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CONCENTRATES

December Awards Banquet to Induct the 2019 Honorees

Darren M. Pylot, President and Chief Executive Officer, Capstone Mining Corp. Inductee



Darren M. Pylot is a mining entrepreneur and businessperson who founded Capstone Mining Corp. in 2002 and is its President and Chief Executive Office and a Director of the company. Under his leadership, Capstone has grown from an exploration company, into a single asset company operating the Cozamin Mine, and then a leading intermediate copper producer, developer and exploration company by merging with Sherwood Copper (Minto and Kutcho), acquiring Far West Mining (Santo Domingo), developing the strategic partnership with Korea Resources Corporation and acquiring the Pinto Valley Mine from BHP Billiton Ltd. Pylot has led the transformation of what was a small exploration company in 2002 into a billion-dollar copper producer with mines and pro-

jects in the United States, Mexico and Chile, and a portfolio of exploration properties.

Pylot was born in Kelowna and raised in Revelstoke, British Columbia, Canada. In the mid-1980s, Pylot moved to Vancouver, where he attended Simon Fraser University. While there, he studied business and soon went on to work for PwC, a global network of firms delivering assurance, tax and consulting services. Shortly thereafter, he joined a local mining company as controller.

In the mid-1990s Pylot ventured into South America in search of precious metals, but his efforts turned up little and investor appetite for metals waned. In the early 2000s he re-formed his company and took it into Mexico in search of gold and silver. At the time the company was called Capstone Gold and had optioned a past-producing silver-lead-zinc mine with the intention to restart it. But exploratory drilling found abundant copper along with the silver, lead and zinc, so the company was able to refurbish the existing infrastructure and rapidly put Cozamin back into production for \$30 million, with copper as the primary product.

In 2008, Pylot led a US\$450M merger between his company and Sherwood Copper, bringing Sherwood's high-grade copper-gold Minto mine in Yukon, Canada into the Capstone fold. In 2011, Capstone purchased 70% of the Santo Domingo Project, a large-scale iron oxide-copper-gold development project in Chile. It is jointly owned with 30% holder, Korea Resources Corporation (KORES), the Korean state-owned resource acquisition enterprise. In 2013, Capstone purchased the Pinto Valley Operation for US\$650M. The Pinto Valley mine is a 54,800 tonne per day copper mine, located in the Globe-Miami mining district in Arizona.

In 2017 and 2019, Capstone sold its Kutcho project and Minto mine, to focus resources on opportunities that will have a more meaningful impact on the long-term growth of the company as it continues to advance.



Vicki Seppala General Manager, Climax Mine Freeport-McMoran Inc. Medal of Merit Recipient





Returning to university after working in another industry was difficult but a path desired in her quest for a better life for herself and young son. It was just a Mine and Geological Engineering recruiting brochure on the science wall at Glendale Community College, but it caught her eye and Seppala soon found herself moving to Tucson with her fourth grade son and enrolling in the University of Arizona Geological Engineering program where she earned her Bachelor of Science Degree. She received scholastic scholarships each year and graduated with honors; she also was chosen the 1994 Outstanding

Senior for the College of Engineering and Mines.

After graduation, Seppala was hired as a Geological Engineer with the Phelps Dodge Sierrita mine Her leadership skills and enthusiasm of new challenges propelled Seppala into operational roles of increasing responsibility rapidly rising to Mine Operations & Maintenance Superintendent. In 2003 she was promoted to Mine Technology Manager responsible for investigating, developing, and introducing new/existing technology to Freeport's copper mines in North and South America.

In 2006 Seppala was promoted to Mine Manager at Freeport's Candelaria operation near Copiapo, Chile, becoming the first woman Mine Manager in Chile. The Mining Industry in Chile was rapidly changing with respect to women in nontraditional roles at that time, and Seppala became a part of that change. She helped introduce women haul truck drivers at the Candelaria operation.

