



MINING FOUNDATION OF THE SOUTHWEST

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JANUARY, 2018

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CONCENTRATES

Members of the 2017 Hall of Fame Committee wish to express their heartfelt thanks to all the sponsors and guests for making the 35th Annual American Mining Hall of Fame Banquet & Fundraiser a resounding success.. About 460 guests were present to celebrate Gary Goldberg's induction into the American Mining Hall of Fame. Goldberg is the President and CEO of Newmont Mining Corporation and has served the mining industry since 1980.

Along with Goldberg, four past mining industry stalwarts, Henry Lesinski, Frank Murphy, Lee Allison and Kathy Whitman, were also inducted. Members of the Murphy, Allison and Whitman families were present for the ceremony.

In addition, Medals of Merit were presented to John C. Lacy, Shareholder, Deconcini McDonald Yetwin & Lacy, P.C and Director, Global Law Center, U of A. and to Eben Robinson, Area Manager, Arizona and New Mexico, Southwest Energy LLC for their current respective contributions in advancing the always evolving mining sector.

SRK Consulting, an international and independent engineering consulting company was the recipient of the Industry Partnership Award.

THANK YOU 2017 SPONSORS

PLATINUM

Freeport-McMoRan Inc., Independent Mining Consultants, Inc.,
Komatsu America Corp., M3 Engineering & Technology Corporation,
Mining & Metallurgical Society of America, Ruen Drilling,
SRK Consulting

GOLD

Arizona Mining Association, ASARCO—AMC—Grupo Mexico., CTI, Doosan Bobcat, Empire Southwest, Epiroc—Part of the Atlas Copco Group, Golden Vertex Corp, Meridian Engineering Company, Mined-Out, Modular Mining Systems, Inc., Newmont Mining Corporation, Southwest Energy LLC

SILVER

Apache Nitrogen Products Inc., Arizona Mining Inc., Bill & Molly Assenmacher, DeConcini McDonald Yetwin & Lacy, P. C., Engineering & Environmental Consultants Inc. (EEC), Fennemore Craig P.C., Gas Cleaning Technologies (GCT), George A. Tsiolis-Attorney at Law, Golder Associates, Hexafon Mining, , Hudbay Minerals Inc., Lhoist North America, Liebherr Mining Equipment, Inc., Montgomery & Associates, Motion Metrics International, National Mining Hall of Fame & Museum., Orica, Origin Mining Company LLC, Professional Minerals Development LLC, Pinto Valley Mine Corp., Quarles & Brady LLP, SUNDT Construction, Inc., WAAIME, Westland Resources, Inc., Yellow Jacket Drilling Services.

OTHERS

Industrial Automation Services Inc., E3 Strategies LLC, Lawson HR Consulting Services, Southern Arizona Business Coalition, Split Engineering.

*A BIG Thanks
to our Sponsors!*

MESSAGE FROM OUTGOING PRESIDENT, Tom Aldrich

I am very honored to begin serving as the Executive Director of the Mining Foundation of the Southwest. With the mining industry experiencing a resurgence and the price of copper exceeding \$3.00, we can hope that 2018 will be a good year and that support for the Mining Foundation will continue to be strong. 2017 was another good year for the Annual Mining Banquet, thanks to the efforts of the Hall of Fame Committee. I am very excited to support David Travis as the incoming President and have great expectations for the coming year. I thought that Eben Robinson's words from last year's message were worth repeating — "Our industry is the most basic means of fighting poverty and improving living standards around the world. Mining provides people with the materials they need to electrify their homes, drive to the local hospital in an emergency, run clean water out of the taps, remove and treat wastewater, and so on. Mining will continue to provide for the public, and MFSW will continue to fight the misinformation campaign that attempts to demonize an industry that has done so much good for the world. " Drop the mike!



2018 ANNUAL MEETING

Date: Wednesday, February 07, 2018

Time: 3:00p.m. — 5:00 p.m.

