



MINING FOUNDATION OF THE SOUTHWEST  
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# CONCENTRATES

## 2018 American Mining Hall of Fame Slate of Honorees To be Honored on December 1, 2018

- Main Inductee:** **Mr. Harry M. (Red) Conger, IV**  
President of Freeport-McMoRan Americas  
Freeport-McMoRan Inc.
- Medal of Merit:** **Dr. Hugh Miller**  
Associate Professor in the Department of Mining Engineering  
Colorado School of Mines and Technology
- Medal of Merit Under age 40:** **Marian LaLonde**  
Partner  
Quarles & Brady LLP
- Bjorn Meyer**  
Mine Manager  
ASARCO LLC
- Industry Partnership:** **SUNDT Construction, Inc.** Is one of the largest and most respected general contractors, with offices in Arizona, California, Texas and Utah and is currently ranked in the top 100 general contractors by ENR.
- Special Recognition:** **Southern Arizona Business Coalition** is a not-for-profit corporation, promoting a sustainable business environment and mining projects that encourages the responsible development of natural and human resources.
- Inductees from Mining's Past:** **M. Andrew Prichard** was the "Pioneer" of the Coeur d'Alene mining district. He made the initial discovery of gold on Prichard Creek on the North Fork of the Coeur d'Alene River.
- William H. Peirce & E.A. Cappelen Smith** were co-inventors of the Peirce-Smith converter, still in use at most copper smelters today.
- Medora Hooper Krieger** was one of the first female field geologist with the USGS coming to Prescott, Arizona in 1947 becoming one of the most prolific geologic mappers at the USGS during the twentieth century.
- Robert Scanlon** was a hoist man who died at the controls of the #10 Shaft's hoist in 1972 attempting to hoist miners from the lower levels of the Sunshine Mine during the country's second worst metal mine fire.

## 2018-19 Executive Board, Committee Chairs & Governors Named



**David Travis - President**

Travis received his B.S. in Mining Engineering from The University of Arizona and has been a member of the MFSW since 2014 and on the Board of Governors since 2015. Starting out as a Lab Technician, his vast experiences in mining have taken him from California to Arizona to New Mexico down to Peru and Chile and back to Arizona, each time being entrusted with positions of greater responsibility. Travis was appointed as the Vice President for Mine Planning for Freeport-McMoRan Copper & Gold Inc. in 2009 overseeing the Centralized Mine Planning Group between the Phoenix Corporate office and the Oro Valley Office to provide mine engineering support and production optimization. He is a member of SME.



**Chris Wilson—Vice President & Hall of Fame Chairman**

Wilson received his B.S. in Mining Engineering from The University of Arizona and has been a member of the MFSW since 2016. During his college years he spent summers working as an intern at various mines in the southwest and also interned while going to school. He started his career with Freeport-McMoRan at the Miami Mine and subsequently spent time in various positions with FMI at Sierrita and Morenci. In 2017 he became a Technical Sales Engineer for IEC Supply catering to mining & related heavy industry accounts in the Southern Arizona, New Mexico, and Kingman Area. He is a member of SME.



**John Fenn—Treasurer**

Fenn received his B.S. in Mining Engineering from the University of Arizona. He worked for various national and international mining companies both in the U.S. and abroad including Duval Corporation, Cyprus Minerals Company, Cyprus AMAX, ASARCO, Phelps Dodge Mining Company, and Freeport McMoRan Inc. His last assignment prior to retiring was serving as Division President, Africa, for Freeport McMoRan. Fenn was an Adjunct Professor at the University of Arizona, College of Engineering, and was also a Director on the Boards of the Arizona and Colorado Mining Associations. He is now a consultant in the mining industry and serving a second term as MFSW's Treasurer.

**Andrew Soderman – Secretary**



Soderman received his Mining Engineering degree from the University of Arizona and, following graduation, was employed by Cyprus Miami Mining as an entry level Mine Engineer. In 2004, he joined Phelps Dodge as a Senior Mine Engineer and since then has been with Freeport-McMoRan entrusted with increasing responsibilities beginning as the Chief Mine Engineer at the Bagdad operations, to becoming the Technical Services Superintendent in Chile, to serving as the Senior Superintendent of Mine Operations in Tyrone, to being named the Mine Manager first at Safford and now at Freeport-McMoRan's Sierrita Operations. Soderman is serving a second term as MFSW's Secretary.

