton of coal replaces 3.8 barrels of foreign oil". Bill praised the min-



**Bill Raney Accepting Poundstone Lecture Series Crystal Plaque from MinE Department Chair, Syd Peng.**

ing engineering students for "greater Vision and stronger resiliency" than their peers, for recognizing the importance of coal to our quality of life and as the "fuel of tomorrow", and for facing the challenge of leading men and women into the earth to mine the energy for today's world. He challenged the students to be

"technically competent, and to be strong and adaptable for varying conditions" and complicated circumstances" with an eye always on the future.

Mr. Raney praised the Mining Engineering Department as "the foremost" coal mining program in the country. But he emphasized that there needs to be an "institutional reaffirmation and a statewide commitment" to the programs here in Morgantown to make sure they are "the best" in the country and the world. In concluding, Bill stated that the recent political victories and the strong employment growth in the industry should insure that Coal will be America's Best Friend for many years to come.



## School of Mines, WVU, 1946-1950

The Fall of 1946 saw the campus of West Virginia University swollen with students like never before. Something like 5,600 students were registered, and most of them were veterans of World War II. These students, mostly men, were the first to take advantage of the G.I. Bill and were either entering as Freshmen or returning to college to complete their interrupted college studies. The School of Mines was no exception.

Professor Charles T. Holland was there to greet the largest class of Freshmen that the School of Mines had seen—a total of 55. All but four were veterans and I was one of the four. Registration for all Freshmen entering WVU was held in the Field House, now known as Stansbury Hall. It was a hectic time, getting those first-year classes arranged. Offices for the School of Mines were in the Mineral Industries Building, commonly referred to as



the M.I. Building, now named White Hall. All buildings were on the Downtown Campus, the only campus in those years.

Classes were scattered about the campus. I remember having my English Literature class in Oglebay Hall, Algebra in the Chemistry Building (now Clark Hall) as well as Chemistry in the auditorium at the west end of that building with 300 of us in Professor Collett's lecture—a real shocker. Accommodating the large number of students must have been a real challenge to the University Administration and professors. Housing was a problem for all.

Many of the veterans were married and had to find apartments. Out-of state students, like myself, were not eligible for the limited dormitory space. I found a room in a private home on the hill overlooking the old Mountaineer Stadium. I believe that my Sophomore year was the most difficult with Calculus, Physics, Statics, followed by Strength of Materials, and Quantitative Analysis along with Mine Surveying and Military Science. Being a non-veteran I was required to take Basic R.O.T.C. Eighteen and nineteen credit hours of courses was the norm for engineering students. I found the veterans to be very mature and hard working, and usually good students, eager to make up for those years spent in military service.

The Sophomore summer saw us engaged in the summer Mine Surveying program. It involved six weeks of intensive study and "hands on"

by **Raymond Bradbury**  
**BSEM '50**

surveying both in the field and underground at the Pitt-Consol Arkwright Mine near Osage. We worked in teams. The evenings were spent in the drafting room in the M.I. Building working up surveys and plotting our maps.



**G. Ralph Spindler, the Dean and Professor of School of Mines, WVU, 1948-1961.**

Professor Holland was replaced by G. Ralph Spindler as Dean of the School of Mines in 1948, my Junior year. He was returning to WVU from post-war work in Europe. Professor Charles T. Holland moved on to (See Bradbury, Page 4)

## Senior Field Trip, Spring 1950



(front row) George W. Ash, Anthony J. Fumich, William Blankenship, Sherwood Sorrell, Pete Ezerski, John P. Baug, Sr., Harold Crickmer, Raymond A. Bradbury, Jerome L. Workman, Lewis R. Kay, James W. Coulon, (second row kneeling) William J. Marsh, Carl L. Sainato, unknown, unknown, Tracey E. Lafferty, Douglas R. Cook, unknown, Donald Bondurant- professor, Allen L. Wickham, James Page, (third row kneeling) Timothy A. Salvati, Coy Allen, Douglas M. Marshall, Frank M. Heinze, James L. Magro, (standing left) Peter I. Shaluta, bus driver, William A. Patterson, Jr., Alvin R. Jobes, (front row standing right) Wendel H. Bolden, Malcolm O. Magnuson, Pete A. Placidi, Donald R. Ellis, John Turyn, Jr., G. R. Spindler, Gene E. McCoy, (back row standing right) Charles L. Glover, Jack N. Gerwig, Edward Kawenski, James A. Bloom, Samuel A. Kendall, Robert C. Long, James A. Harmer, G. Ralph Spindler, Joseph McClung, Gene E. McCoy (not along on trip: Bob Dorsey, Leonard Ellis and Herb McGrunls).

**(Laurita from Page 1)**

For vital programs such as yours. The Resource Industry will always be a major component of the revenue to West Virginia and its people, and supporting the programs that directly support the people of West Virginia, is essential.

We pledge to support your program by committing \$0.02 per ton for every ton of coal we mine and sell from our mining operations for five years. Current production levels are at approximately 1.2MM tons per year, and planned production levels are to continue to climb to approximately 3MM tons per year over the next five years.

We wish these dollars to be invested solely into the Min-

ing Engineering Program to be used for the continuing operation and expansion of the program and to support the coal industry of West Virginia. We want to set up the Laurita Family Endowment and these dollars stated previously are to be



**Field Trip to Laurita Aggregate Mine .**  
(From left to right) Nancy Dorset, Kris Lilly, Jim Laurita and Dr. Keith Heasley on April 14, 2004

deposited in this Endowment. These dollars should be invested and the interest or income generated be used for the sole benefit of the Mining Engineering Program at the discretion of the program chair.