After 4 ½ years in Chile, Seppala transferred back to the United States landing at Morenci as the Mine Manager, Fragmentation & Loading and subsequently the Mine Engineering Manager. In 2014 she was appointed Director, Corporate Safety responsible for planning, directing and leading the implementation of safety programs and policies for Freeport-McMoRan Americas. In July 2018, Seppala was promoted to General Manager of the Climax Molybdenum Mine near Leadville, Colorado.

Born in Rogers, Arkansas, Seppala graduated high school in Glendale, Arizona. Away from work Seppala cherishes time spent with her son, Clay Seppala, his wife, LeAna, and their three daughters, Gwen, Charlotte and Rachel. Seppala thrives on adventure through work, travel and outdoor activities.

Seppala has spent her entire mining career at Freeport, is an active SME Member, sits on the Board of Directors of the Lowell Institute of Mineral Resources, and engages with many Women in Mining groups.



Victoria Peacey Senior Manager Permitting and Approvals Resolution Copper Medal of Merit Recipient





Born in Montreal, Canada, Vicky comes from a family with mining in its blood. Her dad is a miner, her sister is a miner, her brother-in-law is a miner and her husband is a miner. She attended the University of Western Ontario where she received a Bachelor of Science Degree in Applied Geoscience and a Master of Science Degree in Civil & Environmental Engineering.

Peacey has been with Resolution Copper since 2010 where she is presently the Senior Manager Permitting and Approvals and manages all federal, state and local agency approvals, agreements and permits and

makes sure that the company is sensitive to the environment and cultural heritage during the planning process and that the mine will be operated in a way that preserves and protects the natural surroundings.

Peacey joined Rio Tinto in 2002 as a Senior Environmental Engineer at Kennecott's Bingham Canyon Mine in Utah where she successfully designed and implemented a strategy to obtain multiple state permits for a major expansion of the Bingham Canyon Mine open pit, concentrator and tailings. This work included completion of all baseline data collection and impact assessments for groundwater, geochemistry, surface water and air as well as closure and reclamation.

In 2007 Peacey attended an intensive 4 week course at the London School of Business and Finance and participated in the Emerging Leaders Program.

She then moved to Marquette, Michigan in 2008 as Manager Environmental Affairs and Permitting for Rio Tinto's Kennecott Eagle Minerals where she developed and implemented a strategy to successfully obtain all Federal, State and County permits and approvals for a \$400M underground mine, concentrator and tailings facility. Production commenced in September 2014 ahead of schedule and on budget.

Peacey lives in Gold Canyon, Arizona with her husband and three children.

Peacey is on the Board of the American Exploration & Mining Association. She has been active with the Boyce Thomas Arboretum and has participated as a fundraiser for the Phoenix Indian Center.



William Sircy General Manager, Processing, Cerro Verde Freeport-McMoran Medal of Merit Young Professional Recipient





William Sircy earned a Bachelor of Science Degree in Chemical Engineering from The University of Arizona. While in University, Sircy worked as a summer intern at Freeport-McMoRan's Hydrometallurgical facility in Morenci, becoming the 5th generation of his family to work at Morenci. Upon graduation he was hired as a FMI plant metallurgist in the Bagdad SXEW facility where he helped commission the Concentrate Leach Demonstration Plant and worked with industry experts and helped in the development of the first stable commercial alternative anodes for the electrowinning of copper in a sulfate solution.

In 2005, Sircy moved back to Morenci as a Quality Analyst. Over the next 4 years he held a variety of positions and authored a paper, "Morenci Hydrometallurgical Process Improvements – Application of Six Sigma in Process Improvements" which he presented at the 2007 6th International Conference of Metallurgists CU. Sircy is also co-inventor on a FMI patent that describes a method to minimize solvent extraction interfacial shear and reduce organic entrainment.

Sircy transferred to Safford in 2009 as the SXEW Superintendent where he successfully led the design, installation and operation of a solvent extraction mix box capable of withstanding high internal forces. 2011 found Sircy back in Morenci as the Crushing and Conveying Manager. He oversaw the increase in primary crusher throughput from 119,000 tons per day to almost 200,000 and was instrumental in the design of the SW Mine for Leach (MFL) crushed leach stockpile which replaced the Stargo MFL system.