## **Committee Chairs**

**Finance Chair - Ron Roman**

**Foresight Chair - Don Earnest**

**Nominating Chair - David Travis**

## **Terms of Board of Governors**

**Term expires: February, 2019**

**Jean Austin**

**Mark Baker**

**Roshan Bhappu**

**Robin Barnes**

**Don Earnest**

**Ronald Roman**

**Andrew Soderman**

**Term expires: February, 2020**

**Amanda Best**

**John Fenn**

**Corolla Hoag**

**Rebecca Martinez**

**Terry McNulty**

**Donald R. Taylor**

**William H. Wilkinson**

**Term expires: February, 2021**

**Bill Hawes**

**Martin C. Kuhn**

**Nyal Niemuth**

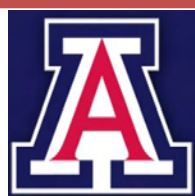
**Brad Ross**

**Luiz Steinberg**

**David Travis**

**Chris Wilson**

**Rod Woodcock**



# LOWELL INSTITUTE FOR MINERAL RESOURCES

## OUTREACH CORNER BY PAM WILKINSON

2018 is off to a great start with school visits, annual SME meeting and new activities all taking place. Over 2,600 students and 30 teachers participated in classroom events the first quarter of the year. I assisted a cub scout troop in earning their geology badge and taught the adults associated with the troop about mining and the uses of minerals and rocks. High school engineering classes have been added this quarter. It has taken a long time to get these teachers to invite me into their classes, so I am very pleased that it is finally happening. See the table below for the details:

School	City	Students	Adults	Date	days	classes
Sal Pointe HS	Tucson	60	1	1/12/2018	1	4
Casteel HS	Chandler	162	1	1/17-18/2018	2	5
Ironwood HS	Glendale	93	1	1/20/2018	1	4
Mogollon Jr Hi & HS	Heber	194	2	1/23-24/2018	2	9
Verrado MS	Verrado	262	2	1/25-26/2018	2	8
Perry HS	Chandler	68	1	1/30/2018	1	3
Brophy HS	Phoenix	228	4	1/31-2/1/2018	2	7
Emily Gray Jr Hi	Tucson	150	3	2/5/2018	1	6
San Simon	San Simon	56	1	2/6/2018	1	4
Pusch Ridge Academy	Tucson	16	1	2/8/2018	1	1
Sunnyside HS	Tucson	142	1	2/13-14/2018	2	5
Sonoran Trails MS	Cave Creek	35	1	2/15/2018	1	1
Saguaro HS	Scottsdale	108	1	2/16/2018	1	4
Fox Creek MS	Bullhead City	152	1	2/20/2018	1	6
Young Scholars Academy	Bullhead City	66	1	2/21/2018	1	3
Copper Basin Elem	San Tan Valley	170	1	3/5,13/2018	2	6
Estrella Mtn. MS	Goodyear	120	2	3/21/2018	1	4
Walden Grove HS	Sahuarita	227	2	3/22-23/2018	2	9
Round Valley MS	Springerville	95	1	3/27/2018	1	4
Snowflake HS	Snowflake	146	1	3/28/2018	1	6
Blueridge Jr Hi	Pinetop	80	1	3/29/2018	1	3
<b>Total</b>		<b>2630</b>	<b>30</b>		<b>28</b>	<b>102</b>

## Outreach Corner Cont.

And the good news is the program seems to be working! The high school teacher at Snowflake High School shared with me that her son-in-law, who I taught when in Morenci High School, changed his mind about becoming a truck driver at the mine. He completed an engineering degree at Northern Arizona University and is now working at the Safford Mine. What he heard from me and encouragement from that science teacher convinced him he could be successful at university. And the engineering teacher at Pusch Ridge Academy has recommended me to the environmental science teacher there. She has requested a presentation on Resolution Copper. Sounds like they are doing a whole unit on mining in the community. This is a wonderful opportunity to hopefully impart some facts into students who might otherwise be inclined to be against the mining industry.