Use of the Endowment

Fund other than for the Mining Engineering Program can only be modified by me or my designated linear descendant.

Sincerely,  
James L. Laurita Jr.  
President

cc: Dean Eugene Cilentio, Duke Perry

## **SME Young Leader Class of 2005— Shelley Shalvis**



**S**helley Shalvis (BSMinE '00) was selected as a member of the 2005 SME Young Leaders Class. SME has created this program to help equip young professionals with the tools needed for success in both the SME and the mining profession. She will serve for 4 years on the Young Leaders Committee of SME.

**(Bradbury from Page 3)**

V.P.I. at that time to head up their Mining Department. I remember them both to be very qualified as well as very good mining instructors. As upper classmen we were to have many more classes under Professor Spindler than we had with Professor Holland. Our other instructors were Richard Laird, Don Bondurant and Dick Ahrenholz. Joe McClung was an assistant instructor during those years.

A vivid memory I retain was becoming proficient in the use of the slide rule, as a second year student. We engineering students were easily identified on campus with the slide rule dangling from our belts.

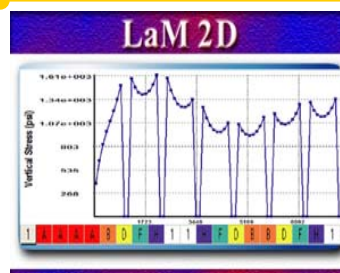
By the time we had entered our third year at WVU we were taking coal mining and petroleum courses. Most of our time was spent in the M.I. Building. Mechanics subjects, E.E. courses in A.C. and D.C. electricity, Business Law and Special Trig are some that I remember taking in old Mechanics Hall. What an eye-opening day it was when the plotting of Descriptive Geometry "snapped in"

to my mind.

In our Senior year we knew we were approaching the day when we would leave the School of Mines and enter the industry. Mine Design courses provided the opportunity to put into practice our learning exposure of the three previous years. Some of the veterans had completed their courses and had graduated in August of 1949 or in January of 1950. The Spring of 1950 saw us leave on a Senior field trip to visit mining operations in the southern part of the state. A few 3rd year students were included. There were 42 students, Professor Spindler, Don Bondurant and Joe McClung on that trip, a busload of eager and ambitious men. I turned over the photograph of that group, as we posed beside the bus, to MRAC in 2000 (see photo on Page 3). The graduating class of 1950, by my count, was 56 and included those who finished in January and August.

Interviews were being conducted on campus by a number of coal companies in the Spring of 1950. A number of individuals already had job commit-

ments, in several cases in their home communities. Most of the Mining option graduates found jobs in West Virginia, Pennsylvania or Kentucky. The Oil & Gas option graduates were finding jobs that were more widely located. All in all, the students of 1946-50 have done alright for themselves and have contributed significantly to the coal and petroleum industries.



**Olayemi Akinkugbe** (MSMinE '04) recently completed the creation of a 2-D boundary-element program, LaM2D. This program can be used to quickly and easily calculate the displacements, stresses, strains and safety factors associated with two dimensions multiple-seam mining situations. Copies of the program are available from Dr. Keith Heasley

[Keith.Heasley@mail.wvu.edu](mailto:Keith.Heasley@mail.wvu.edu)

Those going into the coal industry were entering at the beginning of the technology revolution and helped sustain it by making the industry a safer and more productive one over the 35-40 years of our careers. The School of Mines and its professors had provided a good foundation for us just as the professors are doing today.

**Notes:** Some are not be able to be recognized with their names in the photo in Page 3. If you know them please let us know. The original photo is displayed in the COMER Museum.

**Personal Note:**

**"The newest member of the Mining Engineering Department," Samuel Kenneth Heasley, arrived April 22nd, 2004. As you can see, he spent all fall rooting for WVU Mountaineers.**



## David Zegeer Received a Pioneer Award from

This article is an excerpt of the VCR tape recorded during the award ceremony by CEMR, Office Development.

**W**VU College of Engineering and Mineral Resources alumnus, David Zegeer, BSEM '44, recently received a Pioneer Award from the town of Jenkins, Ky. for his outstanding achievements and many contributions to the community.

David Zegeer, a native of Charleston, W.Va., graduated from WVU in 1944 with a Bachelor of Science in Engineering of Mines. He briefly entered the Army Corps of Engineers before moving to Eastern Kentucky with his wife, Louise. Zegeer was very happy about his choice to move and has no regrets about claiming residence in the mountains of Kentucky.

"I am very proud about being involved with the coal industry in Jenkins," said



**David Zegeer (BSEM '44) received the Pioneer Award.**

Zegeer. Zegeer moved to Jenkins, Ky. as a surveyor. He became a section foreman and claims that working with the laboring people was the best experience of his career. He was witness to many of the industry's innovations and has spent the majority of his life surrounded by coal mines and its people.

After 31 years in Jenkins, Zegeer retired and moved to Lexington. He began evaluating

coal properties and investigating mine explosions. During this period, Zegeer had the opportunity to travel a great deal, studying mines in every corner and crevice of the world. His trips took him to places such as South Africa, Canada, Australia, Nova Scotia, South America, China, and Russia.

In 1983, Zegeer decided to move to Washington D.C. where he worked for the Department of Labor as the Assistant Secretary of Labor. He was the Director of Mine Health and Safety Administration for every coal and mineral mine throughout the country. At this time, approximately 600,000 people worked in the industry and many of the safety techniques that Zegeer implemented set the standard for the health laws in use today.