His next stop was in South America where he spent a little over 2 years in Chile at the El Abra operation as the Processing Manager and most recently in Peru at Cerro Verde. Sircy currently serves as the General Manager Processing.

Sircy speaks Spanish and is a member of SME.

Sircy and his wife Nicole have 3 children ages 4, 9, and 16. Outside of work Sircy is passionate about cars, golf, photography, and travel.



Cody Sutherlin General Manager, Surface Mining Newmont Goldcorp Medal of Merit Young Professional Recipient





Cody Sutherlin holds a Bachelor of Science Degree in Mining Engineering from the Montana School of Mines and Engineering. After graduating, Sutherlin began his career with Rio Tinto Minerals in 2007 and held both technical and operational roles in the company's Talc and Borate product groups. In 2012, Sutherlin joined Rio Tinto's Kennecott Copper Operation in Salt Lake City, UT as a superintendent of mine planning.

On April 10, 2013, a towering wall of dirt and rocks gave way and crashed down the side of the Bingham Canyon Mine, which was described as one of the biggest non-volcanic landslides in North America's modern history. Sutherlin worked with the mine technical team to develop a plan to recover from this massive slide, and a few weeks after the slide he was promoted to manage the entire remediation effort.

This was a massive job that was one of the most difficult in the mining industry. Sutherlin quickly assembled a high-performance team that was successful in the remediation effort, and was able to do so faster than anyone thought possible. The speed at which the remediation work was accomplished meant that the mine could return to full operations sooner than the original schedule, which prevented large-scale impacts to the operation and its employees. And most importantly the remediation team did all of the work safely. At the time he was only 29 years old. The mine is now back to normal operations mining hundreds of millions of tons per year and producing nearly 300,000 tons of copper annually.

Subsequently, in late 2015 Sutherlin was named General Manager, Site Infrastructure and Services, for Oyu Tolgoi LLC. Oyu Tolgoi is a copper-gold mine in the South Gobi region of Mongolia which is managed and operated by Rio Tinto. Sutherlin was responsible for logistics, electrical services, mechanical services, construction and engineering, heating, water utilities, and camp and site services.

As of 2018, he currently serves as a General Manager of Surface Mining for Newmont Goldcorp in Elko, Nevada. Sutherlin continues to bring a strong commitment to safety and enjoys developing solutions to complex challenges.

Sutherlin grew up on his family's ranch in Stevensville, MT where he learned a solid work ethic and the ability to persevere. Cody attributes a lot of his success to what he learned on the family ranch. Cody and his wife Mindy have a young boy named Tripp and they enjoy getting to spend time together with family and friends.

NEWMONT

GOLDCORP.

Golder

2019 Industry Partnership Award Recipient



Renowned for technical excellence in geosciences and environmental solutions, Golder is a global, 100% employee-owned consulting firm with over a half century of successful service to our clients. Working across all seven continents, our 6,500 professionals flourish in an environment where collaboration and innovation are fostered. We deliver a level of excellence and expertise that is safe, innovative, industry-leading and is always focused on a shared vision of success with our clients.

Golder's global mining business provides integrated engineering and environmental services to achieve the objectives of our mining clients in all market conditions. Our team of over 1,800 dedicated mining professionals work across all stages of the mine life cycle, from exploration to closure. Golder's full mining solutions include:

- ♦ Mine Engineering, Geology and Stability
- ♦ Mine Waste
- ♦ Mine Water
- ♦ Mine Environment and Permitting
- ♦ Mine Closure
- Mine Infrastructure and Construction Services

Our strong presence in the Southwest allows us to draw on both global and local expertise to deliver innovative, cost-effective mining solutions to our clients in the region. Golder values the relationships we have cultivated throughout the Southwest via our offices in Phoenix and Tucson, Arizona, and Albuquerque and Silver City, New Mexico.

Golder is proud to contribute to industry leading initiatives such as developing the closure guidelines for Asia-Pacific Economic Cooperation (APEC) nations and the recently released International Council on Mining & Metals (ICMM) Mine Closure Good Practice Guide. Industry staples, the Mathew's Method and the Scaled Span Method for crown pillar stability assessments, were both developed by Golder. Our teams have also contributed to many mining guidelines, including authoring the mine waste dump and stockpile design guidelines and the Global Acid Rock Drainage Guide. We are proud to take an active role in the mining community through our involvement in local, national and international mining associations, committees and conferences.