In addition to my outreach my interns have done a great job of explaining mining in several settings. See the table below for their numbers. I am so grateful to the Tucson Section of SME for continuing to support interns for my program.

event	location	students	adults	date
Mining on the Mall	University of Arizona	10	5	1/23/2018
Mining on the Mall	University of Arizona	20	5	2/1/2018
Children's Museum SciTech Fest	Tucson Children's Museum	125	30	2/10/2018
Pima Outreach Presentation	Pima Desert Vista	25	1	2/13/2018
Pima Outreach Presentation	Pima Desert Vista	25	1	2/14/2018
Pima Outreach Presentation	Pima West	25	1	2/19/2018
Pima Outreach Presentation	Pima Desert Vista	25	1	2/20/2018
Total		255	44	

As a member of the products and services committee, I attended the annual SME meeting in Minneapolis this February. I am also on the Minerals Education Coalition Boy/Girl Scout subcommittee. We met at the annual meeting and are moving forward to provide the Girl Scouts with a mining merit badge. This new opportunity has me very excited. As reported earlier, I have already been working with the Girl Scouts in Arizona, but now will have the opportunity to get involved with Girls Scouts on the national level; this is very exciting.



## Outreach Corner Cont.

*Photo from Verrado Middle School: note the mining poster and geologic map on the wall in the classroom: materials I supplied the teacher. The students are participating in the birdseed mining activity.*



Children's Museum SciTech Fest

Mining Day at the Capitol 2018



## MEMBERS' CORNER

### Welcome New Members

**2018 has been great so far in terms of garnering new members for the Foundation. Through March 31 we have gained 29 new members. Thank you all for your support of the MFSW. Total membership is at 107 and growing. Help us get bigger and stronger and healthier. Go out and find a new member. The Outreach Program needs your support!**

#### **Gary Bagnocche - Retired Assistant Vice President, Capital Projects, University of Arizona**

Bagnocche worked for the U of A for over 30 years in construction management and was responsible for many of the buildings you see on campus as well as the U of A's Phoenix Biomedical Campus. He is an active member on his homeowners association as well as the board of the Fox Theater and is currently the President of the Southern Arizona Blues Heritage Foundation.

#### **Mark Barton, Co-Director of the Lowell Institute for Mineral Resources, University of Arizona**

Barton is a renowned economic geologist and petrologist. He serves as Director of the Center for Mineral Resources and a co-founder of the Institute for Mineral Resources. He has been instrumental in driving innovative research applied to ore deposits in North and South America for nearly 30 years.

#### **Curtis Bilow, Corporate Director-Freight Rail/Regional Industrial Manager, Ames Construction**

Bilow has been working in the construction industry throughout the state of Arizona since 2003, holds a degree in Construction Management from Ferris State University and has over 20 years of field experience. Soon after joining Ames Construction in 2005, he transitioned from managing projects in the transportation sector to leading construction projects in mining. In 2006, he became the Project Manager on the Safford Leach Pad Project and has lead numerous mining projects ever since. Bilow is currently the Southwest Regional Industrial Manager for Ames Construction, tasked with overseeing all mining projects for the region.

#### **Jeremy Browning, Director of Government Relations, GovGroup**

Browning graduated Summa Cum Laude from Arizona State University with a Bachelor of Science in Political Science and a Minor in History. He has extensive experience at the Arizona State Legislature and provides support for the Government Relations team and represents the firm's clients, including Asarco, at the Arizona Legislature. Jeremy's responsibilities include legislative tracking, lobbying, and on-the-ground information gathering and analysis.

#### **Avi Buckles, Archeologist, Westland Resources, Inc.**

Buckles, M.A. is a historical archaeologist and an Associate in the Cultural Resources Division at Westland Resources, Inc. in Tucson. He received his degree in history from Arizona State University, and specializes in mining history and the archaeology of mining camps. He has worked on a variety of projects in Arizona and New Mexico including key mining-related projects. Using archival research, archaeology, and oral history, Mr. Buckles seeks to create compelling narratives on the Southwest's numerous historic mining camps.