"I always tried to think of the men in the mine as if they were my children," said Zegeer.

Zegeer's techniques were

so successful, that the first year he held the title was the first year the mining industry ever experienced less than 100 fatalities. That was a very significant moment for the progression of health and safety for miners.

Zegeer and his wife now reside in Lexington, KY but his memories of Jenkins and its people are very dear to him. The town recently named a coal and railroad museum after him, and he is planning on donating many of his old personal photographs to them very soon. Even after all of his accomplishments, Zegeer still does a little private consulting occasionally, but jokes that "Father Time" is telling him to slow down a little bit.

WVU's College of Engineering and Mineral Resources and its Department of Mining Engineering are very proud to call David Zegeer an alumnus, a friend, and a true pioneer in the mining industry.

## Helping your ALMA MATER— Mining Engineering Program

by **Deborah Miller, JD**  
Director of Planned Giving  
West Virginia University  
Foundation, Inc.

**M**any graduates of WVU think about helping their *alma mater*, but by and large, engineering graduates seem to do that more than do graduates of any other college in the University. No one has determined why that is, but it has definitely made a big difference in the quality of the Department of Mining Engineering's programs.

One popular support option that many consider is a gift made through one's estate plan. It's easy to do that at the same time a person provides for his or her family's future needs. A gift included in a will

through the wording of "to the West Virginia University Foundation, Inc. for the benefit of the Department of Mining Engineering, the College of Engineering & Mineral Resources" is the way to make something really important happen!

The gift can provide opportunity funds, a professorship, or a *scholarship* to help with the Department's greatest needs. The gift can be an *endowment* that will last forever and will provide annual income in the name of the person(s) the donor wishes to commemorate in this special way.

Taking that important step to carry out a plan of support is very much appreciated. Syd Peng, Chair of Mining Engineering Department or Bob Bragg,

Director of Development, can help you. Call Syd Peng at (304) 293-7680 X3301, or Bob at (304) 293-4821 X2240. Either of them will help you make sure your good plans can be fulfilled!

## Demonstration of Void Detection Technologies Project Awarded by MSHA

**M**SHA has awarded to Stolar Research Corp. of Raton, N.M. and WVU MinE Department for demonstrating two void detection technologies—Look Ahead Radar (LAR) and Electromagnetic Gradiometer. Such technologies are to be used in preventing accidentally mining into old mine voids, such as the 2002 flooding incident at Quecreek Mine, PA. Drs. Syd S Peng and Yi Luo will work on the detection accuracy and ground truthing aspects of the technologies.

## Calendar of Events Spring, 2005

- Feb 28-Mar 2** SME Annual Meeting and Exhibits, Salt Lake City, UT with MRAC Reception.
- April 10** Mineral Resources Award Banquet, Lakeview Resort & Conference Center, Morgantown, WV.
- April 21** William Poundstone Lecture and Distinguished Engineer of Mines Award, and COMER Museum dedication, Mineral Resources Building, Morgantown, WV.
- April 22** MinE Dept Visiting Committee Spring Meeting, Morgantown, WV.
- May 5-7** WVCMI and WVCA Joint Meeting, Marriott Hotel, Charleston, WV.
- May 15** WVU Commencement, Morgantown, WV.

## Work in China Mining Industry

by **Ronald K. Hite, BSEM '80**  
*Shanxi Asian American-Danling Energy CO.*

In April 2001 I accepted the position of General Manager of Shanxi Asian American Daning Energy Company, located in Eng County, Shanxi Province PRC. The Daning Mine will produce 4.2 million tons per year commencing in 2005. The reserve base of Daning Mine is over 170 millions of anthracite coal with an average seam height of approximately 5 meters. The mine plan is based on using one high seam longwall system and two Joy 12/27 continuous miners. Daning procured the best mining and coal processing equipment made in the world while blending in domestically made support equipment. The vision of all the shareholders in this project is to have a world-class, safe, high production, low cost mine in



**Ronald Hite, General Manager of Shanxi Asia American Daning Energy CO.**

one of the premier coal seams in the world. This project is the first foreign joint venture in underground mining in the PRC.

China has provided me many daily learning experiences. I have seen engineering as a common denominator for success throughout my career in the coal industry at home or here in China. When both op-

eration and engineering rely on each other and communicate well, the safety of the operation and systems that support the operation continually improve due to the synergism generated. The operating staff implements technical plans into the daily operation and long term planning, while the engineers need operational feed back to stay current.

During my years as a student at WVU, the entire staff of COMER reinforced the mining engineering skill needed throughout our career in mine design, ventilation, rock mechanics and economics. I still remember the discussions in White Hall about the same rock mechanic and ventilation principles I used today.

To me, Mining Engineering

is one of the most challenging engineering disciplines. In my opinion students today need to take advantage of the array of classes WVU offers not only in mining but in mineral economics, coal processing and business. In the competitive coal and mineral market at home and around the world, a mining engineer is expected to blend all of these parameters in daily decision making and long term planning. My advice to students today is to take advantage of all you can at WVU. I do believe it is the best mining program in the world, and you will be expected to be the best when you graduate.

And If you are ever in China stop in for a visit.

## OBITUARIES

**Stanley J. "Stan" Moskal (BSEM '84, MSEM '89)** passed away at Ruby Memorial Hospital, Morgantown, WV on October 17, 2004. At the time of his death he was employed with West Virginia Environmental Protection in Fairmont, WV.

**Hilary Gerard "Gerry" Kelley (BSEM '78)** passed away

peacefully among his family and friends from cancer on October 8, 2004.

