



MINING FOUNDATION OF THE SOUTHWEST
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MAY, 2014
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CONCENTRATES

Presenting 2014 American Mining Hall of Fame Honorees

Inductee: Armine Frederick Banfield, Jr.

Founder and Chairman, Mintec, Inc.

Medal of Merit: Corale L. and James A. Brierley

Founder and Principal, Brierley Consultancy, LLC USA

Medal of Merit: David E. Nicholas

Co-Founder, Call and Nicholas Inc.

Medal of Merit Young Professional : TBA

Industry Partner: Empire Southwest

Special Citation: Employees of Rio Tinto-Kennecott's Bingham Canyon Mine

Mining's Past:

Patrick E. Connor, Father of Utah Mining

Earl Tappan Stannard, President, Kennecott Copper Co.

Arthur Barrette Parsons, Mining Editor and Author

Ernest R. Dickie, General Manager, Bagdad Copper





2014 American Mining Hall of Fame Inductee

Armine Frederick Banfield, Jr.

Mintec, Inc.

Fred Banfield chose a career in mining after his father, Armine Frederick Banfield, introduced him to the industry. Armine Banfield was a well-known consulting geologist with worldwide experience. His achievements and professionalism served as a model for his son.

A graduate of Colorado School of Mines with a degree in mining engineering, Banfield founded Mintec from his Tucson apartment in 1970 and now presides over a global network of dedicated mining professionals. Still headquartered in Tucson, Mintec now has offices in eight countries and is committed to helping its clients solve their problems with MineSight - Mintec's comprehensive modeling and mine planning platform. The software offers integrated solutions for exploration, modeling, design, scheduling, production and delivers efficiency and reliability to help improve productivity at every stage of a mine's life.

The foundation of Mintec's business plan lies partly in Banfield's considerable wealth of expertise, including auditing reserve calculations and mine plans worldwide; the design and implementation of computerized systems for building geologic models, calculation of grade estimates, mine design, and scheduling; the design of ultimate pit limits and mining schedules for open pit and underground mines based on economic and geotechnical data; calculation of reserves for metals, coal and industrial minerals; and the design and implementation of financial models for mining projects worldwide.

According to MineSight clients, Banfield always seems to be ahead of the industry working on solutions before problems arise. Banfield was the 2007 recipient of the Daniel C. Jackling Award for significant contributions to technical progress in mining geology and geophysics. Under his leadership, Mintec won the 2013 President's E-Award for Exports — the highest recognition any U.S. company may receive for making significant contribution to the expansion of U.S. exports. More recently, Banfield was nominated for induction into the International Mining Technology Hall of Fame for always pushing the boundaries of innovation and research, and for being at the forefront of bringing new solutions to the industry.

Mintec's unparalleled longevity in a highly cyclical industry begins with Banfield applying his passion for mine engineering and computers to solving mine modeling and design challenges. After 44 years, a simple business model remains: Make the client successful.

OUTREACH CORNER by Pam Wilkinson

MFSW Outreach Coordinator Activities: April-May 2014

The school year ended well, with a record number of students participating in presentations and activities, over 8900 students and 90 teachers participated in the school programs this year. In addition, through events such as the Math and Science Experience at Cochise Community College, Science Nights, Imagine STEM, Imagine Engineering through Girl Scouts and teacher in-service trainings, an additional 1000 students and adults were educated about the mining industry. Thanks to a donation from the Tucson Section of SME, I have hired an intern to assist me with the summer camps and in the creation of new materials to be used in classrooms next year and organizing the student outreach for next year. Adrian Patterson, a mining engineering student at the U of A will begin working with me on Tuesday, May 27th.

I continue to be involved with the MineZone program by creating the activities that were used in the classroom. It sounds like they hope to offer the program next year during the school day and focus on one grade level. I plan to continue to be involved in the program, either during the event, or by providing the hands on activities. Freeport-McMoRan Copper and Gold Inc. is working with Discovery Education to create a program on copper mining and I have been included in the discussions and recommendations regarding the content for this program.



Girls Have IT day at Xavier Preparatory Academy



Imagine Engineering



OUTREACH CORNER cont.



Tour at Miami with Discovery Education group and FMI

The chart below covers the schools visited since the last report.