Place: ASARCO Training Center

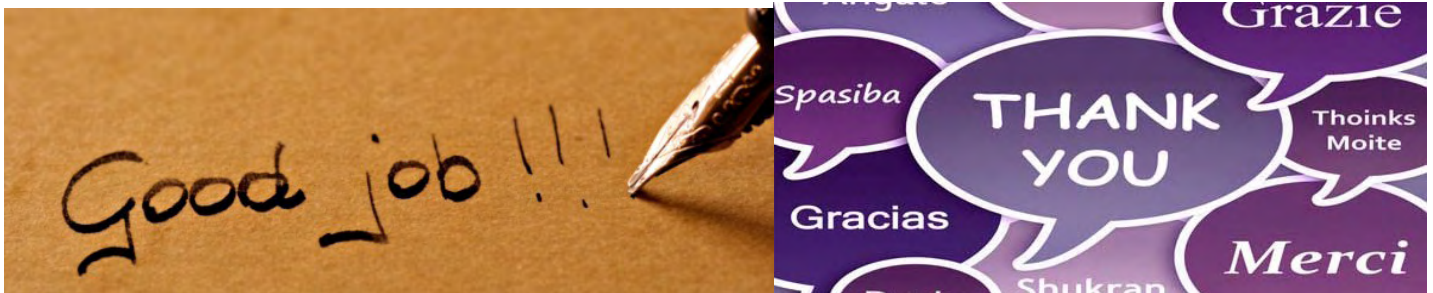
1150 N. 7th Ave., Tucson, AZ

RSVP: admin@miningfoundationsw.org

OR

520-577-7519





Amanda Brick

Thanking someone refers more to actually expressing your appreciation verbally.

Appreciation usually is a deeper, slightly more serious way of thanking someone

So while the difference is minor, the main difference is in the "depth" or the "way" in which "appreciation" is communicated and to what level the appreciation is. You would not normally say something like "I appreciate all that you've done for us" to someone who has only done something minor. That would be weird.

Where Amanda Brick is concerned, there is nothing minor in all the things she accomplished during her stay at the MFSW. Amanda's approach to getting things done the way they should be is unbeatable. Much of the success was due to her skill and hard work. We all really appreciate the time and everything that Amanda has done openly and behind the scenes to keep the MFSW poised for success in the future.

So here's hoping for all the best in your future endeavors and please know that you are always welcome at the MFSW.



ANNUAL MEMBERSHIP NOW DUE

Please sign on to <http://miningfoundationofthesouthwest.wildapricot.org/join> to renew your 2018 membership. Those who still prefer to renew membership by checks should continue to forward payments to P.O. Box 42317, Tucson, AZ 85733. **Your donations are tax deductible to the extent allowed by law.**

SEEN AND HEARD AT THE 35th AMERICAN MINING HALL OF FAME AWARDS BANQUET



Inductee Gary Goldberg (r) with Tom Aldrich, 2018 MFSW President.



Gary and Beth Goldberg with family.



John Lacy, Medal of Merit recipient, pictured here with wife Terry.



Medal of Merit under 40 honoree, Eben Robinson with wife Irene.



Terry Braun, SRK Practice Leader from Denver flanked by fellow employees



2017 Inductee Gary Goldberg with U of A students.



In attendance were Mark Whitman and Karen Tritt, brother and sister of Mining's Past Inductee, Kathy Whitman.



Brad Murphy and Megan Winslow ,great-grandchildren, of Mining's Past Inductee, Frank Murphy were also present .



Ann Becker, wife of Mining Past Honoree Lee Allison, accepts the commemorative plaque from Tom Aldrich.



MFSW stalwarts Doug Austin, Roshan Bhappu, Perrin Bhappu and Jean Austin.



Pictured here are Larry Dykers, David and Edith Lowell and Bob Metz, long time MFSW supporters.



University of Arizona students, all guests of generous sponsors.



The lucky winner of the three-volume compilation titled "History of Mining in Arizona".



Robin Barnes presents Vanessa Whitesell two sets of 4 Tucson Roadrunner Hockey tickets donated by Epiroc.



Walter Freischlad is happy as a clam winning a certificate for a 2 night stay at the JW Marriott Starr Pass Resort & Spa.



Ready for a "high five" after winning 50,000 Marriott Points is this happy raffle winner



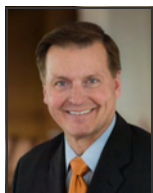
Robin Barnes with Dawn Sabers who won the Pit Viper drill-rig model donated by Epiroc.



Will Wilkinson, MFSW Governor, and Pam Wilkinson, MFSW Outreach Coordinator enjoying the evening,

- The 35th American Mining Hall of Fame Awards Banquet & Fundraiser recorded a net profit of almost \$111,000.
- Fifty sponsors generously donated to the Foundations' Education Program affording the MFSW to continue underwriting its Outreach Program and offering additional financial supplement to various SME & SEG student chapters.
- Inductee Gary Goldberg received a standing ovation on his official induction into the American Mining Hall of Fame.
- Five lucky raffle ticket winners received a set of the History of Mining in Arizona books, 50,000 Marriott Awards points, a 2 night complimentary stay at this JW Marriott Starr Pass Resort, courtesy of Epiroc, part of the Atlas Copco Group, 2 sets of four Tucson Roadrunners Hockey tickets and also donated by Epiroc the Pit Viper Module.
- Amanda Brick was recognized for her 5 years of service as Executive Manager of the Mining Foundation of the Southwest..
- About 50 faculty members and students from the University of Arizona were guests of the 35th Annual Banquet, thanks to the generosity of the sponsors and to our Inductee, Gary Goldberg.