Gerry was the son of Dr. Jay Kelley, Dean of School of Mines-COMER, 1970-1978.

He owned Kelley Legal Services, PLLC in Philippi, WV



(Alumni News from Page 2)

- **Garold (Gerry) Spindler (BSEM '70, MSEM '76)** was appointed as CEO of UK COAL on October 18, 2004. UK COAL is the largest coal producer in UK with 18-20 million tons (metric) annually. His office is located in the Head Office in South Yorkshire, England, United Kingdom.

- **Steve Tadolini (PhDMinE '03)** was promoted to Acting Branch Chief, Rock Safety Branch, Pittsburgh Research Lab, NIOSH effective October 1, 2004. In that capacity, he supervises a group of 40 scientists and engineers.

- **John Zachwieja (BSEM '75)** (Alumni News, Page 7)

and was a tried and true champion for the underdog. His funeral was held at Our Lady of Grace Catholic Church in Greensburg, PA. Alumni attending the funeral included Richard Clonch (BSEM '76), Bradley Lewis (BSEM '78), Jason Witt (BSMinE '01) and Dr. Syd S. Peng.

## Alumni Back Together Again

September 18, 2004. Friends and family gathered to witness the marriage of Doug Fala (BSMinE '00) and Carri Jones. Among friends were mining graduates who stay close - not only in the in-

dustry, but in personal lives as well. It just proves that even away from WVU, mining alumni are always close at heart. Congratulations and Best Wishes to Mr. and Mrs. Doug Fala.



**Doug Fala and Carri Jones' wedding in Charleston, WV on September 18, 2004. Alumni shown above are (back row, left to right) Josh Mullins, Tim Keating, Roy Hall, Shelley Shalvis, Michael Necessary, Ryan Toler, (front row) Josh Rockwell and Doug Fala.**



## An Unforgettable Summer Internship

I feel honored to have the opportunity to share my summer internship with all those who receive the Black Diamond News Letter. As a senior in the Mining Engineering Department at WVU, I have used my past summer internships to prepare for my future after graduation. This summer I had an opportunity that offered a learning experience I could not imagine learning in any classroom or out of any textbook. I was given the opportunity to be a project manager over the construction of a ten million dollar processing plant for an aggregate quarry in New Jersey that is owned and operated by Tilcon NY.

Over the past three years, I have participated in summer internships at Tilcon New York Inc. The summer of 2002 and 2003 I worked in the Engineering department and was involved with many different mining projects. In May 2004, I embarked on a project to erect



**Justin Bushneck in Aggregate mine, Tilcon New York Inc.**

1000 ton per hour aggregate processing plant, that many of my peers or people in my major do not get the opportunity to be involved with in the quarry industry. By the time I returned to school in August, I left behind a safe, MSHA inspected plant, that was capable of running production starting on September 1st 2004.

Tilcon New York Inc.'s investment in this new aggregate plant was needed at their Milington Quarry location because

the remaining mine reserves were located under the existing plant. Tilcon decided it was necessary to purchase a new plant, erect it and make it fully operational before the old plant would stop production and be dismantled.

The 1000 ton per hour modular

plant was purchased from Telsmith. All of the components of the plant were constructed at the Telsmith facility in Milwaukee, Wisconsin. The components were shipped to New Jersey via tractor trailer and then erected by Joule, a contract erection company.

The plant itself consists of a 150-ton hopper, vibrating grizzly, primary crusher, surge pile, scalping screen, secondary crusher, two tertiary crushers, two finishing screens, and

*by Justin Bushneck,  
BSMinE 04*

twenty-one conveyors. All of the equipment utilizes the latest in crushing and screening technology. At this time the aggregate plant is the most technologically advanced aggregate plant in the country.

A typical day of crushing will yield approximately 10,000 tons/day. Seven different marketable items are sold as construction products around central New Jersey and New York City.

Upon completion of my summer internship, I was offered a full time position with Tilcon New York Inc., as the Plant Production Supervisor of this new plant. I have accepted this position. Upon graduating in December, I will begin my career and a new page in my life story. The advice I would like to leave to all future mining engineering students is take advantage of all opportunities and internship programs. Work experience is key for your career and your future.



**Michael Duval with Bucyrus-Erie 1570WS Dragline as background, Hobet 21, Arch Coal, WV.**

### **Michael Duval, BSEM '80**

Manager of Engineering and Environmental Affairs, Hobet 21 Complex, Arch Coal, WV. He has been working at Hobet 07 and Hobet 21 mines in Logan and Boone Counties, WV for mine planning and surface operation, financial analysis, engineering and environmental affairs.

### **(Alumni News from Page 6)**

has been transferred to Richland, VA as Vice-President, Southern Appalachian Operations, CONSOL ENERGY.

- **Mike Zervos (BSEM '80)** has left Drummond Co. Inc. in Jasper, AL as president of mining to pursue other interests.

## Fall MRAC Banquet at Erickson Alumni Center on October 2, 2004



MinE Alumni participated in 2004 Fall MRAC Banquet were: Dr. Wahab Khair BSEM'68, MSEM '69; Jeff Kukura, BSEM '87, Jerry Zimmerman, BSEM'95, Jason Hustus, BSEM '96, Nancy Dorset, BSMInE '01, MSMinE '03, Heather Miller, BSMInE '02, Michael Peelish, BSEM '83, Ben Statler BSEM'74, Dr. JinSheng Chen, PhDMinE '97, and David Tang.

### **23rd International Ground Control Conference in Mining**

The Conference was held in Morgantown, WV, August 3-5, 2004 with 240 attendees from all major mineral producing states and 8 foreign countries. A total of 43 papers were presented.