## MEMBERS' CORNER

### Welcome New Members (continued)

#### **Steven (Scott) Burkett, Geologist, Titan Mining Corporation**

Burkett joined Titan in March 2018, and has over 10 years of experience in mineral exploration, ore control, geologic modeling, resource estimation and database management. Mr. Burkett earned his BSc in Geology from the University of Idaho, and has since worked on a number of base and precious metal exploration projects at various stages, ranging from grassroots to advanced exploration. Prior to joining Titan Mining, he worked for Arizona Mining where he served as Chief Geologist for the Hermosa Project.

#### **Andrew Cunningham, Geological Consultant, Arizona Minerals Inc.**

Cunningham is an experienced consultant with a history of working in the mining & metals industry with emphasis in mining law and policy, management, environmental science, teamwork and leadership. He has a Master in Mining Law and Policy and a Bachelor of Science (BS) focused in Physical Geography with minor in Geology from University of Arizona.

#### **Bryon Freed, Director of Global Mining, QuakeWrap, Inc.**

Freed holds a BS in Mining Engineering from the University of Arizona and has worked in the mining industry for 10 years. He joined QuakeWrap in 2017.

#### **Fiorella Giana, Haulage Manager at Sociedad Minera Cerro Verde, FMI**

Giana attended college at Missouri University of Science and Technology. Upon graduation she joined Phelps Dodge at Chino Mines as an entry level Mine Engineer. She subsequently transferred to Morenci and became the Chief Engineer. In 2014 she was named Mine Manager at Bagdad and was honored by the MFSW in 2015 with a Medal of Merit under 40 award.

#### **Sydney Hay, Executive Director, AMIGOS**

Sydney is the Executive Director of AMIGOS, and a Public Affairs Professional with a diverse client portfolio. Sydney is a champion for the mining industry -- a wealth creation engine for Arizona. AMIGOS members represent the best in Arizona business, and include heavy equipment firms, machinery suppliers, metal recyclers, construction companies, banks, manufacturers, transportation firms, tire dealers, chemical companies, engineering firms, insurance firms - a wide spectrum of the business community.

#### **Steve Holmes, Mining executive/Consulting**

Holmes has over 30 years experience in hard rock mining and processing including mine planning, operations, maintenance, management and downstream smelting and refining operations in copper, molybdenum, gold and silver. During his career he has worked for Phelps Dodge, FMI, Asarco and KGHM as well as having his own consulting business.



## MEMBERS' CORNER

### Welcome New Members (continued)

#### **Jim Hurley, Sales Rep, Pioneer Equipment, Inc.**

Hurley is a sales professional with Pioneer Equipment who has been working in the mining industry for nearly thirty years specializing in industrial pumps and air compressor systems. In addition, Jim is also the owner of Red Diamond Media Group, a multi-faceted media services company that specializes in multi-camera event coverage, safety and compliance videos as well as photographic and aerial imaging.

#### **John Krenzel,**

Krenzel has a diverse background in mechanical and mining engineering and has worked for the last 5 years in underground coal, surface gold and copper, and as an instructor with Penn State's Mining Engineering program. A life-long student of mining history, he has spent many hours underground in the Pennsylvania anthracite region, assisting with tour mine maintenance. He resides in the Burro Mountains near Silver City, NM.

#### **Scott Lawson, Principal, Lawson Consulting Services**

Lawson is a Human Resource professional serving the Mining Industry in both surface and underground operations for over 40 years with emphasis on mine startup and associated development of competitive wage and benefit programs, position descriptions and Physical Demands Analysis, recruiting strategy, staff, recruiting and succession planning, employee manual guidelines and preparing general site policies and procedures .

#### **Eric Mears, Market Segment Leader, Haley & Aldrich**

Mears has nearly 30 years of experience in environmental and water resources services for the mining industry. While managing and coordinating complex mining projects in the United States, Canada, and Mexico, he has successfully negotiated permits, authorizations, and entitlements with agencies at the local, state, tribal and federal level. Known for innovative problem solving and consensus-building communications, Eric specializes in resource and asset evaluation, strategy development, community relations and regulatory negotiations.