Below are the tribute videos on all 2017 honorees:



Inductee Gary Goldberg

<http://www.miningfoundationsw.org/page-1847230>



Medal of Merit, John Lacy

<http://www.miningfoundationsw.org/page-1847225>



Medal of Merit Under 40, Eben Robinson

<http://www.miningfoundationsw.org/page-1847225>

Inductees from Mining's Past

<http://www.miningfoundationsw.org/page-1847226>

Industry Partnership, SRK Consulting

<http://www.miningfoundationsw.org/page-1847228>



MFSW Seeking Outreach Coordinator

Pam Wilkinson has announced that she will be retiring in the next 6 to 12 months. As such, the MFSW in cooperation with the Lowell Institute for Mineral Research at The University of Arizona is seeking a qualified individual for full employee with benefits through the University of Arizona. Job Number A22326 has been posted by the U of A at:

<https://uacareers.com/postings/26113>.

If you know of anyone who may be interested, please forward them the link to this website. The job opening will be posted until February 1 or have them call Tom Aldrich at 520-577-7519.

OUTREACH CORNER by Pam Wilkinson

MFSW Outreach Coordinator Activities: mid-October-December 2017

The last quarter of 2017 went very well, school visits were quite successful, and two Mining in Society Merit Badge workshops continue to be a great way to spread the word about the mining industry. Over 3400 students and 36 teachers participated in presentations and hands on activities in schools. One of the big changes with respect to the merit badge workshops, is Freeport McMoRan has reached out to the Girl Scouts and they are now being included in these events. The issue was(is), the Girl Scouts do not have a merit badge about mining. I put together a preliminary badge for them for the first ever event during the workshop at Sierrita. It met with great success, the girls and their leaders were very impressed. I am working with the two Girl Scout Councils in Arizona to refine the badge and to see if we can work with National Girl Scouts to get mining in their program. I am also on the committee within SME to facilitate the creation of a badge on the national level for Girl Scouts about mining.

Below are the details of the schools visited October-December 2017:

School	City	Students	Adults	Date	days	classes
Mohave HS	Bullhead City	249	2	10/3-4/2017	2	10
Young Scholars Academy	Ft. Mohave	70	1	10/5/2017	1	3
Sunrise Mountain HS	Peoria	100	1	10/10/2017	1	3
Mountain Ridge HS	Glendale	234	2	10/24-25/2017	4	8
Aprende MS	Chandler	105	1	10/26/2017	1	4
Alta Loma	Peoria	93	1	11/3/2017	1	3
Desert Shadows MS	Phoenix	128	1	11/6/2017	1	4
Pinnacle HS	Scottsdale	305	2	11/7-8/2017	2	10
Sonoran Heights Elem.	Surprise	94	1	11/9/2017	1	4
Show Low HS	Show Low	118	1	11/12/2017	1	6
Desert Shadows MS	Scottsdale	318	3	11/14-15/2017	2	11
Sonoran Trails MS	Cave Creek	378	3	11/17,20-21/2017	3	14
Bogle Jr Hi	Chandler	467	5	11/27-20/2017	4	16
Bogle Jr Hi	Chandler	119	1	12/5/2017	1	4
Fountain Hills HS	Fountain Hills	42	2	12/6/2017	1	2
Newell Barney MS	Queen Creek	179	2	12/7-8/2017	2	7
Flowing Wells Jr Hi	Tucson	394	6	12/12-15/2017	4	11
Western Peaks	Surprise	75	1	12/19/2017	1	3
Total		3468	36		33	123

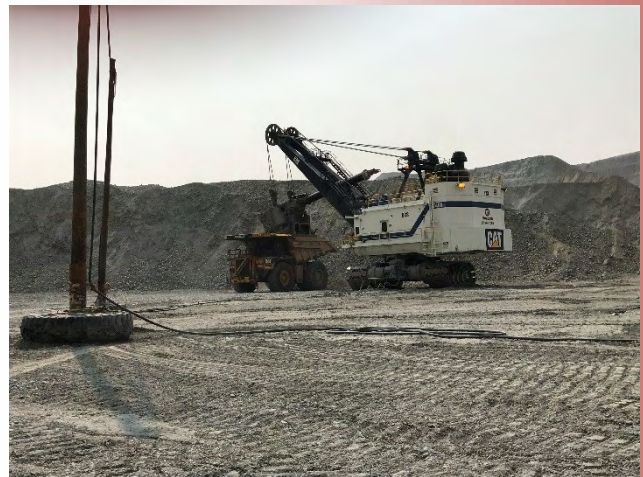
SME Arizona Conference Workshop – Developing Diversity in the Mining Workplace