## Dr. Syd Peng Received the Medal of Excellence from UK

Morgantown, W.Va. – West Virginia University's Chair and Professor of Mining Engineering, Syd S. Peng, was recently selected as the recipient of the Medal for Excellence for 2004 by the Institute of Materials, Minerals, and Mining (IOM<sup>3</sup>), United Kingdom—the oldest mining institution in existence. The award was given at a black-tie banquet in London on June 15, 2004.

The Medal of Excellence award is the highest award given by the century-old Institute for lifetime contribution to the area of mining. This year, Dr. Peng was the unanimous choice of the Council of the Institute for his contribution in the area of longwall mining. "To receive a premier award from the oldest mining institution where the technology began is highly sig-



**Dr. Syd S. Peng Received Medal of Excellence from the United Kingdom Institute of Material,**

nificant. I am honored to be selected by the Institute," said Dr. Peng.



Dr. Peng is widely recognized as the leading researcher for underground coal mining in a number of areas including ground control, longwall mining, and subsidence measurement and prediction.

When he began his research career in the early 1970's, the underground coal mining industry was attempting to adapt European longwall mining technology to U.S. conditions. The industry struggled with implementing the technology, primarily because of ground control differences between the two continents, and a significant number of mining operations failed. Dr. Peng began study-

ing the technical and scientific issues for longwalls and over the years published extensively in the field of longwall mining and ground control. As his research progressed he became one of the leading researchers in the field who is sought after for advice and guidance for longwall mining systems. Today, U.S. longwall technology is the most productive in the world.

Dr. Peng is the founder and editor of the "International Conference on Ground Control in Mining" which has been held annually since 1981 and is widely recognized as the leading ground control in mining conference in the world.

## MinE Visiting Committee Met to Develop a Long-Term Strategic Plan on November 12, 2004

**Three representatives were assigned to work with the Chair for development of long-term Mining Engineering Needs.**



Mining Engineering Department Visiting Committee Members Attending the Meeting were (Left to right): A. Scott Pack, BSEM '83, Vice-President, Sale & Marketing, Foundation Coal Corporation; Stanley Subolaski, Commissioner, Federal Mine Safety and Health Review Committee; John Murphy, Professor, University of Pittsburgh; Walter Scheller, III, BSEM '86, Vice-President, Environment & Engineering Services, CONSOL Energy; Barry Dangerfield, BSEM '73, MSEM '81, Chief Operation Officer, PinnOak Resources, LLP; Jim Cosaro, BSEM '66, Vice-President, Penn Virginia Resources Partners LP; Jeff Kelley, BSEM '81, President, Alcon Planning & Consulting; and Gary Hartsog, BSEM '79, MSEM '85, President, Alpha Engineering Services, Inc.

## MinE Students Earned Mine Design Award and Scholarship

Donald S. Swartz II, received the 2004 First Prize Mine Design Award. The purpose of the Mine Design Awards is to serve as a tangible stimulus excellence and to recognize outstanding effort by the student in the preparation of the senior engineering design project. We have very good record of our students receiving the Award in the past. They include Ryan Toler and Shelley Shalvis, 2001; Ryan Murray, 2002; and Rebecca Hardy and Hilaria Ireland, 2003. Brandon Williamson was the recipient of 2004 SME Pittsburgh Section Scholarship Grant Award.

There were two days of technical sessions, Students presentation and Award session in the Joint Meeting. Dr. Yi Luo



**Kevin Wu (left) presented 2004 SME PITT Grant Award to Brandon Williamson while Keith Heasley looked on.**



**(Left to right) Donald S. Swartz II received the First Prize Award for Mine Design Project from Kevin Wu while Dan Alexander looked on.**

made a technical presentation about subsidence damage mitigation. Dr. Keith Heasley also made a presentation on gas well damages.



## Department of Mining Engineering and Stolar Research Corp. Won Research and Development 100 Award

The Department of Mining Engineering, West Virginia University, in partnership with CONSOL Energy and Stolar Research Corp., received the prestigious R&D 100 Award at R&D Magazine's Annual Award Banquet. Labeled the "Oscars of Invention" by the *Chicago Tribune*, the R&D 100 Awards are evaluated individually according to their technological significance.

The Radio Imaging Method (RIM-IV), is designed to identify and locate geological anomalies or hazards in the advance of mining and was funded by the U.S. Department of Energy's Industry of Future program.

The project team consisted of Stolar Research Corp. that developed the RIM-IV technology; WVU Department of Mining Engineering's Chairman Dr. Syd Peng and Professor Yi Luo who



**Drs. Felicia and Syd Peng, Mr. Joe Duncan and Dr. Larry Stolarczyk from Stolar Research Corp., and Mr. Michael Mosser (BSEM '72) from NETL Morgantown, WV participated in the Research and Development 100 Award Banquet at Navy Pier, Chicago, IL, October 14, 2004.**

conducted the underground tests, refined the software, and performed computer modeling analysis; and CONSOL Energy that provided a mine site for

demonstration of the technology.

For 47 years, the R&D 100 Awards have been helping researchers obtain international recognition for the best products

developed for the year.

The winning of an R&D 100 Award provides a mark of excellence known to industry, government, and academia as proof that the product is one of the most innovative ideas of the year. This year, the winners came from the U.S., Japan, Germany, UK, Australia, Austria, Liechtenstein, Poland, Sweden, and Switzerland, and represented all major industrial organizations such as GM, IBM, Intel, Kodak, Sun Microsystems, Daimler-Chrysler, Toyota, and Hitachi. It's very gratifying to know that the U.S. coal mining industry is using cutting-edge technology just like any other discipline.