#### **Dawn Meidinger,**

Meidinger practices in the area of natural resources, real estate and environmental law, with a focus on mining, public land utilization (state and federal) and permitting. In the natural resources sector, she has extensive experience permitting mining, renewable energy and linear projects handling all aspects of NEPA, NHPA, and ESA.

#### **Krishna Parameswaran, President, tfgMM Strategic Consulting**

Parameswaran received a Bachelor of Technology degree in metallurgical engineering from the Indian Institute of Technology, Bombay, a Master of Science degree in metallurgical engineering from the University of Missouri-Rolla in and a Doctor of Philosophy in metallurgy from Pennsylvania State University. He is a licensed professional engineer in Pennsylvania. And worked in a variety of responsible positions for Asarco for over 30 years.

## MEMBERS' CORNER

### Welcome New Members (continued)

#### **Elizabeth Pirooz, Geologist, Arizona Mining**

Pirooz has a BS in Geological and Earth Sciences/Geosciences from Arizona State University. She has worked as an independent contractor.

#### **David Rhoades, General Manager, Freeport-McMoRan**

Rhoades has a BS in Mining Engineering from the University of Arizona. He started his career at Modular Mining Systems, moved to Asarco Mission as a Dispatch Engineer and then held various responsible positions with Phelps Dodge in Morenci. He became the General Manager at Chino for FMI in 2004, served as the General Manager SE Arizona Administration for 6 years. He spent a year at Safford as the General manager and most recently was appointed the General manager at Sierrita in 2016.

#### **Shahram Tafazoli, President & CEO, Motion Metrics International Corp.**

Motion Metrics International was founded by Dr. Shahram Tafazoli after graduation from the Electrical and Computer Engineering Department of the University of British Columbia in Vancouver, Canada, in January 1997. The idea behind starting the company was to apply such advanced technologies as Robotics, Estimation, Image Processing, and Embedded Machine Vision to the heavy-duty industries.

#### **Lyn Thomas, Owner, Pioneer Equipment**

Thomas is the owner of Pioneer Equipment and brings over 35 years as a distributor and servicer of air compressors, pumps, system controls and equipment in the mining industry.

#### **George Tsiolis, Attorney. Tsiolis Law**

Tsiolis brings over thirty years of experience in law and science to bear on behalf of clients engaged in environmental permit and enforcement proceedings and commercial transactions influenced by environmental law. He holds a B.A., in Chemistry from Vas-sar College, a M.S., in Environmental Science from Rutgers University and his J.D., Law from Arizona State University.

#### **Jim Tress, President & CEO, Westland Resources, Inc.**

Tress, is one of the founding principals of WestLand, and has been working in the environmental field since 1984. Jim has headed the company as President of WestLand since its inception and was recently named CEO. Under his stewardship, WestLand has grown from a single office in Tucson to a company of over 120 employees with additional offices in Phoenix, Flagstaff, and Globe.

## MEMBERS' CORNER

### Welcome New Members (continued)

#### Bill Wahl, Asarco—Retired

Wahl retired after 38 years with Asarco in 2014 and is presently a Sales & Marketing consultant for SA Services LLC servicing the sulfuric acid industry. He is a graduate of the SDSM&T with a BS in Metallurgical Engineering and has a MS from the University of California at Berkeley.

### AZGS Releases "History of the Verde Mining District, Jerome Arizona

The Arizona Geological Survey's newest Contributed Report is an illustrated, 85-page paper on the geologic setting and history of copper-zinc-gold and silver mining near Jerome and Clarksdale in central Arizona. Today's Arizona Geology blog post, The men, mines, and geology of the Verde Mining District, Jerome, Arizona, summarizes that report.

<http://blog.azgs.arizona.edu/blog/2018-04/men-mines-and-geology-verde-mining-district-jerome-arizona>

Geologist and mining historian David Briggs', 'History of the Verde Mining District, Jerome, Arizona', traces the history of mineral exploration near Jerome from the Spanish discovery of copper in A.D. 1583 to recent remediation efforts of Freeport McMoRan c. 2010.



**Annual membership renewal is now past due. Please renew online or send your payment to the Foundation Office.**