I participated in the first ever Diversity in Mining Workshop. It was very successful and there is a move to have this become a part of the conference on an annual basis. Speakers at the workshop were quite a diverse group and provided information that led to stimulating discussions. The only disappointment was the lack of time needed to fully discuss all the subjects covered by the presenters: from how to level playing fields, and address unconscious bias, to switching from a focus on diversity to a focus on inclusion (diversity is a fact, inclusion is a choice), and how to change the promotion/retention matrix to recognize diversity. This workshop was a good start, but just a start. I am in hopes they do manage to get a full day workshop at future Arizona Conferences and would encourage all the MFSW members to attend. I am certain many of you have ideas that would be beneficial to creating a more diversified mining industry.

OUTREACH CORNER CONT.

As a member of the products and services committee of SME I attended the mid-year meeting in Butte, Montana and was able to tour Montana Resources Continental Mine and took photos that I include in presentations to help students understand the size of mining equipment. In my birdseed mining activity, the students always want to know why the shovel costs so much more than the truck.

These pictures show that perfectly:



These photos, taken on the same trip, are used to illustrate how the control rooms at mines have changed over time:

Historic control rooms:



Modern control rooms:



The spring semester is shaping up to be packed with school visits, and an increasing number of them are in high school engineering classes. It has taken a long time to get into the high schools, and I look forward to increasing these visits as the word spreads that I travel across the state and have materials to offer the high school engineering, environmental and chemistry classes.

MEMBERS' CORNER

Welcome New Members

Kathy Arnold—Director of Environment at Hudbay Minerals Inc.

Doug Arnold—Process Control Engineer at ASARCO

Husband and wife Doug and Kathy Arnold just recently joined the MFSW. Doug has worked at Asarco Silver Bell since 1998 and is a Tucson native who was born when his dad was working at Silver Bell. Kathy has 30 years of experience in the environmental arena working first at Asarco, doing some consulting and then spending the last 10 years permitting the Rosemont Copper Project.

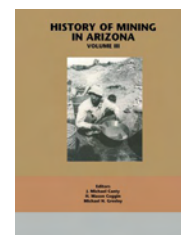
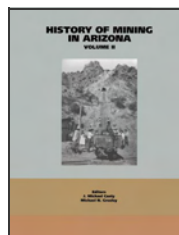
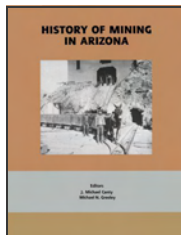
Dan Johnson—Vice-President | General Manager - Florence Copper Inc.

Dan has been in the mining industry for almost 30 years with stops at FMI, Quadrafnx and most recently Florence Copper where he has diligently been pursuing permits in order to commission the operation,

Jill R. Nelson—Brooks and Nelson

Jill is a Mining Engineer graduating from SDSM&T who started her career with Shell Mining Company. She moved into the waste industry for BFI and spent three years fundraising for SDSM&T, focusing on the mining sector. She then segued into recruiting in the mining industry in 2008.

Last Thoughts—Mining History—by William E. Hawes



At this time, it seems that history is being short changed- be it in our schools or news reports, with the possible exception being if it can be used for reality television. What history does see the light of day is almost always sanitized, so it is politically correct or can be directed towards promoting causes.

Thus, having vented my frustrations, I will now offer a plug for remembering those who have contributed to mining. This cause is carried forth by several organizations with the leading ones being ours, through the American Mining Hall of Fame, as well as the National Mining Hall of Fame & Museum (in oxygen depleted Leadville, CO) and the Mining History Association, which is an all-volunteer organization without a formal headquarters. Local and regional museums also offer limited recognition.

The first two organizations have Halls of Fame, recognizing those whose efforts have led our chosen profession to where it is today, are memorialized, both by plaques and/or by digital means. The Mining History Association recognizes people and achievements through papers either presented at an annual meeting or in their annual journal.

Our organization, through the American Mining Hall of Fame, currently recognizes members of the profession who have not been recognized elsewhere and have made major contributions to our industry, such as mineral discoveries and/or financing same; invention of equipment or processes that have made mining viable, or prominent educators in the field.

In our annual banquet, we recognize individuals from these fields, and present brief videos of their lives and accomplishments. The American Mining Hall of Fame endeavors not to be a "me too" organization, and tries to find individuals whose contributions have been overlooked by others.