### 2004 SME-CAS and WV CMI Joint Meeting at the Greenbrier, WV

The Joint Meeting of WV Coal Mining Institute (WVCMI) and SME/CAS was held from October 22 to 23, 2004. This joint meeting provides opportunities for MinE students to meet our alumni and industry people. There were three technical sessions, including a special presenta-

tion session for the graduate students from mining schools. This year in addition to Dr. Syd Peng's presentation, two graduate students from MinE Dept made the presentation, Becky Hardy on recent improvements to coal mine ventilation modeling, and Zhengxing Gu on reverse dolomitic phosphate pebble flotation.



**MinE Faculty and students attended the Meeting were Drs. Syd and Felicia Peng, Sami Stahle, Rebecca Hardy, Joe Zirkle, Cade Mason, and Zhenxing Gu.**

### Rebecca Hardy sang in front of crowd at Pittsburgh Pirates Game

On Wednesday July 28, 2004, Becky sang the National Anthem in front of a crowd of nearly 23,000 people at the Pittsburgh Pirates versus the Atlanta Braves baseball game at PNC Park in Pittsburgh. It was a little unnerving



**The large screen showed Ms. Rebecca Hardy sang the Star-Spangle Banner at the Pittsburgh Pirates Game.**

and very exciting. She has been singing for over 10 years now and in May of 2003, she received her BSMInE in Mining Engineering with a minor in Vocal Performance from WVU. She has enjoyed singing for her church, the events at the

Greene County and Washington County Fairs, various WVU sporting events, and Wildthings baseball games out of Washington, PA (the Wildthings are a minor league professional baseball team, one of their pitchers is Clayton Ewen, a CEMR MAE student).



## Guest Speakers for SME Students Chapter Seminars

As part of SME Student Chapter's activities, guest speakers were invited to present their experiences in their profession and specialized fields. The photo on the top right shows Dr. Barbara Arnold, president of PrepTech, Inc. specialized in coal/mineral processing plant equipment and design, giving a presentation about Coal Cleaning Flow-sheet Development on November 17, 2004.

On October 27, 2004, Mr. Terry Dayton made a presentation on "Permitting under the

Mining Program" Mr. Dayton is a staff Environmental Engineer with Pennsylvania Services Corp. of the Foundation Coal Corporation—Emerald and Cumberland Mines, Wayensburg, PA. for more than 30 years (Photo below).

Both presentations were very well attended by the Faculty and MinE Students.



## Cumberland Mine Coal Preparation Plant, Kirby, PA Visited

Sophomores in Engineering Computer Aided Design class visited Foundation Coal Corporation's Cumberland Mine, Coal Preparation Plant in Kirby, PA on September 1, 2004. The Plant has 1,800 TPH capacity, using dense-medium vessel, dense-medium cyclones, spiral concentrators, and froth flotation cells. Students were introduced to the

coal preparation plant flow-sheet, unit operations and plant operations. For most students, this was their first coal cleaning plant visit. We thank Paul Brady, Mining Engineer, Charles Barnhart, Plant and Surface Manager, Sam Cario, General Manager of Cumberland Mine, and Dr. Jinsheng Chen, (PhDMinE '97), Chief Geotech Engineer for hosting the visit.



(From left to right) Justin Morton, Eric Lilly, Morgan Sears, Joe Helbig, Joshua Moran, Ben Worley, Gary Dankovchik, Dr. Felicia Peng, Daniel Ryan, Derick Reel, Brian Britton, Kevin Brockett and Paul Brady, Plant Engineer at Cumberland Mine, PA.

## Only Plow Longwall In U. S. at Pinnacle Mine in Pineville, WV



The Students visited Pinnacle Mine are (back row, left to right) Morgan Sears, Kevin Rakes, Jack Toombs, Joel Helbig, Gary Dankovchik, Ben Worley, Joe Zirkle, Kimberlee Eldridge (in front of Zirkle), Michael Moten, Derick Reel, Michael Mullins, Dan Alexander, (front row) Dr. Yunqing Zhang, Joshua Moran, Justin Morton, David Tang, Ryan Critchfield.

Seventeen students and faculty composed mostly of the Sophomores in the Underground Mining Systems class toured the Pinnacle Mine No. 50 in Pineville, WV on October 12-13, 2004. PinnOak Resources, LLC was created from the remaining US Steel mines on June 30 2003. The students saw a CM development section and the only plow longwall in the country. The Plow longwall is operating in Pocahonts #3

coal seam with a mining height of 42-in, and producing 3-4 million tons of metallurgical coal annually. Thanks are due to Ben Statler (BSEM '73), President, Barry Dangerfield (BSEM '72/MSEM '81), Chief Operating Officer, Doug Williams (BSEM '84), General Manager, Bill Barnard, Jim Bennet, Shane Berry, Russell Combs (BSEM '79), Mine Superintendent, and Teddy Davis for hosting the visit.



## No Man's Words and Appearance Remain in Human Memory but His/Her Deeds...

by **Victor Nazimko,**  
**Professor, Donetsk**  
**National Technical**  
**University, Ukraine**

The first time I discovered the Mining Engineering Department, West Virginia University was 20 years ago when I found the book "Longwall Mining" by S. S. Peng and H. S. Chiang in the Moscow library. This book accumulated then worldwide longwall mining experience. The most interesting part of this book, for me, was its coverage in ground control because it was my major subject. Later I met Professor Peng personally in 1994 when I was a member of the Ukrainian group visiting West Virginia University.