School	City	Students	Adults	Date
Altadena MS	Ahwatukee	303	3	3/20,25,31/2014
Queen Creek HS	Queen Creek	140	1	3/24/2014
Mountainside MS	Scottsdale	117	1	3/26/2014
Summit Academy	Chandler	153	1	3/27/2014
Morenci HS	Morenci	138	3	4/16-17/2014
CDO HS	Tucson	54	1	4/18/2014
Linden Elem.	Show Low	63	2	4/29/2014
Round Valley MS	Eagar	78	1	4/30/2014
Liberty Trad. Elem.	Prescott Valley	82	3	5/5/2014
Liberty Trad. MS	Prescott Valley	75	1	5/6/2014
Brophy HS	Phoenix	88	1	5/9/2014
Red Mountain HS	Mesa	218	2	5/12/2014
Wilson K-8	Oro Valley	209	3	5/14-15/2014
Total		1718	23	

Looking forward to next school year, I already have 19 schools signed up for programs. Thank you again for supporting this outreach program, you people ROCK!

HALL OF FAME 2014

MARK YOUR CALENDAR

32nd American Mining Hall of Fame Awards Banquet & Fundraiser

DECEMBER 6, 2014

Although proceeds from our annual Hall of Fame Awards Banquet and Fundraiser are used primarily to fund the Outreach Program through the Lowell Institute for Mineral Research under the supervision of Dr. Mary Poulton, Distinguished Professor and Department Head of Mining and Geological Engineering of the University of Arizona, proceeds are also earmarked to supplement travel expenses for student chapters at different universities. MFSW is grateful for your continued support and this past year was able to donate funds in memory of a long time Board Member, the venerable Albert Perry, to assist the University of Arizona's SEG Student Chapter and below is the students' acknowledgement.

February 26, 2014

Dear Ms. Brick,

From all of us in the UA SEG Student Chapter, we would like to send you and all of the members of the Mining Foundation of the Southwest our sincerest thanks for your donation to our student group. We are now well on our way to having raised enough money to fund a student-run geology field trip to New Zealand in May!

In the words of Isaac Newton, "If I have seen farther, it is only by standing on the shoulders of giants." We are honored to have the opportunity to stand on the shoulders of Albert Perry and we will happily bring his memory with us to NZ.

Thank you!

J.D. Mings
(President)

C. R. Ruff
(VICE PRESIDENT)

[Signature]
[Signature]

Simone Runyon

Shelby Rada
SECRETARY

James Girardi

[Signature]

Caren Puhak
TREASURER



IN MEMORIAM

Richard T. Moolick

Moolick was a graduate of the University of Arizona, School of Mines and was named a Distinguished Alumnus of the University in 1989. While serving as President and Chief Operating Officer at Phelps Dodge in 1983, he made labor history ultimately achieving decertification of the unions and saving the corporation from bankruptcy. Following a 35-year career with Phelps Dodge, he became the driving force in establishing the National Mining Hall of Fame and Museum in Leadville, CO. Moolick secured the then vacated former Leadville high school building, recruited 100 Founders for the Museum and built a monument to recognize men and women who pioneered the discovery and development of our nation's natural resources. Moolick was the recipient of the museum's 2007 Prazen Award for his role in educating the public of the importance of mining and was presented the AIME's William Lawrence Saunders Gold Medal in 2001 "in recognition of a lifetime of distinguished contributions to the mining industry, particularly for his leadership of Phelps Dodge and as a founder of the National Mining Hall of Fame and Museum."

BOARD OF GOVERNORS NEWS

P.K. Rana Medhi

Following many years of dedicated service, Medhi has resigned from the Governing Board. MFSW wishes to acknowledge his sound advice and innovative leadership and will miss his council and foresight.

CALENDAR

Golf Tournament, Monday, 7/21/2014

Thunder Canyon Country Club

University of Nevada , Reno

Funds raised through this annual golf tournament are used to recognize Westfall Scholars—the brightest graduating seniors from each department of the College and are also used to recruit promising graduate students to pursue their advance degrees from the College of Science. Interested parties should contact www.unr.edu/science/golf-tournament-registration.

**2014 MFSW MEMBERSHIP IS NOW PAST DUE.
RENEWAL FORM IS ATTACHED .**