At Golder, we thrive on challenges, and there's no challenge we are more passionate about than the safe, economical and sustainable development of Earth's natural resources.



Outreach Corner

MFSW Outreach Activities: June-July 2018

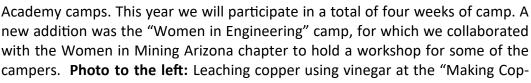


With summer in full swing we are busy preparing for the next academic year. We have launched a new update to the webpage (minerals.arizona.edu/content/education-outreach) allowing educators the ability to request presentations online. In addition, we have established a newsletter to allow us to connect more formally with our audience. Please encourage any Tucson-area educators in your network to sign up. In addition to updated marketing materials, we are also working on updating classroom presentations and activities.

Our program has had the opportunity to begin collaborating with major science education groups in recent months. We participated in two days of the International Science and Engineering Fair held in Phoenix. We held a workshop for science fair participants from around the world where the students took core samples, constructed a mine plan and mined bb's from kinetic sand. **Photo to the right:** Purple team collaborating on their mine plan at the International Science and Engineering Fair – Observer Day workshop.



We also presented as part of the public expo to local middle and high school students. As usual we are assisting the Mining and Geological Engineering department with their participation in the Summer Engineering



per" workshop at the Women in Engineering Summer Engineering Academy camp. **Photo to the right:** Making copper-plated nickels in the "Making Copper" work-

shop at the Women in Engineering Summer Engineering Academy workshop.











Outreach Cont.



Event (location)	Type of event (tabling, lecture, workshop, tour)	Number of interactions (age of most participants)
Tour of San Xavier Mine – Cananea Technology Institute	Tour	15 (college-aged)
Sonoran Foothills STEM week	Guest presentation	110 (7 th graders)
International Science and Engineering Fair – Observer Day	Guest presentation	175 (6 th – 12 th grade)
International Science and Engineering Fair – Public Day	Tabling event	200 (6 th – 12 th grade)
Summer Engineering Academy Counsellor Training	Guest presentation	9 (college-aged)
Summer Engineering Academy – Explore Engineering 1	Guest presentation	28 (9 th – 10 th grade)
Summer Engineering Academy – Explore Engineering 2	Guest presentation	43 (11 th – 12 th grade)
Summer Engineering Academy – Women in Engineering	Guest presentation	13 (11 th – 12 th grade)

FORESIGHT COMMITTEE

The Foresight Committee is asking our membership for help in getting the Mining Education Outreach Program into the schools. If you have children or grandchildren in school and have a contact there, let us know so that we can pass it on to the Outreach Coordinator to schedule a visit to the school to explain how we use minerals in our lives, where minerals come from, and what mining really is.

MINING MATTERS



MEET YOUR GOVERNORS



Steve Holmes (Term expires 2020)



Steve Holmes is retired after a 37 year career in the mining industry where he was involved in mining operations and planning and project management in Canada, Chile and the Southwestern US. He held key management roles at Barrick Gold, KGHM International, Ray Mine for Asarco, the Mine Technology Group, Chino Mines Company, Sierrita, the El Paso Refinery and Rod Plant, and Morenci .Steve holds a BS in Mining Engineering from the University of Arizona and a MBA from Western New Mexico University. Steve is currently the President-Elect for the SME Foundation and has served on the SME Board. He is also on the Governing Board for the AZ Section of SME and the chair of the Exec

Committee of the Industry Leadership Board for Arizona's Mining Engineering and Geological Sciences Dept. in the U of A's College of Engineering. Steve speaks Spanish. He and his wife reside in Safford, Arizona.