Dr. Peng helped me greatly during my stay in USA. He introduced me to new efficient technologies that have been employed in American coal mines. It was exciting to visit modern coal mines and to learn about

rock bolting, continuous miners and the shear scale of American longwall mines producing 30,000 tons per day while 1,000 tons per day has been considered as an outstanding achievement in many other countries. In addition, Professor Peng introduced me to international specialists at the Annual International Ground Control Conference hosted by WVU. Such an opportunity was impossible to quantify because personal communication is the most efficient way to exchange knowledge and ideas.

Syd Peng is a special man who may work for 25 hours per day. I have not known another such energetic, creative and modest person before. That is why his professional interests cover such a wide range of mining subjects. Mining subsidence is one of them. When subsidence is delayed it becomes very complex. We won a research grant from CRDF in 1997. In this project, Professor Peng visited Ukrainian coal mines and supervised actual closing of an abandoned vertical



Investigation of an abandoned vertical shaft filling it with waste rock material. (from left to right) Alexandrov, S.N., Director of Mining Institute, Donetsk National Technical University,, Ukraine; Petrov, V., Main Engineer of Zasiadko coal mine, Ukraine; Nazimko, V., Professor Donetsk National Technical University; Syd Peng, WVU.

shaft. It provided excellent experience in dynamic cooperation and was a collective breakthrough for my research team.

As a result of the cooperation, new technologies have been developed. Now, we are introducing American experience in Ukrainian coal mines where mechanical rock bolting technology has

been adopted. Our students make use of the Proceedings of the Ground Control Conferences and other books and study materials provided continuously by Dr. Peng. Every time we use these gifts we recall a saying that no man's words and appearance remain in human memory but his/her deeds do.

### Investigation of multi-seam mining effects at Crawdad No. 1 Portal, Maldsville, WV on December 1, 2004.



The Crawdad mine is operated by father and son. (left to right) Jisheng Han, Dr. Yunqing Zhang, Dr. Syd Peng, Charles Lilly (father), President, Murali Gadde, and Kristopher Lilly (BSMinE '04) (son), Forman.

### MinE Students visit CONSOL Drilling Site, November 2, 2004

Where does that core data we talk about in the MinE 306 Mining Exploration and Valuation class come from? To answer that question WVU asked Ernie Thomas, Coal Geologist for Consol Energy to show us a wire-line coring drill rig in the field and explain how he sets up a drilling program, locates suitable sites, deals with landowners, permits drilling, reclamation and logs the core.



(Left to right) Ernie Thomas explained and showed the drilled coal core samples to MinE students, Murali Gadde, Sami Stahle, Jonathon Gordon.

## MinE Students Hold the Second Annual Minerals for Kids Booth

Each child that comes through the MinE booth receives a free mineral kit containing ten minerals and a booklet explaining what they are used for. Special packets of mineral information, posters and lesson plans are also sent to teachers. The Mining Engineering students started these activities for WV kids as a public service project.

Over 200 children handled mineral specimens and listened to the college students describe how we use coal and minerals everyday. In about 5 minutes the kids and their parents move through the booth and collect their free



mineral kit. Along with the mineral and coal stories they hear, we know they gain a better appreciation of the importance of coal and minerals in their lives. Many kids have stories of their own about rocks and mining that they are eager to share with us. And adults also enjoy

learning about coal and minerals.

This is the second year the WVU Student Chapter of the Society for Mining, Metallurgy & Exploration (SME) has put up a Minerals for Kids booth. The WVG&ES Gem, Mineral, & Fossil Show is sponsored each year in

the fall by Sunset Minerals at the Cheat Lake, Mont Chateau offices of the WV Geologic & Economic Survey. The volunteers from the Department of Mining Engineering (MinE) staffed the Minerals for Kids booth on October 2nd & 3rd, 2004 (Saturday and Sunday). The MinE faculty and students volunteers are Dr. Syd Peng, Dan Alexander, Kevin Rakes, Sami Stahle, Mike Moten, Cade Mason, Nancy Dorset, Jisheng Han, Jun Lu, Brijes Mishra and Arun Rai.

Mineral kits were provided by the Central Appalachian and Pittsburgh Section of SME.



## Roof Mapping Project at Point Mining, Campbells Creek, WV

MinE and J.H. Fletcher & Co have a joint research project to map roof geology using roof bolter drilling signature while drilling for roof bolt

holes. Underground experiments had been conducted in several southern WV coal mines in the past 4 years.



The roof mapping project team: (Left to right) Dr. Takashi Sasaka, Dr. Syd Peng, Eddie Alford, technician, and Craig Collins, Electronic Engineer, J. H. Fletcher & Co., and David Tang.

## Dr. Khair, Mining Expert and USGS member visits Afghanistan for Resources Restoration

Dr. A. Wahab Khair served as the Mining Engineering Expert as members of Geologic Survey, U.S.DOI., visited Afghanistan as an Afghanistan Reconstruction Team from November 22 to December 9, 2004. Dr. Khair met high-level

government officials, engineers and World Bank Representatives to discuss the revitalization of coal mining for future power plant, privatization of coal operations, and building up the mining industry. He also visited a number of mines to

assess the resources and operational methods used. As a result, he completed a preliminary report for the use of Dara-l-suf coal as the most economical use of natural resources for power plant.