Kathy Arnold (Term expires 2022)



Kathy Arnold is Director of Environment for Hudbay Mineral's Arizona Business Unit. She works on permitting, mitigation, planning and compliance activities for the Rosemont Copper Project. As part of her duties, Arnold directs operations for the 30,000-acre Rosemont Ranch and also leads the corporate affairs team that manages communications, stakeholder management, government affairs and community giving. Kathy is a graduate of Montana Tech with a BS in Mineral Processing Engineering, BS in Computer Science and a BS in Mathematics with an MS focused in Project and Engineering Management and is a licensed professional engineer. Previously she worked for Asarco for 17 years and consulted for 3 years prior to joining the Rosemont team. She is active in SME and Women in Mining. She is currently on the board

of the Montana Tech Foundation; the Montana Tech - Metallurgical and Materials Engineering Department, Industry Advisory Board; and is a member of the board of the Tucson Metro Chamber of Commerce.

Allison Moore (Term expires 2022)



Allison has her BS in Mining and Mineral Engineering from the University of Arizona. She began her career with Freeport-McMoRan in the Tucson Office as a long range planner traveling to variety of mine sites, providing plans, designs and schedules. After 2 years she transferred to Morenci as a Mining Engineer II providing support in slope stability; submitting daily blasting plans and evaluating the best blasting methods. She joined Rummel Construction as a Project Engineer in December 2017 and in 2018 became Rummel's recruiter. Allison is a member of SME, ISEE and AGC. Outside of work, she loves to travel (outside of the United States), try new food, and spend time with friends and family. She and husband can also be found cheering on the Wildcats!

MEET YOUR GOVERNORS

David Rhoades (Term expires 2022)



David Rhoades has a BS in Mining Engineering from the University of Arizona and started his career as a Project Engineer with Modular Mining. After five years he joined Asarco as a Dispatch Engineer before moving on to Morenci where he held various engineering, operations and maintenance positions. Rhoades was named General Manager of Chino Mines in 2004; General Manager of FMI's SE Arizona Administration in 2009; General Manager of the Safford Operation in 2015 and has been General Manager at Sierrita since 2016. He is a member of SME.

Newest Honorary Member—Dr. Roshan Bhappu

In recognition of outstanding and long-time service to the Foundation, the Board of Governors as authorized in the By-Laws of the Mining Foundation of the Southwest has designated and awarded a lifetime Honorary Membership to Dr. Roshan Bhappu effective May 9, 2019. An Honorary Member is excused from further annual membership dues and retains all privileges of a voting member.

Roshan served as Vice President in 2004 and President in 2005 as well as serving on the Board of Governors for over 25 years, on the Hall of Fame Committee for 17 years and as Hall of Fame Chairman twice.

Jean Austin and her husband Doug met with Roshan on June 20 along with Board Member Terry McNulty, Roshan's son Manek and his sister Ruby to present him with the letter from MFSW president Chris Wilson honoring him with "Honorary Membership" in the foundation. Roshan was very thrilled and happy to meet with mining people and talk old times. He was so thankful that this honor was bestowed upon him.



From left to right: Doug Austin, Jean Austin, Terry McNulty and Roshan Bhappu.

IN MEMORIAM

James D. Toole 1940 -2019

2013 Inductee into the American Mining Hall of Fame



James Donohoe Toole was raised in the coal mining region of Pennsylvania by his mother, Alberta and his older sister, Sally. Jim never knew his father who passed at a very young age, but spent much time with his six uncles who instilled in him his love for mining and explosives. Jim attended Scranton Preparatory High School and graduated from King's College in Wilkes-Barre, Pennsylvania. After graduation, he proudly served as a U.S. Marine. Jim began his career in explosives with Hercules Inc., working on the Minnesota Iron Range and then the Panama Canal. Jim then moved to Tucson and soon after founded Southwest Energy, a mining services and explosives manufacturing company now in its 46th year of operation. In 2013, Jim was honored as the Hall of Fame recipient from the Mining Foundation of the Southwest. Toole believed that the greatest assets of Southwest Energy are the exceptional employees and the willingness of the company to share its profitability with all of its people and the communities where they live and work. Jim is survived by his wife of 53 years, Molly; children, James D. Toole (Ill (Kathy Jo), Elizabeth Toole Goodrow (Cristos), Molly Toole Roman (Mark), Thomas D. Toole (Breanne), Sarah Toole Cottingham (Chris) and Timothy J. Toole (Brittany); and many grandchildren.

Ralph Brooke Sievwright 1924 -2019

2011 Medal of Merit Recipient



Ralph grew up in Jerome when it was still an active mining town. The mining industry was in his blood, and after college at Northern Arizona University and the University of Arizona, service in the Army Air Corps during World War II, and law school at the University of Arizona, he joined the law firm of Guynn & Twitty, a boutique practice specializing in public land issues and mining law. In 1958 the firm became Twitty, Sievwright & Mills and continued to specialize in providing sophisticated legal advice to mining companies for the next 50 years. Ralph's service to the industry was honored by the Mining Foundation of the Southwest in 2011, when he was awarded the Foundation's Medal of Merit. Throughout his career, Ralph represented a wide range of mining industry clients, but his client base was in the Southwest, especially Arizona, New Mexico and Nevada. He served as chief negotiator for the Magma Copper Company in its labor negotiations with seven unions for over 40 years. He presented legal arguments before the United States Supreme Court, the United States Court of Appeals – Ninth Circuit and other federal and state courts. He has been an active member of SME and has served on the Board of Directors of the Arizona Conference for many years, providing both legal and practical assistance and

knowledge where needed. He also was a member of the Rocky Mountain Mineral Law Foundation. He was, well-known as a leader in labor law, mining law and compliance with complex environmental laws, especially as they dealt with copper smelting operations. He is survived by his wife, Carolyn; daughters, Jan Feltz (Traudel Luebbers) and Kim Mitchell (Jay) and grandchildren, Christopher Feltz (Staci), Karen Feltz, Laura Tully (Oliver) and Sarah Ediger (Jake).

MEMBERS' CORNER

We now have 9 new members. Thank you all for your support of the MFSW. Total membership is at 128. On behalf of Chris Wilson, our 2019 President, the Foundation wishes to extend a warm welcome to:

Timothy Ralston - is the Manager of Land, Permitting & Regulatory Affairs at Capstone Mining's Pinto Valley Mine where he has worked since 2012. He attended the University of Cincinnati and graduated with a BS in Geology. Tim's expertise is in environmental permitting, sustainability, and renewable energy development. He is the secretary/treasurer of the SME Pinal Mountain Section and is actively involved with the Arizona Mining Assoc. and American Exploration & Mining Assoc. He and his bride Riechia of 29 years have two grown children, enjoy travel, motorcycle riding and are active in their church.

Gene Waken - is the Strategic Development Manager for Eichleay in the Southwest (www.eichleay.com) a closely held, 5th generation EPCM, engineering, design and construction management firm, specialists in mining, processing, refining and material handling facilities. They also provide professional staff augmentation personnel, short term, project length or on going. Gene is an active member of the Arizona Mexico Commission, the Amigos, a life director of the Associated General Contractors of America and former National Chairman of its Heavy Industrial Division, the Beavers as well as an active Rotarian in the Nogales, Arizona Club and a Fourth Degree knight of Columbus.

December 7, 2019 Hall of Fame Awards Banquet Information

SPONSORSHIP OPPORTUNITY

Sponsorships are offered at 4 levels: Diamond (\$10,000), Platinum (\$5,000), Gold (\$2,500) & Silver (\$1,000). All sponsors are recognized on the Foundation's website, press releases, banquet program and during the banquet ceremony.

TICKET SALES

Voting, Silver and Gold members in good standing are extended 2 member pricing banquet tickets at \$200 per ticket. Non-member tickets are \$250.

HOTEL RESERVATION

reservations can be made on line at https://book.passkey.com/go/SMEArizona2019 (preferred) or by calling 1-877-622-3140 (ask for "SME Arizona Conference / MFSW / Summit 2019"). Attendees are extended a special room rate of \$138 + tax per night, discounted \$85 golf rate and a 20% spa only discount. Hotel The contracted cutoff date for reservations at the group rate is Friday, November 8th.

For additional information, please go to: www.miningfoundationsw.org