## Seward Electric Generating Station Use Coal Refuse Feedstock

On October 20, 2004 students in Mine Design classes and Dan Alexander visited the 521 MW re-powered Seward Electric Generating Station with representatives of Fluor Engineers and Reliant Energy. Colin Kelly, President of Prairie State Generating Company (a subsidiary of Peabody Coal) set up the trip for us. The Seward Plant burns 3.5 million tons of waste coal per year from refuse areas in mid-PA. It is the largest fluidized bed dual unit in the United States.

Both Peabody and Alstom, who built the steam turbine, made generous contributions to the WVU SME



Michael Proffitt, Reliant's Project Engineering Manager explained the problems with the coal handling system. (Left to right) Mike Mullins, Proffitt, Kevin Rakes, Christian Warfield, Colin Kelly (Peabody) and Bill McKinley, Plant Superintendent.

Student Chapter for this tour and to attend the PCMA/SME Annual Meeting at Southpointe, PA.



## MinE Students and Faculty Participated in MINExpo 2004 in Las Vegas, NV.



Bob Murray, President of Murray Energy Co, OH, chaired underground coal mining session, where Dr. Syd Peng presented a technical paper.



Faculty and Students participated in 2004 MINExpo on September 27-30, 2004, at Las Vegas, NV. The Faculty included Dan Alexander, Keith Heasley, Syd Peng, Felicia Peng, and Wahab Khair. In addition to an exhibit, the faculty also presented two papers: Dr. Syd Peng on roof geology mapping using roof bolters, and Dr. Khair on simulation of CM cutter head optimization.

Many mining Engineering alumni stopped by WVU

MinE Exhibit Booth. The partial list includes Barry Dangerfield (BSEM '72, MSEM '81), Ben Gandy (BSEM '96), Ben Mirabile (BSMinE '01, MSMinE '03), Dan Roman (BSEM '81), Emily Cook (BSEM '99), Gerry Finfinger (PhDMinE '03), Jens Lange (BSEM '84), Jim L. Adamos (BSEM '80), John R. Stoehr (BSEM '80), Mark Schuerger (BSEM '81), Mike Shook (BSEM '81), Pete Vaughan (BSEM '79), Randy Hansford (BSEM '78), Ray Dubois (BSEM '79), Ron Matthews (BSEM '81), Russell Combs (BSEM '79), Steve Sanders (BSEM '93), Keith Smith (BSEM '80), Vinnie Richardson (BSEM '85), Wm. Mark Hart (MSEM '93).

Some WVU non-MinE Alumni also came to the Booth and visited with us. They were Bob Blak (MD '94), Boyd Petry ('94), Ches Latham (ChE '94), Dan Loss ('74), Don Hoylman, Estow Petry ('64), J.G. Cutlip ('02), Richard Silva (ME '94), William Oaks.



Quarry mine in Red Rock Canyon, Las Vegas, NV.



Mark Hart Keith Smith



(Left to right) Drs. Syd and Felicia Peng, Mei Wang and Dr. David Tang (PhDMinE '84). Dr. Tang and his wife, Mei reside in Las Vegas, NV, where David is Senior Geotech Engineer, working on roof bolt corrosion problem related to nuclear wastes underground storage facility, Yucca Mountain, NV for Bechtel SAIC CO, LLC.



BPB Gypsum Mine  
Blue Diamond, NV

MinE faculty and students visited BPB Gypsum mine, Blue Diamond, southeast of Las Vegas were (back row, left to right) Matthew Jordon, Michael Moten, Joe Helbig, Michael Mullins, Bryan Schwalm, Kevin Rakes, Keith Heasley, Syd Peng, Wahab Khair, (front row, left to right) Cade Mason, Lucas O'Neal, Christian Warfield, Felicia Peng, Dan Alexander.

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## Alumni and Friends

Editors: Faculty and staff, MinE Department

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**WE'RE ON THE WEB!**

<http://www.mine.cemr.wvu.edu/>

## Freshman Fall Information Seminar on Mining Engineering Major



**Dr. Heasley and SME Student Chapter President, Kevin Rakes at the Mining Engineering Informational Seminar on November 1, 2004.**

The freshmen informational seminar on Mining Engineering this fall was very successful and helped recruit in one of the largest freshmen Mining Engineering classes in many years. For the first time, all the freshman engineering students are required to attend seminars given by all majors. At the seminar, Dr. Heasley explained some of the details of a career in Mining Engineering while the freshmen enjoyed

pizza and pop. All of the attending freshmen received department T-shirts and a number of door prizes were awarded, including a personal data assistant (PDA).

If you know any students interested in Mining Engineering, please contact at 304-293-7680, Dr. Keith Heasley, [Keith.Heasley@mail.wvu.edu](mailto:Keith.Heasley@mail.wvu.edu), or Dr. Syd S. Peng, [Syd.Peng@mail.wvu.edu](mailto:Syd.Peng@mail.wvu.edu).

## Chair's Message

### Dear Alumni and Friends:

In December 2004, we have seven (7) graduates; one PhD, two MS's and four BS's. The two MS's graduates stayed on and continued for their PhD program, one accepted a job with aggregate industry and the remaining four are working for coal companies in WV.

2004 was a good year for our program. Our faculty received two prestigious international awards: one is the Medal for Excellence by the Institute of Materials, Minerals and Mining in London, UK and the other was the R&D 100 awards by

the R&D Magazine in Chicago, IL For more detail please refer to the stories in Pages 8 & 9.

The Visiting Committee under the leadership of John Murphy is helping the Department to develop a strategic plan by assigning a subcommittee headed by CONSOL's Walt Scheller III. The objective is to develop plans to meet the coal industry's expected strong demand for graduated mining engineers in the near future.

